

**A simulation case study of production planning and control in printed wiring board manufacturing.** / Korhonen, H. M E; Heikkilä, Jussi; Törnwall, Jon M.

In: Winter Simulation Conference Proceedings, Vol. 2, 01.12.2001, p. 844-847.

Research output: Contribution to journal › Conference article › Scientific › peer-review

**HCI and homecare : Connecting families and clinicians.** / Mamykina, Lena; Bardram, Jakob E.; Korhonen, Ilkka; Mynatt, Elizabeth; Pratt, Wanda.

Conference on Human Factors in Computing Systems - Proceedings. 2004. p. 1715-1716.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Classification of large graphs by a local tree decomposition.** / Emmert-Streib, Frank; Dehmert, Matthias; Kilian, Jürgen.

Proceedings of the 2005 International Conference on Data Mining, DMIN'05. 2005. p. 200-207.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Mobile Journalist Toolkit : A field study on producing news articles with a mobile device.** / Jokela, Tero; Väättäjä, Heli; Koponen, Tiina.

MindTrek 2009 - 13th International Academic MindTrek Conference: Everyday Life in the Ubiquitous Era. 2009. p. 45-52.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Pure e-learning course in information security.** / Koskinen, Jukka A.; Kelo, Tomi O.

Proceedings of SIN'09, Second International Conference on Security of Information and Networks, Famagusta, North Cyprus, October 6-10, 2009. ed. / A. Elci. 2009. p. 8-13 1626200.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Towards certifying the testing process of open-source software : New challenges or old methodologies?** / Morasca, Sandro; Taibi, Davide; Tosi, Davide.

Proceedings of the 2009 ICSE Workshop on Emerging Trends in Free/Libre/Open Source Software Research and Development, FLOSS 2009. 2009. p. 25-30 5071356.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Wrench feasible workspace analysis of cable-driven parallel manipulators using LMI approach.** / Loloie, Azadeh Zarif; Mohammadi Aref, Mohammad; Taghirad, Hamid D.

IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM. 2009. p. 1034-1039 5229723.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Integrated controller for an over-constrained cable driven parallel manipulator : KNTU CDRPM.** / Vafaei, Alaleh; Aref, Mohammad M.; Taghirad, Hamid D.

Proceedings - IEEE International Conference on Robotics and Automation. 2010. p. 650-655 5509991.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Predicting OSS trustworthiness on the basis of elementary code assessment.** / Lavazza, Luigi; Morasca, Sandro; Taibi, Davide; Tosi, Davide.

ESEM 2010 - Proceedings of the 2010 ACM-IEEE International Symposium on Empirical Software Engineering and Measurement. 2010. 1852834.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**The QualiSPo approach to OSS product quality evaluation.** / Del Bianco, Vieri; Lavazza, Luigi; Morasca, Sandro; Taibi, Davide; Tosi, Davide.

3rd Int. Workshop on Emerging Trends in Free/Libre/Open Source Software Research and Development, FLOSS-3, in Conj. with the 32nd ACM/IEEE International Conference on Software Engineering, ICSE 2010. 2010. p. 23-28.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Conversion algorithms and implementations for koblitz curve cryptography.** / Brumley, Billy Bob; Jarvinen, Kimmo U.

In: IEEE Transactions on Computers, Vol. 59, No. 1, 5255226, 04.01.2010, p. 81-92.

Research output: Contribution to journal › Article › Scientific › peer-review

**A model-based schedule representation for heterogeneous mapping of dataflow graphs.** / Wu, Hsiang Huang; Shen, Chung Ching; Sane, Nimish; Plishker, William; Bhattacharyya, Shuvra S.  
2011 IEEE International Symposium on Parallel and Distributed Processing, Workshops and Phd Forum, IPDPSW 2011. 2011. p. 70-81 6008822.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Bit-sliced binary normal basis multiplication.** / Brumley, Billy; Page, Dan.

Proceedings - 20th IEEE Symposium on Computer Arithmetic, ARITH-20. 2011. p. 205-212 5992128.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Comparison of gaze-to-objects mapping algorithms.** / Špakov, Oleg.

Proceedings of the 1st Conference on Novel Gaze-Controlled Applications, NGCA'11. 2011. 6.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Database-driven tool support for DisCo executable specifications.** / Nummenmaa, Jyrki; Nummenmaa, Timo.

SPLST'11 - Proceedings 12th Symposium on Programming Languages and Software Tools. 2011. p. 44-54.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Designing tactile feedback for piezo buttons.** / Lylykangas, Jani; Surakka, Veikko; Salminen, Katri; Raisamo, Jukka;

Laitinen, Pauli; Rönning, Kasper; Raisamo, Roope.

CHI 2011 - 29th Annual CHI Conference on Human Factors in Computing Systems, Conference Proceedings and Extended Abstracts. 2011. p. 3281-3284.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Facial expression classification based on local spatiotemporal edge and texture descriptors.** / Gizatdinova, Yulia; Surakka, Veikko; Zhao, Guoying; Mäkinen, Erno; Raisamo, Roope.

Selected Papers from the Proceedings of the 7th International Conference on Methods and Techniques in Behavioral Research - Digital Edition, MB'10. 2011. 21.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Framework for designing and evaluating game achievements.** / Hamari, Juho; Eranti, Veikko.

Proceedings of DiGRA 2011 Conference: Think Design Play. 2011.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Generative modeling for maximizing precision and recall in information visualization.** / Peltonen, Jaakko; Kaski, Samuel.

In: Journal of Machine Learning Research, Vol. 15, 2011, p. 579-587.

Research output: Contribution to journal › Article › Scientific › peer-review

**Narrative friction in Alternate Reality Games : Design insights from conspiracy for good.** / Stenros, Jaakko; Holopainen, Jussi; Waern, Annika; Montola, Markus; Ollila, Elina.

Proceedings of DiGRA 2011 Conference: Think Design Play. 2011.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Of discs, boxes and cartridges : The material life of digital games.** / Toivonen, Saara; Sotamaa, Olli.

Proceedings of DiGRA 2011 Conference: Think Design Play. 2011.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**On delay distribution in IEEE 802.11 wireless networks.** / Ivanov, Stepan; Botvich, Dmitri; Balasubramaniam, Sasitharan.

16th IEEE Symposium on Computers and Communications, ISCC'11. 2011. p. 254-256 5983849.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**On the costs of multiple trajectory pointing methods.** / Quinn, Philip; Cockburn, Andy; Rähkä, Kari Jouko; Delamarche, Jérôme.

CHI 2011 - 29th Annual CHI Conference on Human Factors in Computing Systems, Conference Proceedings and Extended Abstracts. 2011. p. 859-862.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Reducing the number of unit tests with design by contract.** / Hakonen, Harri; Hyrynsalmi, Sami; Järvi, Antero.  
Computer Systems and Technologies - 12th International Conference, CompSysTech'11 - Proceedings. Vol. 578 2011. p. 161-166.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Scheduling of CAL actor networks based on dynamic code analysis.** / Boutellier, Jani; Silven, Olli; Raulet, Mickael.  
2011 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2011 - Proceedings. 2011. p. 1609-1612 5946805.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Silicon capillary gripper with self-alignment capability.** / Sariola, Veikko; Liimatainen, Ville; Tolonen, Tatu; Udd, Reidar; Zhou, Quan.

2011 IEEE International Conference on Robotics and Automation, ICRA 2011. 2011. p. 4098-4103 5979980.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Social and privacy aspects of a system for collaborative public expression.** / Holopainen, Jussi; Lucero, Andrés; Saarenpää, Hannamari; Nummenmaa, Timo; Ali, Abdallah El; Jokela, Tero.  
Proceedings of the 8th International Conference on Advances in Computer Entertainment Technology, ACE 2011. 2011. 23.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Squeeze vs. tilt : A comparative study using continuous tactile feedback.** / Hoggan, Eve; Trendafilov, Dari; Ahmaniemi, Teemu; Raisamo, Roope.

CHI EA 2011 - 29th Annual CHI Conference on Human Factors in Computing Systems, Conference Proceedings and Extended Abstracts. 2011. p. 1309-1314.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**System level performance simulation of distributed GENESYS applications on multi-core platforms.** / Khan, Subayal Aftab; Saastamoinen, Jukka; Tiensyrjä, Kari; Nurmi, Jari.

Proceedings - IEEE 9th International Conference on Dependable, Autonomic and Secure Computing, DASC 2011. 2011. p. 313-320.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**The making of Nordic larp : Documenting a tradition of ephemeral co-creative play.** / Stenros, Jaakko; Montola, Markus.  
Proceedings of DiGRA 2011 Conference: Think Design Play. 2011.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Guidelines for improving the testing process of open source software.** / Morasca, Sandro; Taibi, Davide; Tosi, Davide.  
In: International Journal of Open Source Software and Processes, Vol. 3, No. 2, 04.2011, p. 1-22.

Research output: Contribution to journal › Article › Scientific › peer-review

**Multimodal and mobile conversational Health and Fitness Companions.** / Turunen, Markku; Hakulinen, Jaakko; Ståhl, Olov; Gambäck, Björn; Hansen, Preben; Rodríguez Gancedo, Mari C.; De La Cámara, Raúl Santos; Smith, Cameron; Charlton, Daniel; Cavazza, Marc.

In: Computer Speech and Language, Vol. 25, No. 2, 04.2011, p. 192-209.

Research output: Contribution to journal › Article › Scientific › peer-review

**Some background on dialogue management and conversational speech for dialogue systems.** / Wilks, Yorick; Catizone, Roberta; Worgan, Simon; Turunen, Markku.

In: Computer Speech and Language, Vol. 25, No. 2, 04.2011, p. 128-139.

Research output: Contribution to journal › Review Article › Scientific › peer-review

**A survey on open source software trustworthiness.** / Del Bianco, Vieri; Lavazza, Luigi; Morasca, Sandro; Taibi, Davide.  
In: IEEE Software, Vol. 28, No. 5, 09.2011, p. 67-75.

Research output: Contribution to journal › Article › Scientific › peer-review

**Interaction strategies for an affective conversational agent.** / Smith, Cameron; Crook, Nigel; Dobnik, Simon; Charlton, Daniel; Boye, Johan; Pulman, Stephen; Santos de la Camara, Raul; Turunen, Markku; Benyon, David; Bradley, Jay; Gambäck, Björn; Hansen, Preben; Mival, Oli; Webb, Nick; Cavazza, Marc.

In: Presence: Teleoperators and Virtual Environments, Vol. 20, No. 5, 10.2011, p. 395-411.

Research output: Contribution to journal › Article › Scientific › peer-review

**Managing concern knowledge in software systems.** / Hammouda, Imed; Koskimies, Kai; Mikkonen, Tommi.

In: INTERNATIONAL JOURNAL OF SOFTWARE ENGINEERING AND KNOWLEDGE ENGINEERING, Vol. 21, No. 7, 11.2011, p. 957-987.

Research output: Contribution to journal › Article › Scientific › peer-review

**2nd international workshop on pervasive eye tracking and mobile eye-based interaction (PETMEI 2012) : Proposal for a workshop (mini-track) at UbiComp 2012.** / Bulling, Andreas; Bröne, Geert; Cheng, Shiwei; Majaranta, Päivi.

UbiComp'12 - Proceedings of the 2012 ACM Conference on Ubiquitous Computing. 2012. p. 673-676.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**An empirical investigation of perceived reliability of open source Java programs.** / Lavazza, Luigi; Morasca, Sandro; Taibi, Davide; Tosi, Davide.

27th Annual ACM Symposium on Applied Computing, SAC 2012. 2012. p. 1109-1114.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**An exploratory study of eye typing fundamentals : Dwell time, text entry rate, errors, and workload.** / Rähkä, Kari Jouko; Ovaska, Salla.

Conference Proceedings - The 30th ACM Conference on Human Factors in Computing Systems, CHI 2012. 2012. p. 3001-3010.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Briefing news reporting with mobile assignments - Perceptions, needs and challenges.** / Väättäjä, Heli; Egglestone, Paul. Proceedings of the ACM 2012 conference on Computer Supported Cooperative Work CSCW'12 Seattle, WA, USA, February 11-15, 2012. New York, NY : ACM, 2012. p. 485-494 (ACM Conference on Computer Supported Cooperative Work).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Comparison of video-based pointing and selection techniques for hands-free text entry.** / Gizatdinova, Yulia; Špakov, Oleg; Surakka, Veikko.

Proceedings of the Working Conference on Advanced Visual Interfaces, AVI 2012. 2012. p. 132-139.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Continuous Edgewise : Dictionary-based disambiguation instead of explicit segmentation by the user.** / Martin, Benoît; Isokoski, Poika; Karmann, Gregory; Rollinger, Thomas.

Proceedings of the Working Conference on Advanced Visual Interfaces, AVI 2012. 2012. p. 357-364.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Designing and evaluating text entry methods.** / Kristensson, Per Ola; Clawson, James; Dunlop, Mark; Isokoski, Poika; Roark, Brian; Vertanen, Keith; Waller, Annalu; Wobbrock, Jacob.

Extended Abstracts - The 30th ACM Conference on Human Factors in Computing Systems, CHI 2012. 2012. p. 2747-2750.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Enhanced gaze interaction using simple head gestures.** / Špakov, Oleg; Majaranta, Päivi.

UbiComp'12 - Proceedings of the 2012 ACM Conference on Ubiquitous Computing. 2012. p. 705-710.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**FS-PGBR : A scalable and delay sensitive cloud routing protocol.** / Mineraud, Julien; Donnelly, William; Balasubramaniam, Sasitharan; Kangasharju, Jussi.

Proceedings of the ACM SIGCOMM 2012 and Best Papers of the Co-located Workshops. Vol. 42 4. ed. 2012. p. 301-302.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Inkjet-printed monopole antennas for enhanced-range WBAN and wearable biomonitoring application.** / Kim, Sangkil; Kawahara, Yoshihiro; Tentzeris, Manos M.

MobileHealth'12 - Proceedings of the 2nd ACM International Workshop on Pervasive Wireless Healthcare. 2012. p. 33-38.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Novel approaches to crawling important pages early.** / Alam, Md Hijbul; Ha, Jong Woo; Lee, Sang Keun.

In: Knowledge and Information Systems, Vol. 33, No. 3, 2012, p. 707-734.

Research output: Contribution to journal › Article › Scientific › peer-review

**On the definition of dynamic software measures.** / Lavazza, Luigi; Morasca, Sandro; Taibi, Davide; Tosi, Davide.

In: International Symposium on Empirical Software Engineering and Measurement, 2012, p. 39-48.

Research output: Contribution to journal › Article › Scientific › peer-review

**Parameterized scheduling for signal processing systems using topological patterns.** / Wu, Shenpei; Shen, Chung Ching; Sane, Nimish; Davis, Kelly; Bhattacharyya, Shuvra S.

2012 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2012 - Proceedings. 2012. p. 1561-1564 6288190.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Power allocation in multi-node cooperative network in Rician fading channels.** / Fikadu, Mulugeta K.; Elmusrati, Mohammed; Virrankoski, Reino.

2012 IEEE 8th International Conference on Wireless and Mobile Computing, Networking and Communications, WiMob 2012. 2012. p. 496-501 6379119.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**SenSprout : Inkjet-printed soil moisture and leaf wetness sensor.** / Kawahara, Yoshihiro; Lee, Hoseon; Tentzeris, Manos M.

UbiComp'12 - Proceedings of the 2012 ACM Conference on Ubiquitous Computing. 2012. p. 545.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**SiMPE : 7th Workshop on speech and sound in mobile and pervasive environments.** / Nanavati, Amit Anil; Rajput, Nitendra; Rudnicky, Alexandar I.; Turunen, Markku; Sandholm, Thomas; Munteanu, Cosmin; Penn, Gerald.

MobileHCI'12 - Companion Proceedings of the 14th International Conference on Human Computer Interaction with Mobile Devices and Services. 2012. p. 251-253.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Systematic integration of flowgraph- and module-level parallelism in implementation of DSP applications on multiprocessor systems-on-chip.** / Zhou, Zheng; Shen, Chung Ching; Plishker, William; Wu, Hsiang Huang; Bhattacharyya, Shuvra S.

ICSP 2012 - 2012 11th International Conference on Signal Processing, Proceedings. Vol. 1 2012. p. 402-408 6491686.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Barriers to task-based information access in molecular medicine.** / Kumpulainen, Sanna; Järvelin, Kalervo.

In: JOURNAL OF THE ASSOCIATION FOR INFORMATION SCIENCE AND TECHNOLOGY, Vol. 63, No. 1, 01.2012, p. 86-97.

Research output: Contribution to journal › Article › Scientific › peer-review

**SymbolChat : A flexible picture-based communication platform for users with intellectual disabilities.** / Keskinen, Tuuli; Heimonen, Tomi; Turunen, Markku; Rajaniemi, Juha Pekka; Kauppinen, Sami.

In: Interacting with Computers, Vol. 24, No. 5, 09.2012, p. 374-386.

Research output: Contribution to journal › Article › Scientific › peer-review

**Elastic image registration for guiding focal laser ablation of prostate cancer : Preliminary results.** / Makni, Nasr; Puech, Philippe; Colin, Pierre; Azzouzi, Abdelrahmene; Mordon, Serge; Betrouni, Nacim.  
In: Computer Methods and Programs in Biomedicine, Vol. 108, No. 1, 10.2012, p. 213-223.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Focused multi-task learning in a Gaussian process framework.** / Leen, Gayle; Peltonen, Jaakko; Kaski, Samuel.  
In: Machine Learning, Vol. 89, No. 1-2, 10.2012, p. 157-182.  
Research output: Contribution to journal › Article › Scientific › peer-review

**'Aie-studio' - A pragmatist aesthetic approach for procedural sound design.** / Luhtala, Matti; Turunen, Markku; Hakulinen, Jaakko; Keskinen, Tuuli.  
Proceedings of the 8th Audio Mostly: A Conference on Interaction with Sound, AM 2013 - In Cooperation with ACM SIGCHI. Association for Computing Machinery, 2013. 7.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**A lightweight many-to-many authentication protocol for near field communications.** / Petrov, Vitaly; Komar, Maria; Koucheryavy, Yevgeni.  
Proceedings of the 2013 21st IEEE International Conference on Network Protocols, ICNP 2013. IEEE COMPUTER SOCIETY PRESS, 2013. 6733633.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**A movable immaterial volumetric display.** / Rakkolainen, Ismo; Sand, Antti.  
SIGGRAPH Asia 2013 Posters, SA 2013. 2013. 2.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Checking visual data flow programs with finite process models.** / Nummenmaa, Jyrki; Marttila-Kontio, Maija; Nummenmaa, Timo.  
13th Symposium on Programming Languages and Software Tools, SPLST 2013 - Proceedings. University of Szeged, 2013. p. 245-258.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Dynamic action recognition based on dynemes and Extreme Learning Machine.** / Iosifidis, Alexandros; Tefas, Anastasios; Pitas, Ioannis.  
In: Pattern Recognition Letters, Vol. 34, No. 15, 2013, p. 1890-1898.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Front-camera video recordings as emotion responses to mobile photos shared within close-knit groups.** / Cui, Yanqing; Kangas, Jari; Holm, Jukka; Grassel, Guido.  
CHI 2013: Changing Perspectives, Conference Proceedings - The 31st Annual CHI Conference on Human Factors in Computing Systems. 2013. p. 981-990.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Gestures and widgets : Performance in text editing on multi-touch capable mobile devices.** / Fucella, Vittorio; Isokoski, Poika; Martin, Benoît.  
CHI 2013: Changing Perspectives, Conference Proceedings - The 31st Annual CHI Conference on Human Factors in Computing Systems. 2013. p. 2785-2794.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Guest editorial.** / Ellervee, Peeter; Nurmi, Jari.  
In: Microprocessors and Microsystems, Vol. 37, No. 4-5, 2013, p. 430-431.  
Research output: Contribution to journal › Article › Scientific › peer-review

**How to study programming on mobile touch devices - Interactive Python code exercises.** / Ihantola, Petri; Helminen, Juha; Karavirta, Ville.  
Proceedings - 13th Koli Calling International Conference on Computing Education Research, Koli Calling 2013. 2013. p. 51-58.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Information retrieval perspective to meta-visualization.** / Peltonen, Jaakko; Lin, Ziyuan.

In: Journal of Machine Learning Research, Vol. 29, 2013, p. 165-180.

Research output: Contribution to journal › Article › Scientific › peer-review

**Long-term tracking through failure cases.** / Lebeda, Karel; Hadfield, Simon; Matas, Jiri; Bowden, Richard.

Proceedings - 2013 IEEE International Conference on Computer Vision Workshops, ICCVW 2013. Institute of Electrical and Electronics Engineers Inc., 2013. p. 153-160 6755891.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Mixed reality with multimodal head-mounted pico projector.** / Sand, Antti; Rakkolainen, Ismo.

Proceedings of the Virtual Reality International Conference on Laval Virtual, VRIC 2013. 2013. 14.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**On the optimal class representation in linear discriminant analysis.** / Iosifidis, Alexandros; Tefas, Anastasios; Pitas, Ioannis.

In: IEEE Transactions on Neural Networks and Learning Systems, Vol. 24, No. 9, 2013, p. 1491-1497.

Research output: Contribution to journal › Article › Scientific › peer-review

**Power harvesting from microwave oven electromagnetic leakage.** / Kawahara, Yoshihiro; Bian, Xiaoying; Shigeta, Ryo; Vyas, Rushi; Tentzeris, Manos M.; Asami, Tohru.

UbiComp 2013 - Proceedings of the 2013 ACM International Joint Conference on Pervasive and Ubiquitous Computing. 2013. p. 373-381.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Reading on-screen text with gaze-based auto-scrolling.** / Sharmin, Selina; Špakov, Oleg; Rähkä, Kari Jouko.

Proceedings of the 2013 Conference on Eye Tracking South Africa, ETSA 2013. 2013. p. 24-31.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Recording and analyzing in-browser programming sessions.** / Helminen, Juha; Ihanntola, Petri; Karavirta, Ville.

Proceedings - 13th Koli Calling International Conference on Computing Education Research, Koli Calling 2013. 2013. p. 13-22.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**SiMPE : 8th workshop on speech and sound in mobile and pervasive environments.** / Nanavati, Amit A.; Rajput, Nitendra; Srivastava, Saurabh; Erkut, Cumhur; Jylhä, Antti; Rudnicky, Alexander I.; Serafin, Stefania; Turunen, Markku.

MobileHCI 2013 - Proceedings of the 15th International Conference on Human-Computer Interaction with Mobile Devices and Services. 2013. p. 626-629.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**The visual object tracking VOT2013 challenge results.** / Kristan, Matej; Pflugfelder, Roman; Leonardis, Aleš; Matas, Jiri; Porikli, Fatih; Čehovin, Luka; Nebhay, Georg; Fernandez, Gustavo; Vojtíš, Tomáš; Gatt, Adam; Khajenezhad, Ahmad; Salahledin, Ahmed; Soltani-Farani, Ali; Zarezade, Ali; Petrosino, Alfredo; Milton, Anthony; Bozorgtabar, Behzad; Li, Bo; Chan, Chee Seng; Heng, Cherkeng; Ward, Dale; Kearney, David; Monekosso, Dorothy; Karaimmer, Hakki Can; Rabiee, Hamid R.; Zhu, Jianke; Gao, Jin; Xiao, Jingjing; Zhang, Junge; Xing, Junliang; Huang, Kaiqi; Lebeda, Karel; Cao, Lijun; Maresca, Mario Edoardo; Lim, Mei Kuan; ELHelw, Mohamed; Felsberg, Michael; Remagnino, Paolo; Bowden, Richard; Goecke, Roland; Stolkin, Rustam; Lim, Samantha Yue Ying; Maher, Sara; Poullot, Sebastien; Wong, Sebastien; Satoh, Shin'ichi; Chen, Weihua; Hu, Weiming; Zhang, Xiaoqin; Li, Yang; Niu, Zhiheng.

Proceedings - 2013 IEEE International Conference on Computer Vision Workshops, ICCVW 2013. Institute of Electrical and Electronics Engineers Inc., 2013. p. 98-111 6755885.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Touch gestures in communicating emotional intention via vibrotactile stimulation.** / Rantala, Jussi; Salminen, Katri; Raisamo, Roope; Surakka, Veikko.

In: International Journal of Human-Computer Studies, Vol. 71, No. 6, 2013, p. 679-690.

Research output: Contribution to journal › Article › Scientific › peer-review

**High-performance and low-energy buffer mapping method for multiprocessor DSP systems.** / Lee, Dongwon; Wolf, Marilyn; Bhattacharyya, Shuvra S.

In: ACM Transactions on Embedded Computing Systems, Vol. 12, No. 3, 82, 03.2013.

Research output: Contribution to journal › Article › Scientific › peer-review

**Indirect measurement of the vascular endothelial glycocalyx layer thickness in human submucosal capillaries with a plugin for ImageJ.** / Liuhanen, Sasu; Sallisalmi, Marko; Pettilä, Ville; Oksala, Niku; Tenhunen, Jyrki.

In: Computer Methods and Programs in Biomedicine, Vol. 110, No. 1, 04.2013, p. 38-47.

Research output: Contribution to journal › Article › Scientific › peer-review

**An evaluation of the virtual curvature with the StickGrip haptic device : A case study.** / Evreinova, Tatiana V.; Evreinov, Grigori; Raisamo, Roope.

In: Universal Access in the Information Society, Vol. 12, No. 2, 06.2013, p. 161-173.

Research output: Contribution to journal › Article › Scientific › peer-review

**Multi-view action recognition based on action volumes, fuzzy distances and cluster discriminant analysis.** / Iosifidis, Alexandros; Tefas, Anastasios; Pitas, Ioannis.

In: Signal Processing, Vol. 93, No. 6, 06.2013, p. 1445-1457.

Research output: Contribution to journal › Article › Scientific › peer-review

**Configurable, resource-optimized FFT architecture for OFDM communication.** / Cho, Inkeun; Shen, Chung Ching; Tachwali, Yahia; Hsu, Chia Jui; Bhattacharyya, Shuvra S.

2013 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2013 - Proceedings. 2013. p. 2746-2750 6638156.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Programmable lowpower implementation of the HEVC Adaptive Loop Filter.** / Hautala, Ilkka; Boutellier, Jani; Hannuksela, Jari.

2013 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2013 - Proceedings. 2013. p. 2664-2668 6638139.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Automated design of networks of transport-triggered architecture processors using dynamic dataflow programs.** / Yviquel, Hervé; Boutellier, Jani; Raulet, Mickaël; Casseau, Emmanuel.

In: Signal Processing: Image Communication, Vol. 28, No. 10, 11.2013, p. 1295-1302.

Research output: Contribution to journal › Article › Scientific › peer-review

**Controlled experiments comparing fault-tree-based safety analysis techniques.** / Mouaffo, Adrien; Taibi, Davide; Jamboti, Kavyashree.

18th International Conference on Evaluation and Assessment in Software Engineering, EASE 2014. Association for Computing Machinery (ACM), 2014. a46.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Data-driven stream mining systems for computer vision.** / Bhattacharyya, Shuvra S.; Van Der Schaar, Mihaela; Atan, Onur; Tekin, Cem; Sudusinghe, Kishan.

Advances in Computer Vision and Pattern Recognition. Vol. 68 SPRINGER-VERLAG LONDON LTD, 2014. p. 249-264 (Advances in Computer Vision and Pattern Recognition; Vol. 68).

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

**Gaze gestures and haptic feedback in mobile devices.** / Kangas, Jari; Akkil, Deepak; Rantala, Jussi; Isokoski, Poika; Majaranta, Päivi; Raisamo, Roope.

CHI 2014: One of a CHIInd - Conference Proceedings, 32nd Annual ACM Conference on Human Factors in Computing Systems. Association for Computing Machinery, 2014. p. 435-438.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review



**Glasses with haptic feedback of gaze gestures.** / Rantala, Jussi; Isokoski, Poika; Kangas, Jari; Raisamo, Roope; Akkil, Deepak.

CHI EA 2014: One of a ChiNd - Extended Abstracts, 32nd Annual ACM Conference on Human Factors in Computing Systems. Association for Computing Machinery, 2014. p. 1597-1602.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Head movement and facial expressions as game input.** / Ilves, Mirja; Gizatdinova, Yulia; Surakka, Veikko; Vankka, Esko.

In: Entertainment Computing, Vol. 5, No. 3, 2014, p. 147-156.

Research output: Contribution to journal > Article > Scientific > peer-review

**IntentRadar : Search user interface that anticipates user's search intents.** / Ruotsalo, Tuukka; Peltonen, Jaakko; Eugster, Manuel J A; Glowacka, Dorota; Reijonen, Aki; Jacucci, Giulio; Myllymäki, Petri; Kaski, Samuel.

CHI EA 2014: One of a ChiNd - Extended Abstracts, 32nd Annual ACM Conference on Human Factors in Computing Systems. Association for Computing Machinery, 2014. p. 455-458.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Layers of user expectations of future technologies : An early framework.** / Olsson, Thomas.

CHI EA 2014: One of a ChiNd - Extended Abstracts, 32nd Annual ACM Conference on Human Factors in Computing Systems. Association for Computing Machinery, 2014. p. 1957-1962.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Low-Power Reconfigurable Miniature Sensor Nodes for Condition Monitoring.** / Nyländén, Teemu; Boutellier, Jani; Nikunen, Karri; Hannuksela, Jari; Silvén, Olli.

In: International Journal of Parallel Programming, Vol. 43, No. 1, 2014, p. 3-23.

Research output: Contribution to journal > Article > Scientific > peer-review

**Minimum Variance Extreme Learning Machine for human action recognition.** / Iosifidis, Alexandros; Tefas, Anastasios; Pitas, Ioannis.

ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings. The Institute of Electrical and Electronics Engineers, Inc., 2014. p. 5427-5431 6854640.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Models for mobile application maintenance based on update history.** / Li, Xiaozhou; Zhang, Zheyang; Nummenmaa, Jyrki. ENASE 2014 - Proceedings of the 9th International Conference on Evaluation of Novel Approaches to Software Engineering. SCITEPRESS, 2014. p. 212-217.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**On application of rational Discrete Short Time Fourier Transform in epileptic seizure classification.** / Kovács, Peter; Samiee, Kaveh; Gabbouj, Moncef.

2014 IEEE International Conference on Acoustics, Speech and Signal processing (ICASSP), May 4-9 2014, Florence, Italy. Piscataway : IEEE, 2014. p. 5839-5843 6854723 (IEEE International Conference on Acoustics, Speech and Signal Processing).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Opportunities and Challenges of Mobile Applications as "Tickets-to-Talk": A Scenario-Based User Study.** /

Jarusriboonchai, Pradthana; Olsson, Thomas; Ojala, Jarno; Väänänen-Vainio-Mattila, Kaisa.

Proceedings of the 13th International Conference on Mobile and Ubiquitous Multimedia, MUM2014, November 25-28, 2014, Melbourne, Australia. New York, NY : ACM, 2014. p. 89-97 (International conference on mobile and ubiquitous multimedia).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Optimal neighborhood preserving visualization by Maximum satisfiability.** / Bunte, Kerstin; Jarvisalo, Matti; Berg, Jeremias; Myllymäki, Petri; Peltonen, Jaakko; Kaski, Samuel.

Proceedings of the National Conference on Artificial Intelligence. Vol. 3 AI Access Foundation, 2014. p. 1694-1700.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Optimization equivalence of divergences improves neighbor embedding.** / Yang, Zhirong; Peltonen, Jaakko; Kaski, Samuel.  
31st International Conference on Machine Learning, ICML 2014. Vol. 2 International Machine Learning Society (IMLS), 2014. p. 1808-1839.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Software architectures for implementing achievement badges - Practical experiences.** / Haaranen, Lassi; Hakulinen, Lasse; Ihanntola, Petri; Korhonen, Ari.  
Proceedings - 2014 International Conference on Teaching and Learning in Computing and Engineering, LATICE 2014. IEEE COMPUTER SOCIETY PRESS, 2014. p. 41-46 6821826.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Special Issue on Embedded Computer Systems: Architectures, Modeling and Simulation.** / McAllister, John; Guevorkian, David; Jeschke, Hartwig; Sima, Mihai.  
In: International Journal of Parallel Programming, Vol. 43, No. 1, 2014.  
Research output: Contribution to journal › Special issue › Scientific › peer-review

**The usability of text entry systems now and in the future.** / Clawson, James; Isokoski, Poika; Brewster, Stephen; Oulasvirta, Antti; Dunlop, Mark; Vertanen, Keith; Kristensson, Per Ola; Waller, Annalu.  
CHI EA 2014: One of a ChiNd - Extended Abstracts, 32nd Annual ACM Conference on Human Factors in Computing Systems. Association for Computing Machinery, 2014. p. 1139-1142.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Domain based storage protection with secure access control for the cloud.** / Paladi, Nicolae; Michalás, Antonis; Gehrman, Christian.  
SCC 2014 - Proceedings of the 2nd International Workshop on Security in Cloud Computing. Association for Computing Machinery, 2014. p. 35-42.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**The lord of the sense : A privacy preserving reputation system for participatory sensing applications.** / Michalás, Antonis; Komninos, Nikos.  
2014 IEEE Symposium on Computers and Communications, ISCC 2014 - Proceedings. Institute of Electrical and Electronics Engineers Inc., 2014. 6912480.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Symbol diversification of linux binaries.** / Lauren, Samuel; Maki, Petteri; Rauti, Sampsa; Hosseinzadeh, Shohreh; Hyrynsalmi, Sami; Leppanen, Ville.  
2014 World Congress on Internet Security, WorldCIS 2014. Institute of Electrical and Electronics Engineers Inc., 2014. p. 74-79.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Developing novel multimodal interaction techniques for touchscreen in-vehicle infotainment systems.** / Farooq, Ahmed; Evreinov, Grigori; Raisamo, Roope; Mäkinen, Erno; Nukarinen, Tomi; Majeed, Atif Abdul.  
ICOSST 2014 - 2014 International Conference on Open Source Systems and Technologies, Proceedings. Institute of Electrical and Electronics Engineers Inc., 2014. p. 32-42 7029317.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Haptic user interface enhancement system for touchscreen based interaction : A novel system for multimodal interaction with touchscreen interfaces.** / Farooq, Ahmed; Evreinov, Grigori; Raisamo, Roope; Majeed, Atif Abdul.  
ICOSST 2014 - 2014 International Conference on Open Source Systems and Technologies, Proceedings. Institute of Electrical and Electronics Engineers Inc., 2014. p. 25-31 7029316.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**A computational approach to construct a multivariate complete graph invariant.** / Dehmer, Matthias; Emmert-Streib, Frank; Grabner, Martin.  
In: Information Sciences, Vol. 260, 01.03.2014, p. 200-208.  
Research output: Contribution to journal › Article › Scientific › peer-review

**System integration for real-time mobile manipulation.** / Oftadeh, Reza; Aref, Mohammad M.; Ghabcheloo, Reza; Mattila, Jouni.

In: international Journal of Advanced Robotic Systems, Vol. 11, No. 1, 51, 28.03.2014.

Research output: Contribution to journal › Article › Scientific › peer-review

**Optimizing spatial and temporal reuse in wireless networks by decentralized partially observable markov decision processes.** / Pajarinen, Joni; Hottinen, Ari; Peltonen, Jaakko.

In: IEEE Transactions on Mobile Computing, Vol. 13, No. 4, 6482133, 04.2014, p. 866-879.

Research output: Contribution to journal › Article › Scientific › peer-review

**Prediction models and techniques for Open Source Software projects : A systematic literature review.** / Syeed, M. M Mahbubul; Hammouda, Imed; Systä, Tarja.

In: International Journal of Open Source Software and Processes, Vol. 5, No. 2, 01.04.2014, p. 1-39.

Research output: Contribution to journal › Article › Scientific › peer-review

**Patterns for controlling chaos in a startup.** / Eloranta, Veli-Pekka.

VikingPLoP 2014 Proceedings of the 8th Nordic Conference on Pattern Languages of Programs. Vol. 2014-April Association for Computing Machinery, 2014. p. 1-8 (ACM International Conference Proceeding Series).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Two patterns for minimizing human resources in a startup.** / Leppänen, Marko.

VikingPLoP 2014 Proceedings of the 8th Nordic Conference on Pattern Languages of Programs (VikingPLoP) . ACM, 2014. 4.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Estimating software development effort based on phases.** / Lenarduzzi, Valentina; Morasca, Sandro; Taibi, Davide.

Proceedings - 40th Euromicro Conference Series on Software Engineering and Advanced Applications, SEAA 2014. Institute of Electrical and Electronics Engineers Inc., 2014. p. 305-308.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Process configuration framework tool.** / Diebold, Philipp; Dieudonne, Laurent; Taibi, Davide.

Proceedings - 40th Euromicro Conference Series on Software Engineering and Advanced Applications, SEAA 2014. Institute of Electrical and Electronics Engineers Inc., 2014. p. 389-390.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Effects of directional haptic and non-speech audio cues in a cognitively demanding navigation task.** / Nukarinen, Tomi; Raisamo, Roope; Farooq, Ahmed; Evreinov, Grigori; Surakka, Veikko.

Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational. Association for Computing Machinery, Inc, 2014. p. 61-64.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Effects of haptic feedback on gaze based auto scrolling.** / Käki, Karoliina; Špakov, Oleg; Majaranta, Päivi; Kangas, Jari.

Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational. Association for Computing Machinery, Inc, 2014. p. 947-950.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Gaze-contingent scrolling and reading patterns.** / Rähkä, Kari Jouko; Sharmin, Selina.

Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational. Association for Computing Machinery, Inc, 2014. p. 65-68.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Human-technology choreographies : Re-thinking body, movement and space in interaction design.** / Pirhonen, Antti; Parviainen, Jaana; Tuuri, Kai; Turunen, Markku; Heimonen, Tomi.

Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational. Association for Computing Machinery, Inc, 2014. p. 841-844.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Seniors and text messaging on mobile touchscreen phones.** / Övermark, Reetta; Isokoski, Poika; Ovaska, Salla.  
Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational.  
Association for Computing Machinery, Inc, 2014. p. 967-970.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**The fuzzy front end of experience design.** / Kaasinen, Eija; Väättäjä, Heli; Karvonen, Hannu; Lu, Yichen.  
Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational.  
New York, NY : ACM, 2014. p. 797-800 (Nordic conference on human-computer interaction).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Using gaze gestures with haptic feedback on glasses.** / Kangas, Jari; Akkil, Deepak; Rantala, Jussi; Isokoski, Poika; Majaranta, Päivi; Raisamo, Roope.  
Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational.  
Association for Computing Machinery, Inc, 2014. p. 1047-1050.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Discriminant Bag of Words based representation for human action recognition.** / Iosifidis, Alexandros; Tefas, Anastastios; Pitas, Ioannis.

In: Pattern Recognition Letters, Vol. 49, 01.11.2014, p. 185-192.

Research output: Contribution to journal › Article › Scientific › peer-review

**Kernel reference discriminant analysis.** / Iosifidis, Alexandros; Tefas, Anastastios; Pitas, Ioannis.

In: Pattern Recognition Letters, Vol. 49, 01.11.2014, p. 85-91.

Research output: Contribution to journal › Article › Scientific › peer-review

**Body-touching : An embodied interaction technique for health information systems in developing regions.** / Sharma, Sumita; Srivastava, Saurabh; Sorathia, Keyur; Hakulinen, Jaakko; Heimonen, Tomi; Turunen, Markku; Rajput, Nitendra.  
MINDTREK 2014 - Proceedings of the 18th International Academic MindTrek Conference: "Media Business, Management, Content and Services". Association for Computing Machinery, Inc, 2014. p. 49-56.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**DYNAMO sound engine - Exploring the aesthetics of dynamic sound interactions.** / Luhtala, Matti; Heimonen, Tomi; Mäkelä, Ville; Keskinen, Tuuli; Turunen, Markku; Saarinen, Santeri.

MINDTREK 2014 - Proceedings of the 18th International Academic MindTrek Conference: "Media Business, Management, Content and Services". Association for Computing Machinery, Inc, 2014. p. 159-166.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Email intensity, productivity and control in the knowledge worker's performance on the desktop.** / Franssila, Heljä; Okkonen, Jussi; Savolainen, Reijo.

MINDTREK 2014 - Proceedings of the 18th International Academic MindTrek Conference: "Media Business, Management, Content and Services". Association for Computing Machinery, Inc, 2014. p. 19-22.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Games and energy : Profiling power usage during play.** / Salmela, Jussi Matti; Thanisch, Peter; Sotamaa, Olli; Niemi, Tapio.

MINDTREK 2014 - Proceedings of the 18th International Academic MindTrek Conference: "Media Business, Management, Content and Services". Association for Computing Machinery, Inc, 2014. p. 192-199.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**MurMur Moderators, the talking playful seats.** / Nummenmaa, Timo; Kultima, Annakaisa; Tyni, Heikki; Alha, Kati.

MINDTREK 2014 - Proceedings of the 18th International Academic MindTrek Conference: "Media Business, Management, Content and Services". Association for Computing Machinery, Inc, 2014. p. 231-237.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Goofy Mus, grumpy Mur and dirty Muf : Talking playful seats with personalities.** / Kultima, Annakaisa; Nummenmaa, Timo; Tyni, Heikki; Alha, Kati; Mayra, Frans.  
ACE 2014 - 11th Advances in Computer Entertainment Technology Conference, Workshops Proceedings. Vol. 11-14-  
November-2014 Association for Computing Machinery, 2014. a9.  
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Information wall : Evaluation of a gesture-controlled public display.** / Mäkelä, Ville; Heimonen, Tomi; Luhtala, Matti; Turunen, Markku.  
ACE 2014 - 11th Advances in Computer Entertainment Technology Conference, Proceedings. Vol. 2014-November  
Association for Computing Machinery, 2014. p. 228-231.  
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Schoolchildren's user experiences on a physical exercise game utilizing lighting and audio.** / Keskinen, Tuuli; Hakulinen, Jaakko; Turunen, Markku; Heimonen, Tomi; Sand, Antti; Paavilainen, Janne; Parviainen, Jaana; Yrjänäinen, Sari; Mäyrä, Frans; Okkonen, Jussi; Raisamo, Roope.  
In: Entertainment Computing, Vol. 5, No. 4, 01.12.2014, p. 475-484.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Analytical model in discrete time for cross-layer video communication over LTE.** / Efimushkina, T.; Gabbouj, M.; Samuylov, K.  
In: Automatic Control and Computer Sciences, Vol. 48, No. 6, 2015, p. 345-357.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Cultural influence on online community use : A cross-cultural study on online exercise diary users of three nationalities.** / Malinen, Sanna; Nurkka, Piia.  
In: International Journal of Web Based Communities, Vol. 11, No. 2, 2015, p. 153-169.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Designing an Unobtrusive Analytics Framework for Monitoring Java Applications.** / Suonsyrjä, Sampo ; Mikkonen, Tommi .  
Software Measurement: 25th International Workshop on Software Measurement and 10th International Conference on  
Software Process and Product Measurement, IWSM-Mensura 2015, Kraków, Poland, October 5–7, 2015, Proceedings.  
ed. / Andrzej Kobylński ; Beata Czarnacka-Chrobot; Jarosław Świerczek. Vol. 230 Springer International Publishing, 2015.  
p. 160-175 (Lecture Notes in Business Information Processing).  
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Distant speech separation using predicted time-frequency masks from spatial features.** / Pertilä, Pasi; Nikunen, Joonas.  
In: Speech Communication, Vol. 68, 2015, p. 97-106.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Dynamic text presentation in print interpreting - An eye movement study of reading behaviour.** / Sharmin, Selina; Špakov, Oleg; Rähä, Kari Jouko.  
In: International Journal of Human-Computer Studies, Vol. 78, 2015, p. 17-30.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Majorization-minimization for manifold embedding.** / Yang, Zhirong; Peltonen, Jaakko; Kaski, Samuel.  
In: Journal of Machine Learning Research, Vol. 38, 2015, p. 1088-1097.  
Research output: Contribution to journal > Article > Scientific > peer-review

**On constructibility and unconstructibility of LTS operators from other LTS operators.** / Valmari, Antti.  
In: Acta Informatica, Vol. 52, No. 2-3, 2015, p. 207-234.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Quality measures for improving technology trees.** / Heinimäki, Teemu J.; Elomaa, Tapio.  
In: International Journal of Computer Games Technology, Vol. 2015, 975371, 2015.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Subjective evaluation of Super Multi-View compressed contents on high-end light-field 3D displays.** / Dricot, Antoine; Jung, Joel; Cagnazzo, Marco; Pesquet, Béatrice; Dufaux, Frédéric; Kovács, Péter; Adhikarla, Vamsi Kiran.  
In: Signal Processing: Image Communication, Vol. 39, No. Part B, 2015, p. 369–385.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Image database TID2013 : Peculiarities, results and perspectives.** / Ponomarenko, Nikolay; Jin, Lina; Ieremeiev, Oleg; Lukin, Vladimir; Egiazarian, Karen; Astola, Jaakko; Vozel, Benoit; Chehdi, Kacem; Carli, Marco; Battisti, Federica; Jay Kuo, C. C.  
In: Signal Processing: Image Communication, Vol. 30, 01.01.2015, p. 57-77.  
Research output: Contribution to journal › Article › Scientific › peer-review

**PaaSword : A holistic data privacy and security by design framework for cloud services.** / Verginadis, Yiannis; Michalas, Antonis; Gouvas, Panagiotis; Schiefer, Gunther; Hübsch, Gerald; Paraskakis, Iraklis.  
CLOSER 2015 - 5th International Conference on Cloud Computing and Services Science, Proceedings. SCITEPRESS, 2015. p. 206-213.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Social behavior in bacterial nanonetworks : Challenges and opportunities.** / Hasan, Monowar; Hossain, Ekram; Balasubramaniam, Sasitharan; Koucheryavy, Yevgeni.  
In: IEEE Network, Vol. 29, No. 1, 7018200, 01.01.2015, p. 26-34.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Classification of iPSC colony images using hierarchical strategies with support vector machines.** / Joutsijoki, Henry; Rasku, Jyrki; Haponen, Markus; Baldin, Ivan; Gizatdinova, Yulia; Paci, Michelangelo; Saarikoski, Jyri; Varpa, Kirsi; Siirtola, Harri; Ávalos-Salguero, Jorge; Iltanen, Kati; Laurikkala, Jorma; Penttinen, Kirsi; Hyttinen, Jari; Aalto-Setälä, Katriina; Juhola, Martti.  
IEEE SSCI 2014 - 2014 IEEE Symposium Series on Computational Intelligence - CIDM 2014: 2014 IEEE Symposium on Computational Intelligence and Data Mining, Proceedings. The Institute of Electrical and Electronics Engineers, Inc., 2015. p. 86-92 7008152.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Fault tolerant control architecture design for mobile manipulation in scientific facilities.** / M. Aref, Mohammad; Oftadeh, Reza; Ghabcheloo, Reza; Mattila, Jouni.  
In: international Journal of Advanced Robotic Systems, Vol. 12, No. 4, 29.01.2015.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Adaptive spatial resolution selection for stereoscopic video compression with MV-HEVC : A frequency based approach.** / Aflaki, Payman; Hannuksela, Miska M.; Gabbouj, Moncef.  
2014 IEEE International Symposium on Multimedia, ISM 2014, 10-12 Dec. 2014, Taichung. The Institute of Electrical and Electronics Engineers, Inc., 2015. p. 267-270.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Salient event detection in basketball mobile videos.** / Cricri, Francesco; Mate, Sujeet; Curcio, Igor D D; Gabbouj, Moncef.  
Proceedings - 2014 IEEE International Symposium on Multimedia, ISM 2014. The Institute of Electrical and Electronics Engineers, Inc., 2015. p. 63-70 7032995.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**LTE indoor MIMO performances field measurements.** / Nguyen-Thanh, Duc; Le-Tien, Thuong; Bui-Thu, Cao; Le-Thanh, Toi.  
International Conference on Advanced Technologies for Communications. IEEE, 2015. p. 84-89.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**On the kernel Extreme Learning Machine classifier.** / Iosifidis, Alexandros; Tefas, Anastasios; Pitas, Ioannis.  
In: Pattern Recognition Letters, Vol. 54, 01.03.2015, p. 11-17.  
Research output: Contribution to journal › Article › Scientific › peer-review

**The highways and country roads to continuous deployment.** / Leppänen, Marko; Mäkinen, Simo; Pagels, Max; Eloranta, Veli-Pekka; Itkonen, Juha; Mäntylä, Mika V.; Männistö, Tomi.  
In: IEEE Software, Vol. 32, No. 2, 01.03.2015, p. 64-72.  
Research output: Contribution to journal > Article > Scientific > peer-review

**The MOBISERV-AIIA eating and drinking multi-view database for vision-based assisted living.** / Iosifidis, A.; Marami, E.; Tefas, A.; Pitas, I.; Lyroutia, K.  
In: Journal of Information Hiding and Multimedia Signal Processing, Vol. 6, No. 2, 01.03.2015, p. 254-273.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Intentstreams : Smart parallel search streams for branching exploratory search.** / Andolina, Salvatore; Klouche, Khalil; Peltonen, Jaakko; Hoque, Mohammad; Ruotsalo, Tuukka; Cabral, Diogo; Klami, Arto; Glowacka, Dorota; Floréen, Patrik; Jacucci, Giulio.  
IUI 2015 - Proceedings of the 20th ACM International Conference on Intelligent User Interfaces. Vol. 2015-January Association for Computing Machinery, 2015. p. 300-305.  
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Glance awareness and gaze interaction in smartwatches.** / Akkil, Deepak; Kangas, Jari; Rantala, Jussi; Isokoski, Poika; Špakov, Oleg; Raisamo, Roope.  
CHI 2015 - Extended Abstracts Publication of the 33rd Annual CHI Conference on Human Factors in Computing Systems: Crossings. Vol. 18 Association for Computing Machinery, 2015. p. 1271-1276.  
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Information retrieval approach to meta-visualization.** / Peltonen, Jaakko; Lin, Ziyuan.  
In: Machine Learning, Vol. 99, No. 2, 01.05.2015, p. 189-229.  
Research output: Contribution to journal > Article > Scientific > peer-review

**A comparison of security assurance support of agile software development methods.** / Rindell, Kalle; Hyrynsalmi, Sami; Leppänen, Ville.  
Computer Systems and Technologies - 16th International Conference, CompSysTech 2015: Proceedings. Vol. 1008 Association for Computing Machinery, 2015. p. 61-68.  
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**A time-optimal bounded velocity path-following controller for generic Wheeled Mobile Robots.** / Oftadeh, Reza; Ghabcheloo, Reza; Mattila, Jouni.  
2015 IEEE International Conference on Robotics and Automation (ICRA), 26-30 May 2015, Seattle, WA. Institute of Electrical and Electronics Engineers IEEE, 2015. p. 676-683.  
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Collaborative cloud-based management of home networks.** / Silverajan, Bilhanan; Luoma, Juha-Pekka; Vajaranta, Markku; Itäpuro, Riku.  
Proceedings of the 2015 IFIP/IEEE International Symposium on Integrated Network Management, IM 2015. IEEE, 2015. p. 786-789.  
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Electroplated nickel microspring and low-friction precision linear slider : A novel micro-force sensing tool.** / Saketi, Pooya; Wangyang, Peihua; Li, Haihua; Wang, Qingkang; Kallio, Pasi.  
2015 IEEE International Conference on Robotics and Automation (ICRA), 26-30 May 2015, Seattle, WA . 2015. p. 2679-2684.  
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Novel pairwise coupled kinematic solution for algebraic angular acceleration estimation of serial link manipulators.** / Vihonen, Juho; Honkakorpi, Janne; Mattila, Jouni; Visa, Ari.  
2015 IEEE International Conference on Robotics and Automation (ICRA). Institute of Electrical and Electronics Engineers IEEE, 2015. p. 809-814.  
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Optimal sensing via multi-armed bandit relaxations in mixed observability domains.** / Lauri, Mikko; Ritala, Risto.  
2015 IEEE International Conference on Robotics and Automation (ICRA), 26-30 May 2015, Seattle, WA. Vol. 2015-June 2015. p. 4807-4812.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Railway fastener inspection by real-time machine vision.** / Aytekin, Caglar; Rezaeitabar, Yousef; Dogru, Sedat; Ulusoy, Ilkay.

In: IEEE Transactions on Systems, Man, and Cybernetics: Systems, Vol. 45, No. 7, 01.07.2015, p. 1101-1107.

Research output: Contribution to journal › Article › Scientific › peer-review

**Four patterns for internal startups.** / Leppänen, Marko; Hokkanen, Laura.

Proceedings of the 20th European Conference on Pattern Languages of Programs, EuroPLoP 2015. ACM, 2015. a5.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Three patterns for user involvement in startups.** / Hokkanen, Laura; Leppänen, Marko.

Proceedings of the 20th European Conference on Pattern Languages of Programs, EuroPLoP 2015. ACM, 2015. a51.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Mashing Up Software Issue Management, Development, and Usage Data.** / Mattila, Anna-Liisa; Lehtonen, Timo; Terho, Henri; Mikkonen, Tommi; Systä, Kari.

2015 IEEE/ACM 2nd International Workshop on Rapid Continuous Software Engineering (RCoSE). The Institute of Electrical and Electronics Engineers, Inc., 2015. p. 26-29.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Exploring the Stability of Software with Time-Series Cross-Sectional Data.** / Ruohonen, Jukka; Hyrynsalmi, Sami; Leppänen, Ville.

Proceedings - 2nd International Workshop on Software Architecture and Metrics, SAM 2015. Institute of Electrical and Electronics Engineers Inc., 2015. p. 41-47.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Automatic image-based detection and inspection of paper fibres for grasping.** / Hirvonen, Juha; Kallio, Pasi.

In: IET Computer Vision, Vol. 9, No. 4, 01.08.2015, p. 588-594.

Research output: Contribution to journal › Article › Scientific › peer-review

**Collaborative filtering based on group coordinates for smoothing and directional sharpening.** / Azzari, Lucio; Foi, Alessandro.

ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings. IEEE, 2015. p. 1573-1577.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Enhancing class discrimination in Kernel Discriminant Analysis.** / Iosifidis, Alexandros; Tefas, Anastasios; Pitas, Ioannis.

ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings. The Institute of Electrical and Electronics Engineers, Inc., 2015. p. 1926-1930 7178306.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Exemplar-based speech enhancement for deep neural network based automatic speech recognition.** / Baby, Deepak; Gemmeke, Jort F.; Virtanen, Tuomas; Van Hamme, Hugo.

ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings. The Institute of Electrical and Electronics Engineers, Inc., 2015. p. 4485-4489.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Exploiting subclass information in one-class support vector machine for video summarization.** / Mygdalis, Vasileios; Iosifidis, Alexandros; Tefas, Anastasios; Pitas, Ioannis.

ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings. Vol. 2015-August The Institute of Electrical and Electronics Engineers, Inc., 2015. p. 2259-2263.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review



**Low-complexity robust DOA estimation.** / Dumitrescu, Bogdan; Rusu, Cristian; Tabus, Ioan; Astola, Jaakko.  
ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings. The Institute of Electrical and Electronics Engineers, Inc., 2015. p. 2794-2798.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Low-Latency Sound-Source-Separation using Non-Negative Matrix Factorisation with Coupled Analysis and Synthesis Dictionaries.** / Barker, Thomas; Virtanen, Tuomas; Pontoppidan, Niels Henrik.  
2015 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP). IEEE, 2015. p. 241-245.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Similarity induced group sparsity for non-negative matrix factorisation.** / Hurmalainen, Antti; Saeidi, Rahim; Virtanen, Tuomas.  
ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings. The Institute of Electrical and Electronics Engineers, Inc., 2015. p. 4425-4429.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Scinet : Interactive intent modeling for information discovery.** / Ruotsalo, Tuukka; Peltonen, Jaakko; Eugster, Manuel J A; Glowacka, Dorota; Reijonen, Aki; Jacucci, Giulio; Myllymäki, Petri; Kaski, Samuel.  
SIGIR 2015 - Proceedings of the 38th International ACM SIGIR Conference on Research and Development in Information Retrieval. Association for Computing Machinery, Inc, 2015. p. 1043-1044.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Mobiscool : 1<sup>st</sup> workshop on mobile, social and culturally oriented learning.** / Nanavati, A. A.; Rajput, N.; Turunen, M.; Knoche, H.; Rehm, M.  
MobileHCI 2015 - Proceedings of the 17th International Conference on Human-Computer Interaction with Mobile Devices and Services Adjunct. Association for Computing Machinery, Inc, 2015. p. 1187-1190.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Software evolution and time series volatility : An empirical exploration.** / Ruohonen, Jukka; Hyrynsalmi, Sami; Leppänen, Ville.  
14th International Workshop on Principles of Software Evolution, IWPSE 2015 - Proceedings. Vol. 30-Aug-2015 Institute of Electrical and Electronics Engineers Inc., 2015. p. 56-65.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Augmenting Technology Trees: Automation and Tool Support.** / Heinimäki, Teemu J.; Elomaa, Tapio.  
Proceedings of the Seventh International Conference on Virtual Worlds and Games for Serious Applications (VS-Games 2015). IEEE, 2015. p. 68-75.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Haptic feedback of gaze gestures with glasses : Localization accuracy and effectiveness.** / Rantala, Jussi; Kangas, Jari; Isokoski, Poika; Akkil, Deepak; Špakov, Oleg; Raisamo, Roope.  
UbiComp and ISWC 2015 - Proceedings of the 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing and the Proceedings of the 2015 ACM International Symposium on Wearable Computers. Association for Computing Machinery, Inc, 2015. p. 855-862.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Antroposeeni - A mixed reality game.** / Luhtala, Matti; Karvonen, Tuomo; Pylväs, Jyrki; Ala-Kokko, Aki; Magica, Reina; Takeda, Yuko; Turunen, Markku.  
ACADEMICMINDTREK 2015 - Proceedings of the 19th International Academic Mindtrek Conference. Association for Computing Machinery, Inc, 2015. p. 211-213.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**OASIS deck of cards - House of colleagues : A playful.** / Nummenmaa, Timo; Kultima, Annakaisa; Kankainen, Ville; Savolainen, Sampo; Syvänen, Antti; Alha, Kati; Mäyrä, Frans.  
ACADEMICMINDTREK 2015 - Proceedings of the 19th International Academic Mindtrek Conference. Association for Computing Machinery, Inc, 2015. p. 2-9.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Model selection for linear classifiers using Bayesian error estimation.** / Huttunen, Heikki; Tohka, Jussi.

In: Pattern Recognition, Vol. 48, No. 11, 11.2015, p. 3739-3748.

Research output: Contribution to journal › Article › Scientific › peer-review

**Sparse extreme learning machine classifier exploiting intrinsic graphs.** / Iosifidis, Alexandros; Tefas, Anastasios; Pitas, Ioannis.

In: Pattern Recognition Letters, Vol. 65, 01.11.2015, p. 192-196.

Research output: Contribution to journal › Article › Scientific › peer-review

**Executing dataflow actors as kahn processes.** / Tretter, Andreas; Boutellier, Jani; Guthrie, James; Schor, Lars; Thiele, Lothar.

2015 Proceedings of the International Conference on Embedded Software, EMSOFT 2015. Institute of Electrical and Electronics Engineers Inc., 2015. p. 105-114 7318265.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Collaborative navigation in virtual worlds : How gender and game experience influence user behavior.** / Kallioniemi, Pekka; Heimonen, Tomi; Turunen, Markku; Hakulinen, Jaakko; Keskinen, Tuuli; Pihkala-Posti, Laura; Okkonen, Jussi; Raisamo, Roope.

Proceedings - VRST 2015: 21st ACM Symposium on Virtual Reality Software and Technology. Vol. 13-15-November-2015 Association for Computing Machinery, 2015. p. 173-182.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Need to touch, wonder of discovery, and social capital : Experiences with interactive playful seats.** / Nummenmaa, Timo; Tyni, Heikki; Kultima, Annakaisa; Alha, Kati; Holopainen, Jussi.

ACE 2015 - 12th Advances in Computer Entertainment Technology Conference, Proceedings. Vol. 16-19-November-2015 Association for Computing Machinery, 2015. 10.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Who is moving - User or device? Experienced quality of mobile 3D video in vehicles.** / Jumisko-Pyykkö, Satu; Markopoulos, Panos; Hannuksela, Miska M.

ACE 2015 - 12th Advances in Computer Entertainment Technology Conference, Proceedings. ACM, 2015. 13.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Time series trends in software evolution.** / Ruohonen, Jukka; Hyrynsalmi, Sami; Leppänen, Ville.

In: Journal of Software: Evolution and Process, Vol. 27, No. 12, 01.12.2015, p. 990-1015.

Research output: Contribution to journal › Article › Scientific › peer-review

**A State Space Tool for Concurrent System Models Expressed In C++.** / Valmari, Antti.

SPLST 2015 Symposium on Programming Languages and Software Tools: Proceedings of the 14th Symposium on Programming Languages and Software Tools (SPLST'15) Tampere, Finland, Oct 9-10, 2015. ed. / Jyrki Nummenmaa; Outi Sievi-Korte; Erkki Mäkinen. Vol. 1525 CEUR-WS.org, 2015. p. 91-105 7 (CEUR Workshop Proceedings; Vol. 1525).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Generative part-based Gabor object detector.** / Riabchenko, Ekaterina; Kämäräinen, Joni-Kristian.

In: Pattern Recognition Letters, Vol. 68, No. P1, 15.12.2015, p. 1-8.

Research output: Contribution to journal › Article › Scientific › peer-review

**Network signatures based on gene pair expression ratios improve classification and the analysis of muscle-invasive urothelial cancer.** / De Matos Simoes, Ricardo; Mitsiades, Constantine; Williamson, Kate E.; Emmert-Streib, Frank.

2015 IEEE International Conference on Bioinformatics and Biomedicine (BIBM). IEEE, 2015. p. 1216-1223.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Analysis of a receiver-based reliable broadcast approach for vehicular networks.** / Gholibeigi, Mozhdeh; Heijenk, Geert; Moltchanov, Dmitri; Koucheryavy, Yevgeni.

In: Ad Hoc Networks, Vol. 37, 2016, p. 63-75.

Research output: Contribution to journal › Article › Scientific › peer-review

**Collecting usage data for software development : Selection framework for technological approaches.** / Suonsyrjä, Sampo; Systä, Kari; Mikkonen, Tommi; Terho, Henri.

Proceedings - SEKE 2016: 28th International Conference on Software Engineering and Knowledge Engineering. Knowledge Systems Institute Graduate School, 2016. p. 114-119.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Comparison of Feature Selection Techniques in Machine Learning for Anatomical Brain MRI in Dementia.** / Tohka, Jussi; Moradi, Elaheh; Huttunen, Heikki; Alzheimer's Disease Neuroimaging Initiative; Alzheimer's Disease Neuroimaging Initiative 2.

In: Neuroinformatics, Vol. 14, No. 3, 2016, p. 279-296.

Research output: Contribution to journal › Article › Scientific › peer-review

**Dominant Rotated Local Binary Patterns (DRLBP) for texture classification.** / Mehta, Rakesh; Egiazarian, Karen.

In: Pattern Recognition Letters, Vol. 71, 2016, p. 16-22.

Research output: Contribution to journal › Article › Scientific › peer-review

**Foveated Nonlocal Self-Similarity.** / Foi, Alessandro; Boracchi, Giacomo.

In: International Journal of Computer Vision, Vol. 120, No. 1, 2016, p. 78-110.

Research output: Contribution to journal › Article › Scientific › peer-review

**Graph Embedded Extreme Learning Machine.** / Iosifidis, Alexandros; Tefas, Anastasios; Pitas, Ioannis.

In: IEEE Transactions on Cybernetics, Vol. 46, No. 1, 2016, p. 311 - 324.

Research output: Contribution to journal › Article › Scientific › peer-review

**Gravity gradient routing for information delivery in fog Wireless Sensor Networks.** / Ivanov, Stepan; Balasubramaniam, Sasitharan; Botvich, Dmitri; Akan, Ozgur B.

In: Ad Hoc Networks, Vol. 46, 2016, p. 61-74.

Research output: Contribution to journal › Article › Scientific › peer-review

**HTML5-based mobile agents for Web-of-Things.** / Voutilainen, Jari Pekka; Mattila, Anna Liisa; Systä, Kari; Mikkonen, Tommi.

In: Informatica, Vol. 40, No. 1, 2016, p. 43-51.

Research output: Contribution to journal › Article › Scientific › peer-review

**Methodology to obtain the security controls in multi-cloud applications.** / Afolaranmi, Samuel Olaiya; Gonzalez Moctezuma, Luis E.; Rak, Massimiliano; Casola, Valentina; Rios, Erkuden; Martinez Lastra, Jose L.

CLOSER 2016 - Proceedings of the 6th International Conference on Cloud Computing and Services Science. Vol. 1 SCITEPRESS, 2016. p. 327-332.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**One-Class Classification based on Extreme Learning and Geometric Class Information.** / Iosifidis, Alexandros; Mygdalis, Vasileios; Tefas, Anastasios; Pitas, Ioannis.

In: Neural Processing Letters, 2016, p. 1-16.

Research output: Contribution to journal › Article › Scientific › peer-review

**On the arity gap of finite functions : Results and applications.** / Couceiro, Miguel; Lehtonen, Erkkö.

In: Journal of Multiple-Valued Logic and Soft Computing, Vol. 27, No. 2-3, 2016, p. 193-207.

Research output: Contribution to journal › Review Article › Scientific › peer-review

**Software Startups - A Research Agenda.** / Unterkalmsteiner, Michael; Abrahamsson, Pekka; Wang, Xiao Feng; Nguyen-Duc, Anh; Shah, Syed; Bajwa, Sohaib Shahid; Baltes, Guido H.; Conboy, Kieran; Cullina, Eoin; Dennehy, Denis; Edison, Henry; Fernandez-Sanchez, Carlos; Garbajosa, Juan; Gorschek, Tony; Klotins, Eriks; Hokkanen, Laura; Kon, Fabio; Lunesu, Ilaria; Marchesi, Michele; Morgan, Lorraine; Oivo, Markku; Selig, Christoph; Seppänen, Pertti; Sweetman, Roger; Tyrväinen, Pasi; Ungerer, Christina; Yagüe, Agustín.

In: e-Informatica Software Engineering Journal, Vol. 10, No. 1, 2016, p. 89-123.

Research output: Contribution to journal › Article › Scientific › peer-review

**Still image/video frame lossy compression providing a desired visual quality.** / Zemliachenko, Alexander; Lukin, Vladimir; Ponomarenko, Nikolay; Egiazarian, Karen; Astola, Jaakko.

In: Multidimensional Systems and Signal Processing, Vol. 27, No. 3, 2016, p. 697-718.

Research output: Contribution to journal › Article › Scientific › peer-review

**Towards component-aware function point measurement.** / Lavazza, Luigi; Lenarduzzi, Valentina; Taibi, Davide.

Proceedings - 26th International Workshop on Software Measurement, IWSM 2016 and the 11th International Conference on Software Process and Product Measurement, Mensura 2016. IEEE, 2016. p. 35-44.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**The influence of developer multi-homing on competition between software ecosystems.** / Hyrynsalmi, Sami; Suominen, Arho; Mäntymäki, Matti.

In: Journal of Systems and Software, Vol. 111, 01.01.2016, p. 119-127.

Research output: Contribution to journal › Article › Scientific › peer-review

**Lean manufacturing methods in simulation literature : Review and association analysis.** / Tokola, Henri; Niemi, Esko; Väistö, Ville.

2015 Winter Simulation Conference (WSC). 2016. p. 2239-2248.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Increasing collocated people's awareness of the mobile user's activities : A field trial of social displays.** / Jarusriboonchai, Pradthana; Malapaschas, Aris; Olsson, Thomas; Väänänen, Kaisa.

CSCW '16 - Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing . ACM, 2016. p. 1691-1702.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Social display...We can see what you are doing on your mobile device.** / Jarusriboonchai, Pradthana; Malapaschas, Aris; Olsson, Thomas; Väänänen, Kaisa.

CSCW '16 Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing. ACM, 2016. p. 53-56.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**An Assessment of Errors and Their Reduction in Terrestrial Laser Scanner Measurements in Marmorean Surfaces.** / Garcia-Fernandez, Jorge.

In: 3D Research, Vol. 7, No. 1, 2, 01.03.2016, p. 1-11.

Research output: Contribution to journal › Article › Scientific › peer-review

**Detection of bubbles as concentric circular arrangements.** / Strokina, Nataliya; Matas, Jiri; Eerola, Tuomas; Lensu, Lasse; Kälviäinen, Heikki.

In: Machine Vision and Applications, Vol. 27, No. 3, 04.2016, p. 387-396.

Research output: Contribution to journal › Article › Scientific › peer-review

**Texture classification using dense micro-block difference.** / Mehta, Rakesh; Egiazarian, Karen.

In: IEEE Transactions on Image Processing, Vol. 25, No. 4, 01.04.2016, p. 1604-1616.

Research output: Contribution to journal › Article › Scientific › peer-review

**Learnings from the Finnish game industry.** / Helenius, Marko; Kettunen, Petri; Frank, Lauri.

Proceedings of the 10th Travelling Conference on Pattern Languages of Programs, VikingPLoP 2016. ACM, 2016. a12.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Patterns for safety system bus architecture.** / Rauhamäki, Jari.

Proceedings of the 10th Travelling Conference on Pattern Languages of Programs, VikingPLoP 2016. ACM, 2016. a4.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Patterns for subsidiaries as innovation tools.** / Leppänen, Marko; Hokkanen, Laura.

Proceedings of the 10th Travelling Conference on Pattern Languages of Programs, VikingPLoP 2016. ACM, 2016. a7.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Exploring the role of ten universal values in using products and services.** / Partala, Timo; Kujala, Sari.

In: Interacting with Computers, Vol. 28, No. 3, 01.05.2016, p. 311-331.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Collaboration change in enterprise software development.** / Smolander, Kari; Rossi, Matti; Pekkola, Samuli.

Proceedings - 9th International Workshop on Cooperative and Human Aspects of Software Engineering, CHASE 2016. ACM, 2016. p. 68-74.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Coordinating proactive social devices in a mobile cloud : Lessons learned and a way forward.** / Mäkitalo, Niko; Aaltonen, Timo; Mikkonen, Tommi.

MOBILESoft '16 Proceedings of the International Conference on Mobile Software Engineering and Systems . ACM, 2016. p. 179-188.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Prototyping real-Time tracking systems on mobile devices.** / Lee, Kyunghun; Salem, Haifa Ben; Damarla, Thyagaraju; Stechele, Walter; Bhattacharyya, Shuvra S.

CF '16 Proceedings of the ACM International Conference on Computing Frontiers. ACM, 2016. p. 301-308.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Blind sub-Nyquist GNSS signal detection.** / Daniel, Ondrej; Raasakka, Jussi; Peltola, Pekka; Fröhle, Markus; Rivero-Rodriguez, Alejandro; Wymeersch, Henk; Nurmi, Jari.

2016 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) . IEEE, 2016. p. 6575-6579.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**On Renyi's entropy estimation with one-dimensional Gaussian kernels.** / Sarbu, Septimia.

2016 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) . IEEE, 2016. p. 4408-4412.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Supervised subspace learning based on deep randomized networks.** / Iosifidis, Alexandros; Gabbouj, Moncef.

2016 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) . The Institute of Electrical and Electronics Engineers, Inc., 2016. p. 2584-2588.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Dynamic software updating techniques in practice and Educator's guides : A review.** / Ilvonen, Ville; Ihantola, Petri; Mikkonen, Tommi.

2016 IEEE 29th International Conference on Software Engineering Education and Training (CSEET) . IEEE, 2016. p. 86-90.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**A design framework for mapping vectorized synchronous dataflow graphs onto CPU-GPU platforms.** / Lin, Shuoxin; Liu, Yanzhou; Plishker, William; Bhattacharyya, Shuvra S.

Proceedings of the 19th International Workshop on Software and Compilers for Embedded Systems, SCOPES 2016. ACM, 2016. p. 20-29.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Learning movement synchronization in multi-component robotic systems.** / Thabet, Mohammad; Montebelli, Alberto; Kyrki, Ville.

2016 IEEE International Conference on Robotics and Automation (ICRA) . IEEE, 2016. p. 249-256.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Optimizing gaze direction in a visual navigation task.** / Välimäki, Tuomas; Ritala, Risto.  
2016 IEEE International Conference on Robotics and Automation (ICRA) . IEEE, 2016. p. 1427-1432.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Fifty years of graph matching, network alignment and network comparison.** / Emmert-Streib, Frank; Dehmer, Matthias; Shi, Yongtang.  
In: Information Sciences, Vol. 346-347, 10.06.2016, p. 180-197.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Exploring the use of deprecated PHP releases in the wild internet : Still a LAMP issue?** / Ruohonen, Jukka; Hyrynsalmi, Sami; Leppänen, Ville.  
6th International Conference on Web Intelligence, Mining and Semantics, WIMS 2016. Association for Computing Machinery, 2016. 26.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Emotional Reactions to Point-Light Display Animations.** / Venesvirta, Hanna; Surakka, Veikko; Gizatdinova, Yulia; Lylykangas, Jani; Špakov, Oleg; Verho, Jarmo; Vetek, Akos; Lekkala, Jukka.  
In: Interacting with Computers, Vol. 28, No. 4, 16.06.2016, p. 521-531.  
Research output: Contribution to journal › Article › Scientific › peer-review

**An evaluation framework for cross-platform mobile app development tools : A case analysis of adobe PhoneGap framework.** / Ahti, Ville; Hyrynsalmi, Sami; Nevalainen, Olli.  
Computer Systems and Technologies 17th International Conference, CompSysTech 2016 - Proceedings. Vol. 1164 Association for Computing Machinery, 2016. p. 41-48.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**A survey on aims and environments of diversification and obfuscation in software security.** / Hosseinzadeh, Shohreh; Rauti, Sampsa; Laurén, Samuel; Mäkelä, Jari Matti; Holvitie, Johannes; Hyrynsalmi, Sami; Leppänen, Ville.  
Computer Systems and Technologies 17th International Conference, CompSysTech 2016 - Proceedings. Vol. 1164 Association for Computing Machinery, 2016. p. 113-120.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Compressive Sensing Image Restoration Using Adaptive Curvelet Thresholding and Nonlocal Sparse Regularization.** / Eslahi, Nasser; Aghagolzadeh, Ali.  
In: IEEE Transactions on Image Processing, Vol. 25, No. 7, 01.07.2016, p. 3126-3140.  
Research output: Contribution to journal › Article › Scientific › peer-review

**On the Architecture of Liquid Software: Technology Alternatives and Design Space.** / Gallidabino, Andrea; Pautasso, Cesare; Ilvonen, Ville; Mikkonen, Tommi; Systä, Kari; Voutilainen, Jari-Pekka; Taivalsaari, Antero.  
Proceedings - 2016 13th Working IEEE/IFIP Conference on Software Architecture, WICSA 2016. IEEE, 2016. p. 122-127.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**SoftWater : Software-defined networking for next-generation underwater communication systems.** / Akyildiz, Ian F.; Wang, Pu; Lin, Shih Chun.  
In: Ad Hoc Networks, Vol. 46, 08.2016.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Trading exploits online : A preliminary case study.** / Ruohonen, Jukka; Hyrynsalmi, Sami; Leppänen, Ville.  
IEEE RCIS 2016 - IEEE 10th International Conference on Research Challenges in Information Science. IEEE COMPUTER SOCIETY PRESS, 2016.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Nyström-based approximate kernel subspace learning.** / Iosifidis, Alexandros; Gabbouj, Moncef.  
In: Pattern Recognition, 09.2016, p. 190-197.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Using elicitation studies to generate collocated interaction methods.** / Jokela, Tero; Rezaei, Parisa Pour; Väänänen, Kaisa. Proceedings of the 18th International Conference on Human-Computer Interaction with Mobile Devices and Services Adjunct, MobileHCI 2016. ACM, 2016. p. 1129-1133.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**MVP Explained : A Systematic Mapping Study on the Definitions of Minimal Viable Product.** / Lenarduzzi, Valentina; Taibi, Davide.

Proceedings - 42nd Euromicro Conference on Software Engineering and Advanced Applications, SEAA 2016. IEEE, 2016. p. 112-119.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Ensembles of dense and dense sampling descriptors for the HEP-2 cells classification problem.** / Nanni, Loris; Lumini, Alessandra; dos Santos, Florentino Luciano Caetano; Paci, Michelangelo; Hyttinen, Jari.

In: Pattern Recognition Letters, Vol. 82, 15.10.2016, p. 28-35.

Research output: Contribution to journal › Article › Scientific › peer-review

**Casual immersive viewing with smartphones.** / Rakkolainen, Ismo; Raisamo, Roope; Turk, Matthew; Höllerer, Tobias; Palovuori, Karri.

AcademicMindtrek 2016 - Proceedings of the 20th International Academic Mindtrek Conference. ACM, 2016. p. 449-452.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Focusing on user experience and business models in startups : Investigation of two-dimensional value creation.** / Hokkanen, Laura; Xu, Yueqiang; Väänänen, Kaisa.

AcademicMindtrek 2016 - Proceedings of the 20th International Academic Mindtrek Conference. ACM, 2016. p. 59-67.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Participatory development of user experience design guidelines for a B2B company.** / Hildén, Elina; Väättäjä, Heli; Roto, Virpi; Uusitalo, Kero.

AcademicMindtrek '16 Proceedings of the 20th International Academic Mindtrek Conference . ACM, 2016. p. 49-58.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Software visualization today - Systematic literature review.** / Mattila, Anna-Liisa; Ihantola, Petri; Kilamo, Terhi; Luoto, Antti ; Nurminen, Mikko; Väättäjä, Heli.

AcademicMindtrek 2016 - Proceedings of the 20th International Academic Mindtrek Conference. ACM, 2016. p. 262-271.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Temporal dimensions of affect in user experience of digital news in the field.** / Jumisko-Pyykkö, Satu; Pesonen, Emilia; Väättäjä, Heli.

AcademicMindtrek 2016 - Proceedings of the 20th International Academic Mindtrek Conference. ACM, 2016. p. 192-197.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Improving the delivery cycle : A multiple-case study of the toolchains in Finnish software intensive enterprises.** / Mäkinen, Simo; Leppänen, Marko; Kilamo, Terhi; Mattila, Anna-Liisa; Laukkanen, Eero; Pagels, Max; Männistö, Tomi.

In: Information and Software Technology, Vol. 80, 01.12.2016, p. 1339-1351.

Research output: Contribution to journal › Article › Scientific › peer-review

**BM3D-HVS : Content-Adaptive denoising for improved visual quality.** / Egiazarian, Karen; Danielyan, Aram; Ponomarenkoa, Nikolay; Foia, Alessandro; Ieremeiev, Oleg; Lukin, Vladimir.

Image Processing: Algorithms and Systems XV. 2017. p. 48-55 (Electronic Imaging).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Data Rate Assessment on L2-L3 CPU Bus and Bus between CPU and RAM in Modern CPUs.** / Komar, M. S.

In: Automatic Control and Computer Sciences, Vol. 51, No. 7, 2017, p. 701-708.

Research output: Contribution to journal › Article › Scientific › peer-review

**From theories to game mechanics : Developing a game for training rational numbers.** / Kiili, Kristian.

Proceedings of the 11th European Conference on Games Based Learning, ECGBL 2017. Academic Conferences and Publishing International Limited, 2017. p. 328-334.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Full-reference metrics multidistortional analysis.** / Ieremeiev, Oleg; Lukin, Vladimir; Ponomarenko, Nikolay; Egiazarian, Karen.

Image Processing: Algorithms and Systems XV. 2017. p. 27-35 (Electronic Imaging).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Method for Simulating Dose Reduction in Digital Breast Tomosynthesis.** / Borges, Lucas R.; Guerrero, Igor; Bakic, Predrag R.; Foi, Alessandro; Maidment, Andrew D.A.; Vieira, Marcelo A.C.

In: IEEE Transactions on Medical Imaging, Vol. 36, No. 11, 2017, p. 2331-2342.

Research output: Contribution to journal › Article › Scientific › peer-review

**Urban 3D segmentation and modelling from street view images and LiDAR point clouds.** / Babahajiani, Pouria; Fan, Lixin; Kämäräinen, Joni-Kristian; Gabbouj, Moncef.

In: Machine Vision and Applications, Vol. 28, No. 7, 2017, p. 679–694.

Research output: Contribution to journal › Article › Scientific › peer-review

**Stop it, and be stubborn!** / Valmari, Antti.

In: ACM Transactions on Embedded Computing Systems, Vol. 16, No. 2, 46, 01.01.2017.

Research output: Contribution to journal › Article › Scientific › peer-review

**Post-deployment data : A recipe for satisfying knowledge needs in software development?** / Suonsyrjä, Sampo; Hokkanen, Laura; Terho, Henri; Systä, Kari; Mikkonen, Tommi.

2016 Joint Conference of the International Workshop on Software Measurement and the International Conference on Software Process and Product Measurement (IWSM-MENSURA). IEEE, 2017. p. 139-147.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Modular audio story platform for museums.** / Salo, Kari; Zinin, Vallo; Bauters, Merja; Mikkonen, Tommi.

IUI 2017 - Companion of the 22nd International Conference on Intelligent User Interfaces. ACM, 2017. p. 113-116.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**A Mixed Finite Element Method to Solve the EEG Forward Problem.** / Vorwerk, J.; Engwer, C.; Pursiainen, S.; Wolters, C. H.

In: IEEE Transactions on Medical Imaging, Vol. 36, No. 4, 7731161, 01.04.2017, p. 930-941.

Research output: Contribution to journal › Article › Scientific › peer-review

**On continuous deployment maturity in customer projects.** / Virtanen, Antti; Kuusinen, Kati; Leppänen, Marko; Luoto, Antti; Kilamo, Terhi; Mikkonen, Tommi.

32nd Annual ACM Symposium on Applied Computing, SAC 2017. ACM, 2017. p. 1205-1212.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**User generated soundscapes activating museum visitors.** / Salo, Kari; Bauters, Merja; Mikkonen, Tommi.

32nd Annual ACM Symposium on Applied Computing, SAC 2017. ACM, 2017. p. 220-227.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Preventing keystroke based identification in open data sets.** / Leinonen, Juho; Ihanntola, Petri; Hellas, Arto.

L@S 2017 - Proceedings of the 4th (2017) ACM Conference on Learning at Scale. ACM, 2017. p. 101-109.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Effects of extrinsic noise are promoter kinetics dependent.** / Bahrudeen, Mohamed N.M.; Startceva, Sofia; Ribeiro, Andre S.

Proceedings of the 2017 9th International Conference on Bioinformatics and Biomedical Technology, ICBBT 2017. ACM, 2017. p. 44-47.



Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Comparing the Built-In Application Architecture Models in the Web Browser.** / Taivalsaari, Antero; Mikkonen, Tommi; Pautasso, Cesare; Systä, Kari.

2017 IEEE International Conference on Software Architecture (ICSA). IEEE, 2017. p. 51-54 7930198.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Microservices in agile software development : A workshop-based study into issues, advantages, and disadvantages.** /

Taibi, Davide; Lenarduzzi, Valentina; Pahl, Claus; Janes, Andrea.

Proceedings of the XP2017 Scientific Workshops, XP 2017. Vol. Part F129907 Association for Computing Machinery, 2017. a23.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Comparing communication effort within the scrum, scrum with Kanban, XP, and Banana development processes.** / Taibi,

Davide; Lenarduzzi, Valentina; Ahmad, Muhammad Ovais; Liukkonen, Kari.

Proceedings of the 21st International Conference on Evaluation and Assessment in Software Engineering, EASE 2017. Vol. Part F128635 Association for Computing Machinery, 2017. p. 258-263.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Operationalizing the experience factory for effort estimation in agile processes.** / Taibi, D.; Lenarduzzi, V.; Diebold, P.; Lunesu, I.

Proceedings of the 21st International Conference on Evaluation and Assessment in Software Engineering, EASE 2017. Vol. Part F128635 Association for Computing Machinery, 2017. p. 31-40.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**A k-nearest neighbor multilabel ranking algorithm with application to content-based image retrieval.** / Zhang, Honglei; Kiranyaz, Serkan; Gabbouj, Moncef.

2017 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2017 - Proceedings. IEEE, 2017. p. 2587-2591.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**An accumulative fusion architecture for discriminating people and vehicles using acoustic and seismic signals.** / Lee, Kyunghun; Riggan, Benjamin S.; Bhattacharyya, Shuvra S.

2017 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2017 - Proceedings. IEEE, 2017. p. 2976-2980.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Inband full-duplex radio access system with self-backhauling : Transmit power minimization under QOS requirements.** / Korpi, Dani; Riihonen, Taneli; Valkama, Mikko.

2017 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2017 - Proceedings. IEEE, 2017. p. 6558-6562.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Reduced-complexity digital predistortion for massive MIMO.** / Abdelaziz, Mahmoud; Anttila, Lauri; Valkama, Mikko.

2017 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2017 - Proceedings. IEEE, 2017. p. 6478-6482.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Barriers for bridging interpersonal gaps : Three inspirational design patterns for increasing collocated social interaction.** / Mitchell, Robb; Olsson, Thomas.

C&T 2017 - 8th International Conference on Communities and Technologies, Conference Proceedings. ACM, 2017. p. 2-10.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Children designing videos : Tools, pedagogical models, and best practices for digital storytelling and media-making in the classroom.** / Multisilta, Jari; Niemi, Hannele; Hamilton, Eric.

IDC 2017 - Proceedings of the 2017 ACM Conference on Interaction Design and Children. ACM, 2017. p. 693-696.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Using and collecting fine-grained usage data to improve online learning materials.** / Leppänen, Leo; Leinonen, Juho; Ihantola, Petri; Hellas, Arto.

Proceedings - 2017 IEEE/ACM 39th International Conference on Software Engineering: Software Engineering and Education Track, ICSE-SEET 2017. IEEE, 2017. p. 4-12.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**A convolutional neural network approach for acoustic scene classification.** / Valenti, Michele; Squartini, Stefano; Diment, Aleksandr; Parascandolo, Giambattista; Virtanen, Tuomas.

2017 International Joint Conference on Neural Networks, IJCNN 2017. IEEE, 2017. p. 1547-1554.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Analyzing Forty years of software maintenance models.** / Lenarduzzi, Valentina; Sillitti, Alberto; Taibi, Davide.

Proceedings - 2017 IEEE/ACM 39th International Conference on Software Engineering Companion, ICSE-C 2017. Institute of Electrical and Electronics Engineers Inc., 2017. 7965284.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Class-specific kernel discriminant analysis based on Cholesky decomposition.** / Iosifidis, Alexandros; Gabbouj, Moncef.

2017 International Joint Conference on Neural Networks, IJCNN 2017. IEEE, 2017. p. 1141-1146.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**DevOps in regulated software development : Case medical devices.** / Laukkarinen, Teemu; Kuusinen, Kati; Mikkonen, Tommi.

Proceedings - 2017 IEEE/ACM 39th International Conference on Software Engineering: New Ideas and Emerging Results Track, ICSE-NIER 2017. IEEE, 2017. p. 15-18.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Generalized model of biological neural networks : Progressive operational perceptrons.** / Kiranyaz, Serkan; Ince, Turker; Iosifidis, Alexandros; Gabbouj, Moncef.

2017 International Joint Conference on Neural Networks, IJCNN 2017. IEEE, 2017. p. 2477-2485.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Running software research programs : An agile approach.** / Järvinen, Janne; Huomo, Tua; Mikkonen, Tommi.

Proceedings - 2017 IEEE/ACM 39th International Conference on Software Engineering Companion, ICSE-C 2017. IEEE, 2017. p. 314-316.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Multi-robot active information gathering with periodic communication.** / Lauri, Mikko; Heinänen, Eero; Frintrop, Simone.

ICRA 2017 - IEEE International Conference on Robotics and Automation. IEEE, 2017. p. 851-856.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Robustifying correspondence based 6D object pose estimation.** / Hietanen, Antti; Halme, Jussi; Buch, Anders Glent; Latokartano, Jyrki; Kamarainen, J.-K.

ICRA 2017 - IEEE International Conference on Robotics and Automation. IEEE, 2017. p. 739-745.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Hardware design methodology using lightweight dataflow and its integration with low power techniques.** / Fanni, Tiziana; Li, Lin; Viitanen, Timo; Sau, Carlo; Xie, Renjie; Palumbo, Francesca; Raffo, Luigi; Huttunen, Heikki; Takala, Jarmo; Bhattacharyya, Shuvra S.

In: Journal of Systems Architecture, Vol. 78, 01.08.2017, p. 15-29.

Research output: Contribution to journal › Article › Scientific › peer-review

**Comparison of time metrics in programming.** / Leinonen, Juho; Leppänen, Leo; Ihantola, Petri; Hellas, Arto.

ICER 2017 - Proceedings of the 2017 ACM Conference on International Computing Education Research. ACM, 2017. p. 200-208.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Architecting liquid software.** / Gallidabino, Andrea; Pautasso, Cesare; Mikkonen, Tommi; Systä, Kari; Voutilainen, Jari-Pekka; Taivalsaari, Antero.

In: Journal of Web Engineering, Vol. 16, No. 5-6, 01.09.2017, p. 433-470.

Research output: Contribution to journal › Article › Scientific › peer-review

**Predicting academic success based on learning material usage.** / Leppänen, Leo; Leinonen, Juho; Ihantola, Petri; Hellas, Arto.

SIGITE 2017 - Proceedings of the 18th Annual Conference on Information Technology Education. ACM, 2017. p. 13-18.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Gamified crowdsourcing : Conceptualization, literature review, and future agenda.** / Morschheuser, Benedikt; Hamari, Juho; Koivisto, Jonna; Maedche, Alexander.

In: International Journal of Human-Computer Studies, Vol. 106, 01.10.2017, p. 26-43.

Research output: Contribution to journal › Article › Scientific › peer-review

**Highly unique network descriptors based on the roots of the permanent polynomial.** / Dehmer, Matthias; Emmert-Streib, Frank; Hu, Bo; Shi, Yongtang; Stefu, Monica; Tripathi, Shailesh.

In: Information Sciences, Vol. 408, 01.10.2017, p. 176-181.

Research output: Contribution to journal › Article › Scientific › peer-review

**Big Media Data Analysis.** / Iosifidis, Alexandros; Tefas, Anastasios; Pitas, Ioannis; Gabbouj, Moncef.

In: Signal Processing: Image Communication, Vol. 59, 01.11.2017, p. 105-108.

Research output: Contribution to journal › Editorial › Scientific › peer-review

**Multi-factor authentication for wearables : Configuring system parameters with risk function.** / Bezzateev, Sergey; Afanasyeva, Aleksandra; Voloshina, Natalia; Ometov, Aleksandr.

Proceedings of the 2nd International Conference on Advanced Wireless Information, Data, and Communication Technologies, AWICT 2017. ACM, 2017.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**How developers perceive smells in source code : A replicated study.** / Taibi, Davide; Janes, Andrea; Lenarduzzi, Valentina.

In: Information and Software Technology, Vol. 92, 01.12.2017, p. 223-235.

Research output: Contribution to journal › Article › Scientific › peer-review

**Multilinear class-specific discriminant analysis.** / Thanh Tran, Dat; Gabbouj, Moncef; Iosifidis, Alexandros.

In: Pattern Recognition Letters, Vol. 100, 01.12.2017, p. 131-136.

Research output: Contribution to journal › Article › Scientific › peer-review

**Quantitative Graph Theory : A new branch of graph theory and network science.** / Dehmer, Matthias; Emmert-Streib, Frank; Shi, Yongtang.

In: Information Sciences, Vol. 418-419, 01.12.2017, p. 575-580.

Research output: Contribution to journal › Article › Scientific › peer-review

**Sparse approximations in complex domain based on BM3D modeling.** / Katkovnik, Vladimir; Ponomarenko, Mykola; Egiazarian, Karen.

In: Signal Processing, Vol. 141, 01.12.2017, p. 96-108.

Research output: Contribution to journal › Article › Scientific › peer-review

**A Dataset for Camera Independent Color Constancy.** / Aytekin, Caglar; Nikkanen, Jarno; Gabbouj, Moncef.

In: IEEE Transactions on Image Processing, Vol. 27, No. 2, 2018, p. 530-544.

Research output: Contribution to journal › Article › Scientific › peer-review

**An algebraic approach to reducing the number of variables of incompletely defined discrete functions.** / Astola, Jaakko; Astola, Pekka; Stanković, Radomir; Tabus, Ioan.  
In: Journal of Multiple-Valued Logic and Soft Computing, Vol. 31, No. 3, 2018, p. 239-253.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Architectural patterns for microservices : A systematic mapping study.** / Taibi, Davide; Lenarduzzi, Valentina; Pahl, Claus.  
CLOSER 2018 - Proceedings of the 8th International Conference on Cloud Computing and Services Science.  
SCITEPRESS, 2018. p. 221-232.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Blind estimation of white Gaussian noise variance in highly textured images.** / Ponomarenko, Mykola; Gapon, Nikolay; Voronin, Viacheslav; Egiazarian, Karen.  
Electronic Imaging: Image Processing: Algorithms and Systems XVI. Society for Imaging Science and Technology, 2018.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Combined local and global image enhancement algorithm.** / Voronin, V.; Semenishchev, E.; Ponomarenko, M.; Aghaian, S.  
Electronic Imaging: Image Processing: Algorithms and Systems XVI. Society for Imaging Science and Technology, 2018.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Compression of signs of DCT coefficients for additional lossless compression of JPEG images.** / Miroshnichenko, Oleksandr; Ponomarenko, Mykola; Lukin, Vladimir; Egiazarian, Karen.  
Electronic Imaging: Image Processing: Algorithms and Systems XVI. Society for Imaging Science and Technology, 2018.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Conversion of sparsely-captured light field into alias-free fullparallax multiview content.** / Sahin, Erdem; Vagharshakyan, Suren; Bregovic, Robert; Lee, Gwangsoon; Gotchev, Atanas.  
Electronic Imaging: Stereoscopic Displays and Applications XXIX. Society for Imaging Science and Technology, 2018. p. 1441-1445.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Deep p-Fibonacci scattering networks.** / Battisti, F.; Carli, M.; De Paola, E.; Egiazarian, K.  
Electronic Imaging: Image Processing: Algorithms and Systems XVI. Society for Imaging Science and Technology, 2018.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Fair testing and stubborn sets.** / Valmari, Antti; Vogler, Walter.  
In: International Journal on Software Tools for Technology Transfer, 2018, p. 589-610.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Federated IoT services leveraging 5G technologies at the edge.** / Farris, I.; Orsino, A.; Militano, L.; Iera, A.; Araniti, G.  
In: Ad Hoc Networks, Vol. 68, 2018, p. 58-69.  
Research output: Contribution to journal › Article › Scientific › peer-review

**How to design gamification? A method for engineering gamified software.** / Morschheuser, Benedikt; Hassan, Lobna; Werder, Karl; Hamari, Juho.  
In: Information and Software Technology, Vol. 95, 2018, p. 219-237.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Information Exchange Architecture for Collaborative Industrial Ecosystem.** / Kannisto, Petri; Hästbacka, David; Marttinen, Arto.  
In: Information Systems Frontiers, 2018, p. 1-16.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Information models and information exchange in plant-wide monitoring and control of industrial processes.** / Hästbacka, David; Kannisto, Petri; Vilkkö, Matti.  
Proceedings of the 10th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management - Volume 3: KMIS: September 18-20, 2018, Seville, Spain. SCITEPRESS, 2018. p. 216-222.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Is Texture Denoising Efficiency Predictable?** / Rubel, Oleksii; Lukin, Vladimir; Abramov, Sergey; Vozel, Benoit; Pogrebnyak, Oleksiy; Egiazarian, Karen.

In: International Journal of Pattern Recognition and Artificial Intelligence, Vol. 32, No. 1, 1860005, 2018.

Research output: Contribution to journal › Article › Scientific › peer-review

**Making the cloud work for software producers : Linking architecture, operating cost and revenue.** / Rosati, Pierangelo; Fowley, Frank; Pahl, Claus; Taibi, Davide; Lynn, Theo.

CLOSER 2018 - Proceedings of the 8th International Conference on Cloud Computing and Services Science.

SCITEPRESS, 2018. p. 364-375.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Memory Tampering Attack on Binary GCD Based Inversion Algorithms.** / Aldaya, Alejandro Cabrera; Brumley, Billy Bob; Sarmiento, Alejandro J.Cabrera; Sánchez-Solano, Santiago.

In: International Journal of Parallel Programming, 2018, p. 1-20.

Research output: Contribution to journal › Article › Scientific › peer-review

**Methods and tools for denoising of complex-valued images based on block-matching and high order singular value decomposition.** / Ponomarenko, Mykola; Katkovnik, Vladimir; Egiazarian, Karen.

Electronic Imaging: Image Processing: Algorithms and Systems XVI. Society for Imaging Science and Technology, 2018.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Mixed-integer linear programming approach for global discrete sizing optimization of frame structures.** / van Mellaert, R.; Mela, K.; Tiainen, T.; Heinisuo, M.; Lombaert, G.; Schevenels, M.

In: Structural and Multidisciplinary Optimization, Vol. 57, No. 2, 2018, p. 579–593.

Research output: Contribution to journal › Article › Scientific › peer-review

**Modeling and estimation of signal-dependent and correlated noise.** / Azzari, Lucio; Borges, Lucas Rodrigues; Foi, Alessandro.

Denoising of Photographic Images and Video: Fundamentals, Open Challenges and New Trends. SPRINGER-VERLAG LONDON LTD, 2018. p. 1-36 (Advances in Computer Vision and Pattern Recognition).

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

**Multisensor Time–Frequency Signal Processing MATLAB package : An analysis tool for multichannel non-stationary data.** / Boashash, Boualem; Aïssa-El-Bey, Abdeldjalil; Al-Sa'd, Mohammad F.

In: SoftwareX, Vol. 8, 2018, p. 53-58.

Research output: Contribution to journal › Article › Scientific › peer-review

**Multi-view predictive latent space learning.** / Yuan, Jirui; Gao, Ke; Zhu, Pengfei; Egiazarian, Karen.

In: Pattern Recognition Letters, 2018.

Research output: Contribution to journal › Article › Scientific › peer-review

**On the degeneracy of the Randić entropy and related graph measures.** / Dehmer, Matthias; Chen, Zengqiang; Mowshowitz, Abbe; Jodlbauer, Herbert; Emmert-Streib, Frank; Shi, Yongtang; Tripathi, Shailesh; Xia, Chengyi.

In: Information Sciences, 2018.

Research output: Contribution to journal › Article › Scientific › peer-review

**Probabilistic saliency estimation.** / Aytekin, Caglar; Iosifidis, Alexandros; Gabbouj, Moncef.

In: Pattern Recognition, Vol. 74, 2018, p. 359-372.

Research output: Contribution to journal › Article › Scientific › peer-review

**Reduction of variables of index generation functions using linear and quadratic transformations.** / Astola, Helena; Stanković, Radomir; Astola, Jaakko.

In: Journal of Multiple-Valued Logic and Soft Computing, Vol. 31, No. 3, 2018, p. 255-270.

Research output: Contribution to journal › Article › Scientific › peer-review

**Robust linearized combined metrics of image visual quality.** / Ieremeiev, Oleg; Lukin, Vladimir; Ponomarenko, Nikolay; Egiazarian, Karen.  
Electronic Imaging: Image Processing: Algorithms and Systems XVI. Society for Imaging Science and Technology, 2018.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Time-of-Flight Range Measurement in Low-sensing Environment : Noise Analysis and Complex-domain Non-local Denoising.** / Georgiev, Mihail; Bregovic, Robert; Gotchev, Atanas.  
In: IEEE Transactions on Image Processing, Vol. 27, No. 6, 2018.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Feature synthesis for image classification and retrieval via one-against-all perceptrons.** / Raitoharju, Jenni; Kiranyaz, Serkan; Gabbouj, Moncef.  
In: Neural Computing and Applications, Vol. 29, No. 4, 02.2018, p. 943–957.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Memory-Constrained vectorization and scheduling of dataflow graphs for hybrid CPU-GPU platforms.** / Lin, Shuoxin; Wu, Jiahao; Bhattacharyya, Shuvra S.  
In: ACM Transactions on Embedded Computing Systems, Vol. 17, No. 2, 50, 01.02.2018.  
Research output: Contribution to journal › Article › Scientific › peer-review

**A multi-agent approach for processing industrial enterprise data.** / Mohammed, Wael M.; Ferrer, Borja Ramis; Martinez, Jose L.; Sanchis, Raquel; Andres, Beatriz; Agostinho, Carlos.  
2017 International Conference on Engineering, Technology and Innovation: Engineering, Technology and Innovation Management Beyond 2020: New Challenges, New Approaches, ICE/ITMC 2017 - Proceedings. IEEE, 2018. p. 1209-1215.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**An approach to production scheduling optimization a case of an oil lubrication and hydraulic systems manufacturer.** / Katasonov, Artem; Lastusilta, Toni; Korvola, Timo; Saari, Leila; Bendas, Dan; Mohammed, Wael M.; Lee, Angelica Nieto.  
2017 International Conference on Engineering, Technology and Innovation: Engineering, Technology and Innovation Management Beyond 2020: New Challenges, New Approaches, ICE/ITMC 2017 - Proceedings. IEEE, 2018. p. 1123-1130.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Configuring and visualizing the data resources in a cloud-based data collection framework.** / Mohammed, Wael M.; Ferrer, Borja Ramis; Jose, L.; Lastra, Martinez; Aleixo, David; Agostinho, Carlos.  
2017 International Conference on Engineering, Technology and Innovation: Engineering, Technology and Innovation Management Beyond 2020: New Challenges, New Approaches, ICE/ITMC 2017 - Proceedings. IEEE, 2018. p. 1201-1208.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Exploiting suppliers' potential in construction innovations.** / Sariola, Rami.  
2017 International Conference on Engineering, Technology and Innovation: Engineering, Technology and Innovation Management Beyond 2020: New Challenges, New Approaches, ICE/ITMC 2017 - Proceedings. IEEE, 2018. p. 678-684.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Deep multiresolution color constancy.** / Aytekin, Caglar; Nikkanen, Jarno; Gabbouj, Moncef.  
2017 IEEE International Conference on Image Processing, ICIP 2017 - Proceedings. IEEE COMPUTER SOCIETY PRESS, 2018. p. 3735-3739.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**A design tool for high performance image processing on multicore platforms.** / Wu, Jiahao; Blattner, Timothy; Keyrouz, Walid; Bhattacharyya, Shuvra S.  
Proceedings of the 2018 Design, Automation and Test in Europe Conference and Exhibition, DATE 2018. IEEE, 2018. p. 1304-1309.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Ripple thermostat : Affecting the emotional experience through interactive force feedback and shape change.** / Van Oosterhout, Anke; Alonso, Miguel Bruns; Jumisko-Pyykkö, Satu.  
Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems . ACM, 2018. 655.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Towards secure cloud orchestration for multi-cloud deployments.** / Paladi, Nicolae; Michalas, Antonios; Dang, Hai Van.  
CrossCloud 2018 - 5th Workshop on CrossCloud Infrastructures and Platforms, colocated with EuroSys 2018. ACM, 2018. a4.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Backshoring of production in the context of a small and open Nordic economy.** / Heikkilä, Jussi; Martinsuo, Miia; Nenonen, Sanna.  
In: Journal of Manufacturing Technology Management, Vol. 29, No. 4, 05.2018, p. 658-675.  
Research output: Contribution to journal › Article › Scientific › peer-review

**On the Definition of Microservice Bad Smells.** / Taibi, Davide; Lenarduzzi, Valentina.  
In: IEEE Software, Vol. 35, No. 3, 01.05.2018, p. 56-62.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Preface : Special Issue on 'New Hydraulic Components for Tough Robots'.** / Suzumori, Koichi; Hyon, Sang Ho; Semini, Claudio; Mattila, Jouni; Kanda, Takefumi.  
In: Advanced Robotics, Vol. 32, No. 9, 03.05.2018.  
Research output: Contribution to journal › Editorial › Scientific

**Toward efficient many-core scheduling of partial expansion graphs.** / Tran, Hai Nam; Bhattacharyya, Shuvra S.; Talpin, Jean Pierre; Gautier, Thierry.  
Proceedings of the 21st International Workshop on Software and Compilers for Embedded Systems, SCOPES 2018. Association for Computing Machinery, Inc, 2018. p. 100-103.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Looking for a five-legged sheep : Identifying enterprise architects' skills and competencies.** / Ylinen, M.; Pekkola, Samuli.  
Proceedings of the 19th Annual International Conference on Digital Government Research: Governance in the Data Age, DG.O 2018. ACM, 2018. a58.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**A quasi-virtual online analyser based on an artificial neural networks and offline measurements to predict purities of raffinate/extract in simulated moving bed processes.** / Nogueira, Idelfonso B.R.; Ribeiro, Ana M.; Requião, Reiner; Pontes, Karen V.; Koivisto, Hannu; Rodrigues, Alirio E.; Loureiro, José M.  
In: Applied Soft Computing Journal, Vol. 67, 01.06.2018, p. 29-47.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Fast and easy live video service setup using lightweight virtualization.** / Heikkinen, Antti; Pääkkönen, Pekka; Viitanen, Marko; Vanne, Jarno; Riikonen, Tommi; Bakanoglu, Kagan.  
Proceedings of the 9th ACM Multimedia Systems Conference, MMSys 2018. ACM, 2018. p. 487-489.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Optimized viewport dependent streaming of stereoscopic omnidirectional video.** / Naik, Deepa; Curcio, Igor D.D.; Toukoma, Henri.  
Proceedings of the 23th ACM Workshop on Packet Video, PV 2018. ACM, 2018. p. 37-42.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Code notes : Designing a low-cost tangible coding tool for/with children.** / Sabuncuoğlu, Alpay; Erkaya, Merve; Buruk, Oğuz Turan; Göksun, Tilbe.  
IDC 2018 - Proceedings of the 2018 ACM Conference on Interaction Design and Children. ACM, 2018. p. 644-649.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Liking the game : How can spectating motivations influence social media usage at live esports events?** / Sjöblom, Max; Hassan, Lobna; Macey, Joseph; Törhönen, Maria; Hamari, Juho.  
Proceedings of the 9th International Conference on Social Media and Society, SMSociety 2018. ACM, 2018. p. 160-167.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Low latency edge rendering scheme for interactive 360 degree virtual reality gaming.** / Viitanen, Marko; Vanne, Jarno; Hämäläinen, Timo D.; Kulmala, Ari.  
Proceedings - 2018 IEEE 38th International Conference on Distributed Computing Systems, ICDCS 2018. IEEE, 2018. p. 1557-1560.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**A joint target localization and classification framework for sensor networks.** / Lee, Kyunghun; Riggan, Benjamin S.; Bhattacharyya, Shuvra S.  
2018 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2018 - Proceedings. Vol. 2018-April Institute of Electrical and Electronics Engineers Inc., 2018. p. 3076-3080 8462641.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Estimation of time-varying room impulse responses of multiple sound sources from observed mixture and isolated source signals.** / Nikunen, Joonas; Virtanen, Tuomas.  
2018 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2018 - Proceedings. Vol. 2018-April Institute of Electrical and Electronics Engineers Inc., 2018. p. 421-425 8462535 ( Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing).  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Low-energy graph fourier basis functions span salient objects.** / Malik, Junaid; Aytekin, Caglar; Gabbouj, Moncef.  
2018 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2018 - Proceedings. Vol. 2018-April Institute of Electrical and Electronics Engineers Inc., 2018. p. 1548-1552 8462672.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Statistical Evaluation of Visual Quality Metrics for Image Denoising.** / Egiazarian, Karen; Ponomarenko, Mykola; Lukin, Vladimir; Ieremeiev, Oleg.  
2018 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2018 - Proceedings. Vol. 2018-April Institute of Electrical and Electronics Engineers Inc., 2018. p. 6752-6756 8462294.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Designing for experiences with socially interactive robots.** / Obaid, Mohammad; Kaipainen, Kirsikka; Ocnarescu, Ioana; Ahtinen, Aino.  
NordiCHI 2018: Revisiting the Life Cycle - Proceedings of the 10th Nordic Conference on Human-Computer Interaction. ACM, 2018. p. 948-951.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Understanding animals : A critical challenge in ACI.** / Aspling, Fredrik; Juhlin, Oskar; Väättäjä, Heli.  
NordiCHI 2018: Revisiting the Life Cycle - Proceedings of the 10th Nordic Conference on Human-Computer Interaction. ACM, 2018. p. 148-160.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Reproducible Evaluation of System Efficiency with a Model of Architecture : From Theory to Practice.** / Pelcat, Maxime; Mercat, Alexandre; Desnos, Karol; Maggiani, Luca; Liu, Yanzhou; Heulot, Julien; Nezan, Jean Francois; Hamidouche, Wassim; Menard, Daniel; Bhattacharyya, Shuvra S.  
In: IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, Vol. 37, No. 10, 10.2018, p. 2050-2063.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Graph measures with high discrimination power revisited : A random polynomial approach.** / Dehmer, Matthias; Chen, Zengqiang; Emmert-Streib, Frank; Shi, Yongtang; Tripathi, Shailesh.  
In: Information Sciences, Vol. 467, 01.10.2018, p. 407-414.



**End-to-End Polyphonic Sound Event Detection Using Convolutional Recurrent Neural Networks with Learned Time-Frequency Representation Input.** / Cakir, Emre; Virtanen, Tuomas.

2018 International Joint Conference on Neural Networks, IJCNN 2018 - Proceedings. IEEE, 2018. 8489470.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Guidelines for development and evaluation of usage data analytics tools for human-machine interactions with industrial manufacturing systems.** / Varsaluoma, Jari; Väättäjä, Heli; Heimonen, Tomi; Tiitinen, Katariina; Hakulinen, Jaakko; Turunen, Markku; Nieminen, Harri.

Mindtrek 2018 - Proceedings of the 22nd International Academic Mindtrek Conference. ACM, 2018. p. 172-181.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Implications of audio and narration in the user experience design of virtual reality.** / Kelling, Chelsea; Karhu, Jussi; Kauhanen, Otto; Turunen, Markku; Väättäjä, Heli; Lindqvist, Vesa.

Mindtrek 2018 - Proceedings of the 22nd International Academic Mindtrek Conference. ACM, 2018. p. 258-261.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Multichannel Sound Event Detection Using 3D Convolutional Neural Networks for Learning Inter-channel Features.** / Adavanne, Sharath; Politis, Archontis; Virtanen, Tuomas.

2018 International Joint Conference on Neural Networks, IJCNN 2018 - Proceedings. IEEE, 2018. 8489542.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Robotic process automation - Creating value by digitalizing work in the private healthcare?** / Ratia, M.; Myllärniemi, J.; Helander, N.

Mindtrek 2018 - Proceedings of the 22nd International Academic Mindtrek Conference. ACM, 2018. p. 222-227.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Systematic literature review on user logging in virtual reality.** / Luoto, Antti.

Mindtrek 2018 - Proceedings of the 22nd International Academic Mindtrek Conference. ACM, 2018. p. 110-117.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**The Finnish you – An interactive storytelling application for an airport environment.** / Burova, Alisa; Kelling, Chelsea; Hakulinen, Jaakko; Kallioniemi, Pekka; Keskinen, Tuuli; Turunen, Markku; Väättäjä, Heli.

Mindtrek 2018 - Proceedings of the 22nd International Academic Mindtrek Conference. ACM, 2018. p. 182-191.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Power mitigation of a heterogeneous multicore architecture on FPGA/ASIC by DFS/DVFS techniques.** / Nouri, Sajjad; Rossi, Davide; Nurmi, Jari.

In: Microprocessors and Microsystems, Vol. 63, 01.11.2018, p. 259-268.

Research output: Contribution to journal › Article › Scientific › peer-review

**On the Secrecy Capacity of Fisher-Snedecor F Fading Channels.** / Badarneh, Osamah S.; Sofotasios, Paschalis C.; Muhaidat, Sami; Cotton, Simon L.; Rabie, Khaled; Al-Dhahir, Naofal.

2018 14th International Conference on Wireless and Mobile Computing, Networking and Communications, WiMob 2018. IEEE, 2018. p. 102-107.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**The N-Fisher-Snedecor F Cascaded Fading Model.** / Badarneh, Osamah S.; Muhaidat, Sami; Sofotasios, Paschalis C.; Cotton, Simon L.; Rabie, Khaled; Da Costa, Daniel B.

2018 14th International Conference on Wireless and Mobile Computing, Networking and Communications, WiMob 2018. IEEE, 2018.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Business intelligence process model revisited.** / Hellsten, Pasi; Myllärniemi, Jussi.

IC3K 2019 - Proceedings of the 11th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management. ed. / Jorge Bernardino; Ana Salgado; Joaquim Filipe. SCITEPRESS, 2019. p. 341-348

(IC3K 2019 - Proceedings of the 11th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management; Vol. 3).

Research output: [Chapter in Book/Report/Conference proceeding](#) › [Conference contribution](#) › [Scientific](#) › [peer-review](#)

**Challenges in developing data-based value creation.** / Myllärniemi, Jussi; Helander, Nina; Pekkola, Samuli.

IC3K 2019 - Proceedings of the 11th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management. ed. / Jorge Bernardino; Ana Salgado; Joaquim Filipe. SCITEPRESS, 2019. p. 370-376 (IC3K 2019 - Proceedings of the 11th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management; Vol. 3).

Research output: [Chapter in Book/Report/Conference proceeding](#) › [Conference contribution](#) › [Scientific](#) › [peer-review](#)

**Co-creating digital services for citizens : Activity theory analysis.** / Jussila, Jari; Kukkamäki, Joni; Helander, Nina.

IC3K 2019 - Proceedings of the 11th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management. ed. / Jorge Bernardino; Ana Salgado; Joaquim Filipe. SCITEPRESS, 2019. p. 285-290 (IC3K 2019 - Proceedings of the 11th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management; Vol. 3).

Research output: [Chapter in Book/Report/Conference proceeding](#) › [Conference contribution](#) › [Scientific](#) › [peer-review](#)

**Compatible natural gradient policy search.** / Pajarinen, Joni; Thai, Hong Linh; Akrou, Riad; Peters, Jan; Neumann, Gerhard.

In: Machine Learning, 2019.

Research output: [Contribution to journal](#) › [Article](#) › [Scientific](#) › [peer-review](#)

**Continuum approach to high-cycle fatigue. The finite life-time case with stochastic stress history.** / Orelma, H.

In: Vestnik Samarskogo Gosudarstvennogo Tekhnicheskogo Universiteta, Seriya Fiziko-Matematicheskie Nauki, Vol. 23, No. 3, 2019, p. 452-463.

Research output: [Contribution to journal](#) › [Article](#) › [Scientific](#) › [peer-review](#)

**Farm detection based on deep convolutional neural nets and semi-supervised green texture detection using VIS-NIR satellite image.** / Sharifzadeh, Sara; Tata, Jagati; Tan, Bo.

DATA 2019 - Proceedings of the 8th International Conference on Data Science, Technology and Applications. ed. / Slimane Hammoudi; Christoph Quix; Jorge Bernardino. SCITEPRESS, 2019. p. 100-108.

Research output: [Chapter in Book/Report/Conference proceeding](#) › [Conference contribution](#) › [Scientific](#) › [peer-review](#)

**Institutional Perspectives on the Process of Enterprise Architecture Adoption.** / Dang, Duong; Pekkola, Samuli.

In: Information Systems Frontiers, 2019.

Research output: [Contribution to journal](#) › [Article](#) › [Scientific](#) › [peer-review](#)

**Log analysis of 360-degree video users via MQTT.** / Luoto, Antti.

ICGDA 2019: Proceedings of the 2019 2nd International Conference on Geoinformatics and Data Analysis . ACM, 2019. p. 130-137.

Research output: [Chapter in Book/Report/Conference proceeding](#) › [Conference contribution](#) › [Scientific](#) › [peer-review](#)

**PyGOP : A Python library for Generalized Operational Perceptron algorithms.** / Tran, Dat Thanh; Kiranyaz, Serkan; Gabbouj, Moncef; Iosifidis, Alexandros.

In: Knowledge-Based Systems, 2019.

Research output: [Contribution to journal](#) › [Article](#) › [Scientific](#) › [peer-review](#)

**Revisiting continuous deployment maturity : A two-year perspective.** / Mäkinen, Simo; Puonti, Mikko; Lehtonen, Timo; Mikkonen, Tommi; Kilamo, Terhi; Männistö, Tomi.

Proceedings of the 34th ACM/SIGAPP Symposium on Applied Computing . ACM, 2019. p. 1810-1817.

Research output: [Chapter in Book/Report/Conference proceeding](#) › [Conference contribution](#) › [Scientific](#) › [peer-review](#)

**The Lord of the shares : Combining attribute-based encryption and searchable encryption for flexible data sharing.** / Michalas, Antonis.

Proceedings of the 34th ACM/SIGAPP Symposium on Applied Computing . ACM, 2019. p. 146-155.

Research output: [Chapter in Book/Report/Conference proceeding](#) › [Conference contribution](#) › [Scientific](#) › [peer-review](#)

**Zeffiro User Interface for Electromagnetic Brain Imaging : a GPU Accelerated FEM Tool for Forward and Inverse Computations in Matlab.** / He, Q.; Rezaei, A.; Pursiainen, S.

In: Neuroinformatics, 2019.

Research output: Contribution to journal › Article › Scientific › peer-review

**Performance evaluation of bandwidth reservation for mmWave 5G NR systems.** / Begishev, V. O.; Sopin, E. S.;

Molchanov, D. A.; Samouylov, A. K.; Gaidamaka, Yu V.; Samouylov, K. E.

In: Informatsionno-Upravliaiushchie Sistemy, No. 5, 01.01.2019, p. 51-63.

Research output: Contribution to journal › Article › Scientific › peer-review

**Towards detecting structural branching and cyclicity in graphs : A polynomial-based approach.** / Dehmer, Matthias; Chen, Zengqiang; Emmert-Streib, Frank; Mowshowitz, Abbe; Shi, Yongtang; Tripathi, Shailesh; Zhang, Yusen.

In: Information Sciences, Vol. 471, 01.01.2019, p. 19-28.

Research output: Contribution to journal › Article › Scientific › peer-review

**Additional lossless compression of JPEG images based on BPG.** / Ponomarenko, Mykola; Miroshnichenko, Oleksandr; Lukin, Vladimir; Egiazarian, Karen.

Image Processing: Algorithms and Systems XVII. 2019. (IS and T International Symposium on Electronic Imaging Science and Technology).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Combined no-reference IQA metric and its performance analysis.** / Ieremeiev, Oleg; Lukin, Vladimir; Ponomarenko, Nikolay; Egiazarian, Karen.

Image Processing: Algorithms and Systems XVII. 2019. (IS and T International Symposium on Electronic Imaging Science and Technology).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Phase masks optimization for broadband diffractive imaging.** / Ponomarenko, Mykola; Katkovnik, Vladimir; Egiazarian, Karen.

Image Processing: Algorithms and Systems XVII. 2019. (IS and T International Symposium on Electronic Imaging Science and Technology).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Thin form-factor super multiview head-up display system.** / Akpinar, Ugur; Sahin, Erdem; Suominen, Olli; Gotchev, Atanas. Stereoscopic Displays and Applications XXX . 2019. ( IS&T International Symposium on Electronic Imaging).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Challenges and recommended practices for software architecting in global software development.** / Sievi-Korte, Outi; Beecham, Sarah; Richardson, Ita.

In: Information and Software Technology, Vol. 106, 01.02.2019, p. 234-253.

Research output: Contribution to journal › Article › Scientific › peer-review

**Analysis of an efficient parallel implementation of active-set Newton algorithm.** / San Juan Sebastián, Pablo; Virtanen, Tuomas; Garcia-Molla, Victor M.; Vidal, Antonio M.

In: Journal of Supercomputing, Vol. 75, No. 3, 03.2019, p. 1298-1309.

Research output: Contribution to journal › Article › Scientific › peer-review

**Convolutional low-resolution fine-grained classification.** / Cai, Dingding; Chen, Ke; Qian, Yanlin; Kämäräinen, Joni-Kristian.

In: Pattern Recognition Letters, Vol. 119, 03.2019, p. 166-171.

Research output: Contribution to journal › Article › Scientific › peer-review

**Challenges of Multi-Factor Authentication for Securing Advanced IoT Applications.** / Ometov, Aleksandr; Petrov, Vitaly; Bezzateev, Sergey; Andreev, Sergey; Koucheryavy, Yevgeni; Gerla, Mario.

In: IEEE Network, Vol. 33, No. 2, 01.03.2019, p. 82-88.

Research output: Contribution to journal › Article › Scientific › peer-review

**How do academics experience use of recorded audio feedback in higher education? A thematic analysis.** / Heimbirger, Anneli; Isomottonen, Ville; Nieminen, Paavo; Keto, Harri.  
Frontiers in Education: Fostering Innovation Through Diversity, FIE 2018 - Conference Proceedings. IEEE, 2019. 8658635 (Proceedings - Frontiers in Education Conference).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**The FitOptiVis ECSEL Project : Highly Efficient Distributed Embedded Image/Video Processing in Cyber-Physical Systems Invited Paper.** / Al-Ars, Zaid; Basten, Twan; Beer, Adde; Geilen, Marc; Goswami, Dip; Jääskeläinen, Pekka; Kadlec, Jiří; Alejandro, Marcos Martinezde; Palumbo, Francesca; Peeren, Geran; Pomante, Luigi; Linden, Frank Vander; Saarinen, Juka; Sääntti, Tero; Sau, Carlo; Zedda, Maria Katuscia.

ACM International Conference on Computing Frontiers 2019, CF 2019 - Proceedings. ACM, 2019. p. 333-338.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**1-D Convolutional Neural Networks for Signal Processing Applications.** / Kiranyaz, Serkan; Ince, Turker; Abdeljaber, Osama; Avci, Onur; Gabbouj, Moncef.

2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings. IEEE, 2019. p. 8360-8364.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Convex Energy Optimization of Streaming Applications for MPSoCs.** / Nogues, E.; Mercat, A.; Arrestier, F.; Pelcat, M.; Menard, D.

2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings. IEEE, 2019. p. 1557-1561.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Deep Reinforcement Learning for Financial Trading Using Price Trailing.** / Zarkias, Konstantinos Saitas; Passalis, Nikolaos; Tsantekidis, Avraam; Tefas, Anastasios.

2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings. IEEE, 2019. p. 3067-3071.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Deep Temporal Logistic Bag-of-features for Forecasting High Frequency Limit Order Book Time Series.** / Passalis, Nikolaos; Tefas, Anastasios; Kannianen, Juho; Gabbouj, Moncef; Iosifidis, Alexandros.

2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings. IEEE, 2019. p. 7545-7549.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Low-latency Deep Clustering for Speech Separation.** / Wang, Shanshan; Naithani, Gaurav; Virtanen, Tuomas.

2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings. IEEE, 2019. p. 76-80.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Random Forest Oriented Fast QTBT Frame Partitioning.** / Amestoy, Thomas; Mercat, Alexandre; Hamidouche, Wassim; Bergeron, Cyril; Menard, Daniel.

2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings. IEEE, 2019. p. 1837-1841.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Time Difference of Arrival Estimation of Speech Signals Using Deep Neural Networks with Integrated Time-frequency Masking.** / Pertilä, Pasi; Parviainen, Mikko.

2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings. IEEE, 2019. p. 436-440.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Variance Preserving Initialization for Training Deep Neuromorphic Photonic Networks with Sinusoidal Activations.** / Passalis, Nikolaos; Mourgias-Alexandris, George; Tsakyridis, Apostolos; Pleros, Nikos; Tefas, Anastasios.

2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings. IEEE, 2019. p. 1483-1487.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Towards Efficient Code Generation for Exposed Datapath Architectures.** / Vadivel, Kanishkan; Jordans, Roel; Stuijk, Sander; Corporaal, Henk; Jääskeläinen, Pekka; Kultala, Heikki.

Proceedings of the 22nd International Workshop on Software and Compilers for Embedded Systems, SCOPES 2019. ed. / Sander Stuijk. ACM, 2019. p. 86-89.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Facilitating the first move : Exploring inspirational design patterns for aiding initiation of social encounters.** / Mitchell, Robb; Olsson, Thomas.

C&T 2019 - 9th International Conference on Communities and Technologies, Conference Proceedings. ed. / Hilda Tellioglu; Florian Cech. ACM, 2019. p. 283-294.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Investigation of egocentric social structures for diversity-enhancing followee recommendations.** / Skenderi, Erjon; Olshannikova, Ekaterina; Olsson, Thomas; Huhtamäki, Jukka; Koivunen, Sami; Yao, Peng; Huttunen, Heikki.

ACM UMAP 2019 Adjunct - Adjunct Publication of the 27th Conference on User Modeling, Adaptation and Personalization. ACM, 2019. p. 257-261.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Public and open HEVC encoding service in the cloud.** / Altonen, Aaro; Viitanen, Marko; Räsänen, Joni; Mercat, Alexandre; Vanne, Jarno.

Proceedings of the 10th ACM Multimedia Systems Conference, MMSys 2019. ACM, 2019. p. 300-303.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Detection of Typical Pronunciation Errors in Non-native English Speech Using Convolutional Recurrent Neural Networks.** / Diment, Aleksandr; Fagerlund, Eemi; Benfield, Adrian; Virtanen, Tuomas.

2019 International Joint Conference on Neural Networks, IJCNN 2019. IEEE, 2019.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**User Experience Study of 360° Music Videos on Computer Monitor and Virtual Reality Goggles.** / Holm, Jukka; Väänänen, Kaisa; Remans, Mohammad Mushfiqur Rahman.

Information Visualization - Biomedical Visualization and Geometric Modelling and Imaging, IV 2019. ed. / Ebad Banissi; Anna Ursyn; Mark W. McK. Bannatyne; Nuno Datia; Joao Moura Pires; Rita Francese; Muhammad Sarfraz; Theodor G Wyeld; Fatma Bouali; Gilles Venturin; Hanane Azzag; Mustapha Lebbah; Marjan Trutschl; Urska Cvek; Heimo Muller; Minoru Nakayama; Sebastian Kernbach; Loredana Caruccio; Michele Risi; Ugo Erra; Autilia Vitiello; Veronica Rossano. IEEE, 2019. p. 81-87 (Proceedings of the International Conference on Information Visualisation).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**High-performance SIMD implementation of the lattice-Boltzmann method on the Xeon Phi processor.** / Robertsén, Fredrik; Mattila, Keijo; Westerholm, Jan.

In: Concurrency Computation, Vol. 31, No. 13, e5072, 10.07.2019.

Research output: Contribution to journal › Article › Scientific › peer-review

**Real-time online drilling vibration analysis using data mining.** / Zare, Marzieh; Huova, Mikko; Visa, Ari; Launis, Sirpa.

Proceedings of the 2019 2nd International Conference on Data Science and Information Technology, DSIT 2019. ACM, 2019. p. 175-180.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Are architectural smells independent from code smells? An empirical study.** / Arcelli Fontana, Francesca; Lenarduzzi, Valentina; Roveda, Riccardo; Taibi, Davide.

In: Journal of Systems and Software, Vol. 154, 01.08.2019, p. 139-156.

Research output: Contribution to journal › Article › Scientific › peer-review

**Enabling cybersecurity incident reporting and coordinated handling for maritime sector.** / Silverajan, Bilhanan; Vistiaho, Petteri.

2019 14th Asia Joint Conference on Information Security, AsiaJCIS 2019. IEEE, 2019. p. 88-95.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Hermitian normalized Laplacian matrix for directed networks.** / Yu, Guihai; Dehmer, Matthias; Emmert-Streib, Frank; Jodlbauer, Herbert.

In: Information Sciences, Vol. 495, 01.08.2019, p. 175-184.

Research output: Contribution to journal > Article > Scientific > peer-review

**Game postmortems vs. developer Reddit AMAs : Computational analysis of developer communication.** / Lu, Chien; Peltonen, Jaakko; Nummenmaa, Timo.

Proceedings of the 14th International Conference on the Foundations of Digital Games, FDG 2019. ed. / Foaad Khosmood; Johanna Pirker; Thomas Apperley; Sebastian Deterding. ACM, 2019. 22.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Social features in hybrid board game marketing material.** / Nummenmaa, Timo; Kankainen, Ville.

Proceedings of the 14th International Conference on the Foundations of Digital Games, FDG 2019. ed. / Foaad Khosmood; Johanna Pirker; Thomas Apperley; Sebastian Deterding. ACM, 2019. 67.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Performance analysis of single-query 6-DoF camera pose estimation in self-driving setups.** / Fu, Junsheng; Pertuz, Said; Matas, Jiri; Kämäräinen, Joni-Kristian.

In: Computer Vision and Image Understanding, Vol. 186, 09.2019, p. 58-73.

Research output: Contribution to journal > Article > Scientific > peer-review

**Model checking and validity in propositional and modal inclusion logics.** / Hella, Lauri; Kuusisto, Antti; Meier, Arne; Virtema, Jonni.

In: JOURNAL OF LOGIC AND COMPUTATION, Vol. 29, No. 5, 01.09.2019, p. 605-630.

Research output: Contribution to journal > Article > Scientific > peer-review

**Tunable VVC Frame Partitioning based on Lightweight Machine Learning.** / Amestoy, Thomas; Mercat, Alexandre; Hamidouche, Wassim; Menard, Daniel; Bergeron, Cyril.

In: IEEE Transactions on Image Processing, 06.09.2019.

Research output: Contribution to journal > Article > Scientific > peer-review

**An icon that everyone wants to click : How perceived aesthetic qualities predict app icon successfulness.** / Jylhä, Henrietta; Hamari, Juho.

In: International Journal of Human Computer Studies, Vol. 130, 01.10.2019, p. 73-85.

Research output: Contribution to journal > Article > Scientific > peer-review

**Automatic word count estimation from daylong child-centered recordings in various language environments using language-independent syllabification of speech.** / Räsänen, Okko; Seshadri, Shreyas; Karadayi, Julien; Riebling, Eric; Bunce, John; Cristia, Alejandrina; Metzke, Florian; Casillas, Marisa; Rosemberg, Celia; Bergelson, Erika; Soderstrom, Melanie.

In: Speech Communication, Vol. 113, 01.10.2019, p. 63-80.

Research output: Contribution to journal > Article > Scientific > peer-review

**DevOps in practice : A multiple case study of five companies.** / Lwakatare, Lucy Ellen; Kilamo, Terhi; Karvonen, Teemu; Sauvola, Tanja; Heikkilä, Ville; Itkonen, Juha; Kuvaja, Pasi; Mikkonen, Tommi; Oivo, Markku; Lassenius, Casper.

In: Information and Software Technology, Vol. 114, 01.10.2019, p. 217-230.

Research output: Contribution to journal > Article > Scientific > peer-review

**The Double Shadowed  $\kappa$ - $\mu$  Fading Model.** / Simmons, Nidhi; Nogueira Da Silva, Carlos Rafael; Cotton, Simon L.; Sofotasios, Paschalis C.; Ki Yoo, Seong; Yacoub, Michel Daoud.

2019 International Conference on Wireless and Mobile Computing, Networking and Communications, WiMob 2019. IEEE, 2019. (International Conference on Wireless and Mobile Computing, Networking and Communications).

**Action-Oriented Programming Model : Collective Executions and Interactions in the Fog.** / Mäkitalo, Niko; Aaltonen, Timo; Raatikainen, Mikko; Ometov, Aleksandr; Andreev, Sergey; Koucheryavy, Yevgeni; Mikkonen, Tommi.

In: Journal of Systems and Software, Vol. 157, 110391, 01.11.2019.

Research output: Contribution to journal › Article › Scientific › peer-review

**Feasibility of FPGA accelerated IPsec on cloud.** / Vajaranta, Markku; Oinonen, Arto; Hämäläinen, Timo D.; Viitamäki, Vili; Markunmäki, J.; Kulmala, Ari.

In: Microprocessors and Microsystems, Vol. 71, 102861, 01.11.2019.

Research output: Contribution to journal › Article › Scientific › peer-review

**Programming languages for data-Intensive HPC applications : A systematic mapping study.** / Amaral, Vasco; Norberto, Beatriz; Goulão, Miguel; Aldinucci, Marco; Benkner, Siegfried; Bracciali, Andrea; Carreira, Paulo; Celms, Edgars; Correia, Luís; Grelck, Clemens; Karatza, Helen; Kessler, Christoph; Kilpatrick, Peter; Martiniano, Hugo; Mavridis, Ilias; Pillana, Sabri; Respício, Ana; Simão, José; Veiga, Luís; Visa, Ari.

In: Parallel Computing, Vol. 91, 102584, 08.11.2019.

Research output: Contribution to journal › Article › Scientific › peer-review

**Promoting local culture and enriching airport experiences through interactive storytelling.** / Burova, Alisa; Kelling, Chelsea; Keskinen, Tuuli; Hakulinen, Jaakko; Kallioniemi, Pekka; Väättäjä, Heli; Turunen, Markku.

MUM 2019 - 18th International Conference on Mobile and Ubiquitous Multimedia, Proceedings. ed. / Giulio Jacucci; Fabio Paterno; Michael Rohs; Carmen Santoro. Association for Computing Machinery, 2019. 3365640 (ACM International Conference Proceeding Series).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Bayesian receiver operating characteristic metric for linear classifiers.** / Hassan, Syeda Sakira; Huttunen, Heikki; Niemi, Jari; Tohka, Jussi.

In: Pattern Recognition Letters, Vol. 128, 01.12.2019, p. 52-59.

Research output: Contribution to journal › Article › Scientific › peer-review

**Software architecture design in global software development : An empirical study.** / Sievi-Korte, Outi; Richardson, Ita; Beecham, Sarah.

In: Journal of Systems and Software, Vol. 158, 110400, 01.12.2019.

Research output: Contribution to journal › Article › Scientific › peer-review

**Anthropometric clothing measurements from 3D body scans.** / Yan, Song; Wirta, Johan; Kämäräinen, Joni-Kristian.

In: Machine Vision and Applications, Vol. 31, No. 1-2, 7, 2020.

Research output: Contribution to journal › Article › Scientific › peer-review

**Sensor-Based Cooperative Multi-Antenna Spectrum Sensing with Imperfect Reporting Channels.** / Li, Meiling; Alhussein, Omar; Sofotasios, Paschalis C.; Muhaidat, Sami; Yoo, Paul D.; Liang, Jie; Wang, Anhong.

In: IEEE Transactions on Sustainable Computing, Vol. 5, No. 1, 2020, p. 48-60.

Research output: Contribution to journal › Article › Scientific › peer-review

**Compressive sensed video recovery via iterative thresholding with random transforms.** / Belyaev, Evgeny; Codreanu, Marian; Juntti, Markku; Egiazarian, Karen.

In: IET Image Processing, Vol. 14, No. 6, 2020, p. 1187-1200.

Research output: Contribution to journal › Article › Scientific › peer-review

**Does code quality affect pull request acceptance? An empirical study.** / Lenarduzzi, Valentina; Nikkola, Vili; Saarimäki, Nyyti; Taibi, Davide.

In: Journal of Systems and Software, Vol. 171, 110806, 2020.

Research output: Contribution to journal › Article › Scientific › peer-review

**Does migrating a monolithic system to microservices decrease the technical debt?** / Lenarduzzi, Valentina; Lomio, Francesco; Saarimäki, Nyyti; Taibi, Davide.

In: Journal of Systems and Software, Vol. 169, 110710, 2020.

Research output: Contribution to journal > Review Article > Scientific > peer-review

**Exploration and exploitation of sensorimotor contingencies for a cognitive embodied agent.** / Houbre, Quentin; Angleraud, Alexandre; Pieters, Roel.

ICAART 2020 - Proceedings of the 12th International Conference on Agents and Artificial Intelligence. ed. / Ana Rocha; Luc Steels; Jaap van den Herik. Vol. 2 SCITEPRESS, 2020. p. 546-554.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**FinnForest dataset : A forest landscape for visual SLAM.** / Ali, Ihtisham; Durmush, Ahmed; Suominen, Olli; Yli-Hietanen, Jari; Peltonen, Sari; Collin, Jussi; Gotchev, Atanas.

In: ROBOTICS AND AUTONOMOUS SYSTEMS, Vol. 132, 103610, 2020.

Research output: Contribution to journal > Article > Scientific > peer-review

**IoT-CryptoDiet : Implementing a lightweight cryptographic library based on ecdh and ecdsa for the development of secure and privacy-preserving protocols in contiki-ng.** / Frimpong, Eugene; Michalas, Antonis.

IoTDBS 2020 - Proceedings of the 5th International Conference on Internet of Things, Big Data and Security. ed. / Gary Wills; Peter Kacsuk; Victor Chang. SCITEPRESS, 2020. p. 101-111.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Multimodal subspace support vector data description.** / Sohrab, Fahad; Raitoharju, Jenni; Iosifidis, Alexandros; Gabbouj, Moncef.

In: Pattern Recognition, Vol. 110, 107648, 2020.

Research output: Contribution to journal > Article > Scientific > peer-review

**On the diffuseness of technical debt items and accuracy of remediation time when using SonarQube.** / Baldassarre, Maria Teresa; Lenarduzzi, Valentina; Romano, Simone; Saarimäki, Nyyti.

In: Information and Software Technology, Vol. 128, 106377, 2020.

Research output: Contribution to journal > Article > Scientific > peer-review

**Patterns for serverless functions (Function-as-a-Service) : A multivocal literature review.** / Taibi, Davide; El Ioini, Nabil; Pahl, Claus; Niederkofler, Jan Raphael Schmid.

CLOSER 2020 - Proceedings of the 10th International Conference on Cloud Computing and Services Science. ed. / Donald Ferguson; Markus Helfert; Claus Pahl. Vol. 1 SCITEPRESS, 2020. p. 181-192.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Redundancy-based visual tool center point pose estimation for long-reach manipulators.** / Mäkinen, Petri; Mustalahti, Pauli; Launis, Sirpa; Mattila, Jouni.

2020 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM 2020. IEEE, 2020. p. 1387-1393 (IEEE/ASME International Conference on Advanced Intelligent Mechatronics).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Shearlet Transform-Based Light Field Compression under Low Bitrates.** / Ahmad, Waqas; Vagharshakyan, Suren; Sjöstrom, Marten; Gotchev, Atanas; Bregovic, Robert; Olsson, Roger.

In: IEEE Transactions on Image Processing, Vol. 29, 2020, p. 4269-4280.

Research output: Contribution to journal > Article > Scientific > peer-review

**User experience of stereo and spatial audio in 360° live music videos.** / Holm, Jukka; Väänänen, Kaisa; Battah, Anas.

AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere. ACM, 2020. p. 134-141.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Validating effectiveness of safety requirements' compliance evaluation in process assessments.** / Varkoi, Timo; Mäkinen, Timo; Cameron, Frank; Nevalainen, Risto.

In: Journal of Software: Evolution and Process, Vol. 32, No. 3, e2177, 2020.



Research output: Contribution to journal › Article › Scientific › peer-review

**A preliminary network analysis on steam game tags : Another way of understanding game genres.** / Li, Xiaozhou; Zhang, Boyang.

AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 29-30, 2020, Tampere, Finland. ACM, 2020. p. 65-73.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Color game : A collaborative social robotic game for icebreaking; Towards the design of robotic ambiances as part of smart building services.** / Beheshtian, Nasim; Kaipainen, Kirsikka; Kähkönen, Kalle; Ahtinen, Aino.

AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere. ACM, 2020. p. 10-19.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Demographic differences in accumulated types of capital in massively multiplayer online role-playing games.** / Korkeila, Henry; Koivisto, Jonna; Hamari, Juho.

AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere. ACM, 2020. p. 74-82.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Innovation challenges as a novel multidisciplinary learning platform.** / Jokiniemi, Sini; Myllärniemi, Jussi; Poranen, Timo; Vuorenmaa, Marika.

AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere. ACM, 2020. p. 145-148.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Satisfaction and willingness to consume immersive journalism : Experiment of differences between VR, 360 video, and article.** / Bujic, Mila; Hamari, Juho.

AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere. ACM, 2020. p. 120-125.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Social human-robot interaction in the wild : A workshop proposal for academic mindtrek 2020.** / Niemelä, Marketta; Ahtinen, Aino; Turunen, Markku.

AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere. ACM, 2020. p. 168-169.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

**"The superhero of the university" : Experience-driven design and field study of the university guidance robot.** /

Chowdhury, Aparajita; Ahtinen, Aino; Kaipainen, Kirsikka.

AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere. ACM, 2020. p. 1-9.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**A custom processor for protocol-independent packet parsing.** / Zolfaghari, Hesam; Rossi, Davide; Nurmi, Jari.

In: Microprocessors and Microsystems, Vol. 72, 01.02.2020.

Research output: Contribution to journal › Article › Scientific › peer-review

**Are SonarQube Rules Inducing Bugs?** / Lenarduzzi, Valentina; Lomio, Francesco; Huttunen, Heikki; Taibi, Davide.

SANER 2020 - Proceedings of the 2020 IEEE 27th International Conference on Software Analysis, Evolution, and Reengineering. ed. / Kostas Kontogiannis; Foutse Khomh; Alexander Chatzigeorgiou; Marios-Eleftherios Fokaefs; Minghui Zhou. IEEE, 2020. p. 501-511.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Gaussian mixture models for signal mapping and positioning.** / Raitoharju, M.; García-Fernández, F.; Hostettler, R.; Piché, R.; Särkkä, S.

In: Signal Processing, Vol. 168, 107330, 01.03.2020.

Research output: Contribution to journal › Article › Scientific › peer-review

**Serverless : What it Is, What to Do and What Not to Do.** / Nupponen, Jussi; Taibi, Davide.

2020 IEEE International Conference on Software Architecture Companion, ICSCA-C 2020. IEEE, 2020. p. 49-50.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**SeCon-NG : Implementing a lightweight cryptographic library based on ECDH and ECDSA for the development of secure and privacy-preserving protocols in contiki-NG.** / Frimpong, Eugene; Michalakis, Antonios.

35th Annual ACM Symposium on Applied Computing, SAC 2020. ACM, 2020. p. 767-769.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Adaptive Normalization for Forecasting Limit Order Book Data Using Convolutional Neural Networks.** / Passalis, Nikolaos; Tefas, Anastasios; Kannianen, Juho; Gabbouj, Moncef; Iosifidis, Alexandros.

2020 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2020 - Proceedings. IEEE, 2020. p. 1713-1717 (ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings; Vol. 2020-May).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Peer to Peer Offloading with Delayed Feedback : An Adversary Bandit Approach.** / Yang, Miao; Zhu, Hongbin; Wang, Haifeng; Koucheryavy, Yevgeni; Samouylov, Konstantin; Qian, Hua.

2020 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2020 - Proceedings. IEEE, 2020. p. 5035-5039 (ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings; Vol. 2020-May).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Kvazaar 2.0 : Fast and efficient open-source HEVC inter encoder.** / Lemmetti, Ari; Viitanen, Marko; Mercat, Alexandre; Vanne, Jarno.

MMSys 2020 - Proceedings of the 2020 Multimedia Systems Conference. ACM, 2020. p. 237-242.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Flow-bounded trajectory-scaling algorithm for hydraulic robotic manipulators.** / Lampinen, Santeri; Niemi, Jouni; Mattila, Jouni.

2020 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM 2020. IEEE, 2020. p. 619-624 (IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**On the zeros of the partial Hosoya polynomial of graphs.** / Ghorbani, Modjtaba; Dehmer, Matthias; Cao, Shujuan; Feng, Lihua; Tao, Jin; Emmert-Streib, Frank.

In: Information Sciences, Vol. 524, 01.07.2020, p. 199-215.

Research output: Contribution to journal › Article › Scientific › peer-review

**Using Deep Learning for price prediction by exploiting stationary limit order book features.** / Tsantekidis, Avraam; Passalis, Nikolaos; Tefas, Anastasios; Kannianen, Juho; Gabbouj, Moncef; Iosifidis, Alexandros.

In: Applied Soft Computing Journal, Vol. 93, 106401, 01.08.2020.

Research output: Contribution to journal › Article › Scientific › peer-review

**Necessary and sufficient conditions for the existence of solution of generalized fuzzy relation equations  $A \Leftrightarrow X = B$ .** / Turunen, Esko.

In: Information Sciences, Vol. 536, 01.10.2020, p. 351-357.

Research output: Contribution to journal › Article › Scientific › peer-review

**Some SonarQube issues have a significant but small effect on faults and changes. A large-scale empirical study.** / Lenarduzzi, Valentina; Saarimäki, Nyyti; Taibi, Davide.

In: Journal of Systems and Software, Vol. 170, 110750, 12.2020.

Research output: Contribution to journal › Article › Scientific › peer-review

**Tailored gamification : A review of literature.** / Klock, Ana Carolina Tomé; Gasparini, Isabela; Pimenta, Marcelo Soares; Hamari, Juho.

In: International Journal of Human Computer Studies, Vol. 144, 102495, 01.12.2020.

Research output: Contribution to journal › Review Article › Scientific › peer-review

**The effect of challenge-based gamification on learning : An experiment in the context of statistics education.** / Legaki, Nikoletta Zampeta; Xi, Nannan; Hamari, Juho; Karpouzis, Kostas; Assimakopoulos, Vassilios.

In: International Journal of Human Computer Studies, Vol. 144, 102496, 01.12.2020.

Research output: Contribution to journal › Article › Scientific › peer-review