

### **A simulation case study of production planning and control in printed wiring board manufacturing**

Korhonen, H. M. E., Heikkilä, J. & Törnwall, J. M., 1 Dec 2001, In : Winter Simulation Conference Proceedings. 2, p. 844-847 4 p.

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

### **HCI and homecare: Connecting families and clinicians**

Mamykina, L., Bardram, J. E., Korhonen, I., Mynatt, E. & Pratt, W., 2004, *Conference on Human Factors in Computing Systems - Proceedings*. p. 1715-1716 2 p.

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

### **Classification of large graphs by a local tree decomposition**

Emmert-Streib, F., Dehmert, M. & Kilian, J., 2005, *Proceedings of the 2005 International Conference on Data Mining, DMIN'05*. p. 200-207 8 p.

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, T., Väättäjä, H. & Koponen, T., 2009, *MindTrek 2009 - 13th International Academic MindTrek Conference: Everyday Life in the Ubiquitous Era*. p. 45-52 8 p.

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

### **Pure e-learning course in information security**

Koskinen, J. A. & Kelo, T. O., 2009, *Proceedings of SIN'09, Second International Conference on Security of Information and Networks, Famagusta, North Cyros, October 6-10, 2009*. Elci, A. (ed.). p. 8-13 6 p. 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, S., Taibi, D. & Tosi, D., 2009, *Proceedings of the 2009 ICSE Workshop on Emerging Trends in Free/Libre/Open Source Software Research and Development, FLOSS 2009*. p. 25-30 6 p. 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**

Loloei, A. Z., Mohammadi Aref, M. & Taghirad, H. D., 2009, *IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM*. p. 1034-1039 6 p. 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, A., Aref, M. M. & Taghirad, H. D., 2010, *Proceedings - IEEE International Conference on Robotics and Automation*. p. 650-655 6 p. 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, L., Morasca, S., Taibi, D. & Tosi, D., 2010, *ESEM 2010 - Proceedings of the 2010 ACM-IEEE International Symposium on Empirical Software Engineering and Measurement*. 1852834

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

### **The QualiSPo approach to OSS product quality evaluation**

Del Bianco, V., Lavazza, L., Morasca, S., Taibi, D. & Tosi, D., 2010, *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*. p. 23-28 6 p.

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

### **Conversion algorithms and implementations for koblitz curve cryptography**

Brumley, B. B. & Jarvinen, K. U., 4 Jan 2010, In : IEEE Transactions on Computers. 59, 1, p. 81-92 12 p., 5255226.

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

### **A model-based schedule representation for heterogeneous mapping of dataflow graphs**

Wu, H. H., Shen, C. C., Sane, N., Plishker, W. & Bhattacharyya, S. S., 2011, *2011 IEEE International Symposium on Parallel and Distributed Processing, Workshops and Phd Forum, IPDPSW 2011*. p. 70-81 12 p. 6008822

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

### **Bit-sliced binary normal basis multiplication**

Brumley, B. & Page, D., 2011, *Proceedings - 20th IEEE Symposium on Computer Arithmetic, ARITH-20*. p. 205-212 8 p. 5992128

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

### **Comparison of gaze-to-objects mapping algorithms**

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

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

### **Database-driven tool support for DisCo executable specifications**

Nummenmaa, J. & Nummenmaa, T., 2011, *SPLST'11 - Proceedings 12th Symposium on Programming Languages and Software Tools*. p. 44-54 11 p.

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

### **Designing tactile feedback for piezo buttons**

Lylykangas, J., Surakka, V., Salminen, K., Raisamo, J., Laitinen, P., Rönning, K. & Raisamo, R., 2011, *CHI 2011 - 29th Annual CHI Conference on Human Factors in Computing Systems, Conference Proceedings and Extended Abstracts*. p. 3281-3284 4 p.

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, Y., Surakka, V., Zhao, G., Mäkinen, E. & Raisamo, R., 2011, *Selected Papers from the Proceedings of the 7th International Conference on Methods and Techniques in Behavioral Research - Digital Edition, MB'10*. 21

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

### **Framework for designing and evaluating game achievements**

Hamari, J. & Eranti, V., 2011, *Proceedings of DiGRA 2011 Conference: Think Design Play*.

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

### **Generative modeling for maximizing precision and recall in information visualization**

Peltonen, J. & Kaski, S., 2011, In : *Journal of Machine Learning Research*. 15, p. 579-587 9 p.

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

### **Narrative friction in Alternate Reality Games: Design insights from conspiracy for good**

Stenos, J., Holopainen, J., Waern, A., Montola, M. & Ollila, E., 2011, *Proceedings of DiGRA 2011 Conference: Think Design Play*.

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, S. & Sotamaa, O., 2011, *Proceedings of DiGRA 2011 Conference: Think Design Play*.

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

### **On delay distribution in IEEE 802.11 wireless networks**

Ivanov, S., Botvich, D. & Balasubramaniam, S., 2011, *16th IEEE Symposium on Computers and Communications, ISCC'11*. p. 254-256 3 p. 5983849

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

### **On the costs of multiple trajectory pointing methods**

Quinn, P., Cockburn, A., Räihä, K. J. & Delamarche, J., 2011, *CHI 2011 - 29th Annual CHI Conference on Human Factors in Computing Systems, Conference Proceedings and Extended Abstracts*. p. 859-862 4 p.

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

#### **Reducing the number of unit tests with design by contract**

Hakonen, H., Hyrynsalmi, S. & Järvi, A., 2011, *Computer Systems and Technologies - 12th International Conference, CompSysTech'11 - Proceedings*. Vol. 578. p. 161-166 6 p.

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

#### **Scheduling of CAL actor networks based on dynamic code analysis**

Boutellier, J., Silven, O. & Raulet, M., 2011, *2011 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2011 - Proceedings*. p. 1609-1612 4 p. 5946805

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

#### **Silicon capillary gripper with self-alignment capability**

Sariola, V., Liimatainen, V., Tolonen, T., Udd, R. & Zhou, Q., 2011, *2011 IEEE International Conference on Robotics and Automation, ICRA 2011*. p. 4098-4103 6 p. 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, J., Lucero, A., Saarenpää, H., Nummenmaa, T., Ali, A. E. & Jokela, T., 2011, *Proceedings of the 8th International Conference on Advances in Computer Entertainment Technology, ACE 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, E., Trendafilov, D., Ahmaniemi, T. & Raisamo, R., 2011, *CHI EA 2011 - 29th Annual CHI Conference on Human Factors in Computing Systems, Conference Proceedings and Extended Abstracts*. p. 1309-1314 6 p.

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, S. A., Saastamoinen, J., Tiensyrjä, K. & Nurmi, J., 2011, *Proceedings - IEEE 9th International Conference on Dependable, Autonomic and Secure Computing, DASC 2011*. p. 313-320 8 p.

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**

Stenos, J. & Montola, M., 2011, *Proceedings of DiGRA 2011 Conference: Think Design Play*.

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

#### **Guidelines for improving the testing process of open source software**

Morasca, S., Taibi, D. & Tosi, D., Apr 2011, In : *International Journal of Open Source Software and Processes*. 3, 2, p. 1-22 22 p.

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

#### **Multimodal and mobile conversational Health and Fitness Companions**

Turunen, M., Hakulinen, J., Ståhl, O., Gambäck, B., Hansen, P., Rodríguez Gancedo, M. C., De La Cámara, R. S., Smith, C., Charlton, D. & Cavazza, M., Apr 2011, In : *Computer Speech and Language*. 25, 2, p. 192-209 18 p.

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

#### **Some background on dialogue management and conversational speech for dialogue systems**

Wilks, Y., Catizone, R., Worgan, S. & Turunen, M., Apr 2011, In : *Computer Speech and Language*. 25, 2, p. 128-139 12 p.

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

#### **A survey on open source software trustworthiness**

Del Bianco, V., Lavazza, L., Morasca, S. & Taibi, D., Sep 2011, In : *IEEE Software*. 28, 5, p. 67-75 9 p.

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

### **Interaction strategies for an affective conversational agent**

Smith, C., Crook, N., Dobnik, S., Charlton, D., Boye, J., Pulman, S., Santos de la Camara, R., Turunen, M., Benyon, D., Bradley, J., Gambäck, B., Hansen, P., Mival, O., Webb, N. & Cavazza, M., Oct 2011, In : *Presence: Teleoperators and Virtual Environments*. 20, 5, p. 395-411 17 p.

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

### **Managing concern knowledge in software systems**

Hammouda, I., Koskimies, K. & Mikkonen, T., Nov 2011, In : *INTERNATIONAL JOURNAL OF SOFTWARE ENGINEERING AND KNOWLEDGE ENGINEERING*. 21, 7, p. 957-987 31 p.

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, A., Brône, G., Cheng, S. & Majaranta, P., 2012, *UbiComp'12 - Proceedings of the 2012 ACM Conference on Ubiquitous Computing*. p. 673-676 4 p.

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, L., Morasca, S., Taibi, D. & Tosi, D., 2012, *27th Annual ACM Symposium on Applied Computing, SAC 2012*. p. 1109-1114 6 p.

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**

Räihä, K. J. & Ovaska, S., 2012, *Conference Proceedings - The 30th ACM Conference on Human Factors in Computing Systems, CHI 2012*. p. 3001-3010 10 p.

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

### **Briefing news reporting with mobile assignments - Perceptions, needs and challenges**

Väätäjä, H. & Egglestone, P., 2012, *Proceedings of the ACM 2012 conference on Computer Supported Cooperative Work CSCW'12 Seattle, WA, USA, February 11-15, 2012*. New York, NY: ACM, p. 485-494 10 p. (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, Y., Špakov, O. & Surakka, V., 2012, *Proceedings of the Working Conference on Advanced Visual Interfaces, AVI 2012*. p. 132-139 8 p.

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, B., Isokoski, P., Karmann, G. & Rollingner, T., 2012, *Proceedings of the Working Conference on Advanced Visual Interfaces, AVI 2012*. p. 357-364 8 p.

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

### **Designing and evaluating text entry methods**

Kristensson, P. O., Clawson, J., Dunlop, M., Isokoski, P., Roark, B., Vertanen, K., Waller, A. & Wobbrock, J., 2012, *Extended Abstracts - The 30th ACM Conference on Human Factors in Computing Systems, CHI 2012*. p. 2747-2750 4 p.

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

### **Enhanced gaze interaction using simple head gestures**

Špakov, O. & Majaranta, P., 2012, *UbiComp'12 - Proceedings of the 2012 ACM Conference on Ubiquitous Computing*. p. 705-710 6 p.

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

### **FS-PGBR: A scalable and delay sensitive cloud routing protocol**

Mineraud, J., Donnelly, W., Balasubramaniam, S. & Kangasharju, J., 2012, *Proceedings of the ACM SIGCOMM 2012 and Best Papers of the Co-located Workshops*. 4 ed. Vol. 42. p. 301-302 2 p.

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, S., Kawahara, Y. & Tentzeris, M. M., 2012, *MobileHealth'12 - Proceedings of the 2nd ACM International Workshop on Pervasive Wireless Healthcare*. p. 33-38 6 p.

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

**Novel approaches to crawling important pages early**

Alam, M. H., Ha, J. W. & Lee, S. K., 2012, In : *Knowledge and Information Systems*. 33, 3, p. 707-734 28 p.

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

**On the definition of dynamic software measures**

Lavazza, L., Morasca, S., Taibi, D. & Tosi, D., 2012, In : *International Symposium on Empirical Software Engineering and Measurement*. p. 39-48 10 p.

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

**Parameterized scheduling for signal processing systems using topological patterns**

Wu, S., Shen, C. C., Sane, N., Davis, K. & Bhattacharyya, S. S., 2012, *2012 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2012 - Proceedings*. p. 1561-1564 4 p. 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, M. K., Elmusrati, M. & Virrankoski, R., 2012, *2012 IEEE 8th International Conference on Wireless and Mobile Computing, Networking and Communications, WiMob 2012*. p. 496-501 6 p. 6379119

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

**SenSprout: Inkjet-printed soil moisture and leaf wetness sensor**

Kawahara, Y., Lee, H. & Tentzeris, M. M., 2012, *UbiComp'12 - Proceedings of the 2012 ACM Conference on Ubiquitous Computing*. p. 545 1 p.

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, A. A., Rajput, N., Rudnicki, A. I., Turunen, M., Sandholm, T., Munteanu, C. & Penn, G., 2012, *MobileHCI'12 - Companion Proceedings of the 14th International Conference on Human Computer Interaction with Mobile Devices and Services*. p. 251-253 3 p.

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, Z., Shen, C. C., Plishker, W., Wu, H. H. & Bhattacharyya, S. S., 2012, *ICSP 2012 - 2012 11th International Conference on Signal Processing, Proceedings*. Vol. 1. p. 402-408 7 p. 6491686

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

**Barriers to task-based information access in molecular medicine**

Kumpulainen, S. & Järvelin, K., Jan 2012, In : *JOURNAL OF THE ASSOCIATION FOR INFORMATION SCIENCE AND TECHNOLOGY*. 63, 1, p. 86-97 12 p.

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

**SymbolChat: A flexible picture-based communication platform for users with intellectual disabilities**

Keskinen, T., Heimonen, T., Turunen, M., Rajaniemi, J. P. & Kauppinen, S., Sep 2012, In : *Interacting with Computers*. 24, 5, p. 374-386 13 p.

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

**Elastic image registration for guiding focal laser ablation of prostate cancer: Preliminary results**

Makni, N., Puech, P., Colin, P., Azzouzi, A., Mordon, S. & Betrouni, N., Oct 2012, In : *Computer Methods and Programs in Biomedicine*. 108, 1, p. 213-223 11 p.

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

### **Focused multi-task learning in a Gaussian process framework**

Leen, G., Peltonen, J. & Kaski, S., Oct 2012, In : Machine Learning. 89, 1-2, p. 157-182 26 p.

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

### **'Aie-studio' - A pragmatist aesthetic approach for procedural sound design**

Luhtala, M., Turunen, M., Hakulinen, J. & Keskinen, T., 2013, *Proceedings of the 8th Audio Mostly: A Conference on Interaction with Sound, AM 2013 - In Cooperation with ACM SIGCHI*. Association for Computing Machinery, 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, V., Komar, M. & Koucheryavy, Y., 2013, *Proceedings of the 2013 21st IEEE International Conference on Network Protocols, ICNP 2013*. IEEE COMPUTER SOCIETY PRESS, 6733633

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

### **A movable immaterial volumetric display**

Rakkolainen, I. & Sand, A., 2013, *SIGGRAPH Asia 2013 Posters, SA 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, J., Marttila-Kontio, M. & Nummenmaa, T., 2013, *13th Symposium on Programming Languages and Software Tools, SPLST 2013 - Proceedings*. University of Szeged, p. 245-258 14 p.

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

### **Dynamic action recognition based on dynemes and Extreme Learning Machine**

Iosifidis, A., Tefas, A. & Pitas, I., 2013, In : Pattern Recognition Letters. 34, 15, p. 1890-1898 9 p.

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, Y., Kangas, J., Holm, J. & Grassel, G., 2013, *CHI 2013: Changing Perspectives, Conference Proceedings - The 31st Annual CHI Conference on Human Factors in Computing Systems*. p. 981-990 10 p.

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**

Fuccella, V., Isokoski, P. & Martin, B., 2013, *CHI 2013: Changing Perspectives, Conference Proceedings - The 31st Annual CHI Conference on Human Factors in Computing Systems*. p. 2785-2794 10 p.

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

### **Guest editorial**

Ellervee, P. & Nurmi, J., 2013, In : Microprocessors and Microsystems. 37, 4-5, p. 430-431 2 p.

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

### **How to study programming on mobile touch devices - Interactive Python code exercises**

Ihantola, P., Helminen, J. & Karavirta, V., 2013, *Proceedings - 13th Koli Calling International Conference on Computing Education Research, Koli Calling 2013*. p. 51-58 8 p.

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

### **Information retrieval perspective to meta-visualization**

Peltonen, J. & Lin, Z., 2013, In : Journal of Machine Learning Research. 29, p. 165-180 16 p.

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

### **Long-term tracking through failure cases**

Lebeda, K., Hadfield, S., Matas, J. & Bowden, R., 2013, *Proceedings - 2013 IEEE International Conference on Computer Vision Workshops, ICCVW 2013*. Institute of Electrical and Electronics Engineers Inc., p. 153-160 8 p. 6755891

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

#### **Mixed reality with multimodal head-mounted pico projector**

Sand, A. & Rakkolainen, I., 2013, *Proceedings of the Virtual Reality International Conference on Laval Virtual, VRIC 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, A., Tefas, A. & Pitas, I., 2013, In : *IEEE Transactions on Neural Networks and Learning Systems*. 24, 9, p. 1491-1497 7 p.

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

#### **Power harvesting from microwave oven electromagnetic leakage**

Kawahara, Y., Bian, X., Shigeta, R., Vyas, R., Tentzeris, M. M. & Asami, T., 2013, *UbiComp 2013 - Proceedings of the 2013 ACM International Joint Conference on Pervasive and Ubiquitous Computing*. p. 373-381 9 p.

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

#### **Reading on-screen text with gaze-based auto-scrolling**

Sharmin, S., Špakov, O. & Rähkä, K. J., 2013, *Proceedings of the 2013 Conference on Eye Tracking South Africa, ETSA 2013*. p. 24-31 8 p.

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

#### **Recording and analyzing in-browser programming sessions**

Helminen, J., Ihantola, P. & Karavirta, V., 2013, *Proceedings - 13th Koli Calling International Conference on Computing Education Research, Koli Calling 2013*. p. 13-22 10 p.

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, A. A., Rajput, N., Srivastava, S., Erkut, C., Jylhä, A., Rudnicky, A. I., Serafin, S. & Turunen, M., 2013, *MobileHCI 2013 - Proceedings of the 15th International Conference on Human-Computer Interaction with Mobile Devices and Services*. p. 626-629 4 p.

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

#### **The visual object tracking VOT2013 challenge results**

Kristan, M., Pflugfelder, R., Leonardis, A., Matas, J., Porikli, F., Čehovin, L., Nebehay, G., Fernandez, G., Vojří, T., Gatt, A., Khajenezhad, A., Salahledin, A., Soltani-Farani, A., Zarezade, A., Petrosino, A., Milton, A., Bozorgtabar, B., Li, B., Chan, C. S., Heng, C., Ward, D., Kearney, D., Monekosso, D., Karaimer, H. C., Rabiee, H. R., Zhu, J., Gao, J., Xiao, J., Zhang, J., Xing, J., Huang, K., Lebeda, K., Cao, L., Maresca, M. E., Lim, M. K., ELHelw, M., Felsberg, M., Remagnino, P., Bowden, R., Goecke, R., Stolkin, R., Lim, S. Y. Y., Maher, S., Poullot, S., Wong, S., Satoh, SI., Chen, W., Hu, W., Zhang, X., Li, Y. & Niu, Z., 2013, *Proceedings - 2013 IEEE International Conference on Computer Vision Workshops, ICCVW 2013*. Institute of Electrical and Electronics Engineers Inc., p. 98-111 14 p. 6755885

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

#### **Touch gestures in communicating emotional intention via vibrotactile stimulation**

Rantala, J., Salminen, K., Raisamo, R. & Surakka, V., 2013, In : *International Journal of Human-Computer Studies*. 71, 6, p. 679-690 12 p.

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

#### **High-performance and low-energy buffer mapping method for multiprocessor DSP systems**

Lee, D., Wolf, M. & Bhattacharyya, S. S., Mar 2013, In : *ACM Transactions on Embedded Computing Systems*. 12, 3, 82.

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

#### **Indirect measurement of the vascular endothelial glycocalyx layer thickness in human submucosal capillaries with a plug-in for ImageJ**

Liuhanen, S., Sallisalmi, M., Pettilä, V., Oksala, N. & Tenhunen, J., Apr 2013, In : *Computer Methods and Programs in Biomedicine*. 110, 1, p. 38-47 10 p.

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

### **An evaluation of the virtual curvature with the StickGrip haptic device: A case study**

Evreinova, T. V., Evreinov, G. & Raisamo, R., Jun 2013, In : *Universal Access in the Information Society*. 12, 2, p. 161-173 13 p.

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

### **Multi-view action recognition based on action volumes, fuzzy distances and cluster discriminant analysis**

Iosifidis, A., Tefas, A. & Pitas, I., Jun 2013, In : *Signal Processing*. 93, 6, p. 1445-1457 13 p.

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

### **Configurable, resource-optimized FFT architecture for OFDM communication**

Cho, I., Shen, C. C., Tachwali, Y., Hsu, C. J. & Bhattacharyya, S. S., 18 Oct 2013, *2013 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2013 - Proceedings*. p. 2746-2750 5 p. 6638156

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

### **Programmable lowpower implementation of the HEVC Adaptive Loop Filter**

Hautala, I., Boutellier, J. & Hannuksela, J., 18 Oct 2013, *2013 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2013 - Proceedings*. p. 2664-2668 5 p. 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, H., Boutellier, J., Raulet, M. & Casseau, E., Nov 2013, In : *Signal Processing: Image Communication*. 28, 10, p. 1295-1302 8 p.

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

### **Controlled experiments comparing fault-tree-based safety analysis techniques**

Mouaffo, A., Taibi, D. & Jamboti, K., 2014, *18th International Conference on Evaluation and Assessment in Software Engineering, EASE 2014*. Association for Computing Machinery (ACM), a46

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

### **Data-driven stream mining systems for computer vision**

Bhattacharyya, S. S., Van Der Schaar, M., Atan, O., Tekin, C. & Sudusinghe, K., 2014, *Advances in Computer Vision and Pattern Recognition*. SPRINGER-VERLAG LONDON LTD, Vol. 68. p. 249-264 16 p. (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, J., Akkil, D., Rantala, J., Isokoski, P., Majaranta, P. & Raisamo, R., 2014, *CHI 2014: One of a CHIInd - Conference Proceedings, 32nd Annual ACM Conference on Human Factors in Computing Systems*. Association for Computing Machinery, p. 435-438 4 p.

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

### **Glasses with haptic feedback of gaze gestures**

Rantala, J., Isokoski, P., Kangas, J., Raisamo, R. & Akkil, D., 2014, *CHI EA 2014: One of a ChiNd - Extended Abstracts, 32nd Annual ACM Conference on Human Factors in Computing Systems*. Association for Computing Machinery, p. 1597-1602 6 p.

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

### **Head movement and facial expressions as game input**

Ilves, M., Gizatdinova, Y., Surakka, V. & Vankka, E., 2014, In : *Entertainment Computing*. 5, 3, p. 147-156 10 p.

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

### **IntentRadar: Search user interface that anticipates user's search intents**

Ruotsalo, T., Peltonen, J., Eugster, M. J. A., Glowacka, D., Reijonen, A., Jacucci, G., Myllymäki, P. & Kaski, S., 2014, *CHI EA 2014: One of a ChiNd - Extended Abstracts, 32nd Annual ACM Conference on Human Factors in Computing Systems*. Association for Computing Machinery, p. 455-458 4 p.



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

#### **Layers of user expectations of future technologies: An early framework**

Olsson, T., 2014, *CHI EA 2014: One of a ChiNd - Extended Abstracts, 32nd Annual ACM Conference on Human Factors in Computing Systems*. Association for Computing Machinery, p. 1957-1962 6 p.

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

#### **Low-Power Reconfigurable Miniature Sensor Nodes for Condition Monitoring**

Nyländén, T., Boutellier, J., Nikunen, K., Hannuksela, J. & Silvén, O., 2014, In : *International Journal of Parallel Programming*. 43, 1, p. 3-23 21 p.

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

#### **Minimum Variance Extreme Learning Machine for human action recognition**

Iosifidis, A., Tefas, A. & Pitas, I., 2014, *ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings*. The Institute of Electrical and Electronics Engineers, Inc., p. 5427-5431 5 p. 6854640

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

#### **Models for mobile application maintenance based on update history**

Li, X., Zhang, Z. & Nummenmaa, J., 2014, *ENASE 2014 - Proceedings of the 9th International Conference on Evaluation of Novel Approaches to Software Engineering*. SCITEPRESS, p. 212-217 6 p.

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, P., Samiee, K. & Gabbouj, M., 2014, *2014 IEEE International Conference on Acoustics, Speech and Signal processing (ICASSP), May 4-9 2014, Florence, Italy*. Piscataway: IEEE, p. 5839-5843 5 p. 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, P., Olsson, T., Ojala, J. & Väänänen-Vainio-Mattila, K., 2014, *Proceedings of the 13th International Conference on Mobile and Ubiquitous Multimedia, MUM2014, November 25-28, 2014, Melbourne, Australia*. New York, NY: ACM, p. 89-97 9 p. (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, K., Järvisalo, M., Berg, J., Myllymäki, P., Peltonen, J. & Kaski, S., 2014, *Proceedings of the National Conference on Artificial Intelligence*. AI Access Foundation, Vol. 3. p. 1694-1700 7 p.

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

#### **Optimization equivalence of divergences improves neighbor embedding**

Yang, Z., Peltonen, J. & Kaski, S., 2014, *31st International Conference on Machine Learning, ICML 2014*. International Machine Learning Society (IMLS), Vol. 2. p. 1808-1839 32 p.

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

#### **Software architectures for implementing achievement badges - Practical experiences**

Haaranen, L., Hakulinen, L., Ihantola, P. & Korhonen, A., 2014, *Proceedings - 2014 International Conference on Teaching and Learning in Computing and Engineering, LATICE 2014*. IEEE COMPUTER SOCIETY PRESS, p. 41-46 6 p. 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, J., Guevorkian, D., Jeschke, H. & Sima, M., 2014, In : *International Journal of Parallel Programming*. 43, 1

Research output: Contribution to journal › Special issue › Scientific › peer-review

#### **The usability of text entry systems now and in the future**

Clawson, J., Isokoski, P., Brewster, S., Oulasvirta, A., Dunlop, M., Vertanen, K., Kristensson, P. O. & Waller, A., 2014, *CHI EA 2014: One of a ChiNd - Extended Abstracts, 32nd Annual ACM Conference on Human Factors in Computing Systems*. Association for Computing Machinery, p. 1139-1142 4 p.

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, N., Michalas, A. & Gehrmann, C., 1 Jan 2014, *SCC 2014 - Proceedings of the 2nd International Workshop on Security in Cloud Computing*. Association for Computing Machinery, p. 35-42 8 p.

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**

Michalas, A. & Komninos, N., 1 Jan 2014, *2014 IEEE Symposium on Computers and Communications, ISCC 2014 - Proceedings*. Institute of Electrical and Electronics Engineers Inc., 6912480

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

#### **Symbol diversification of linux binaries**

Lauren, S., Maki, P., Rauti, S., Hosseinzadeh, S., Hyrynsalmi, S. & Leppanen, V., 30 Jan 2014, *2014 World Congress on Internet Security, WorldCIS 2014*. Institute of Electrical and Electronics Engineers Inc., p. 74-79 6 p.

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, A., Evreinov, G., Raisamo, R., Mäkinen, E., Nukarinen, T. & Majeed, A. A., 2 Feb 2014, *ICOSST 2014 - 2014 International Conference on Open Source Systems and Technologies, Proceedings*. Institute of Electrical and Electronics Engineers Inc., p. 32-42 11 p. 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, A., Evreinov, G., Raisamo, R. & Majeed, A. A., 2 Feb 2014, *ICOSST 2014 - 2014 International Conference on Open Source Systems and Technologies, Proceedings*. Institute of Electrical and Electronics Engineers Inc., p. 25-31 7 p. 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, M., Emmert-Streib, F. & Grabner, M., 1 Mar 2014, In : *Information Sciences*. 260, p. 200-208 9 p.

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

#### **System integration for real-time mobile manipulation**

Oftadeh, R., Aref, M. M., Ghabcheloo, R. & Mattila, J., 28 Mar 2014, In : *International Journal of Advanced Robotic Systems*. 11, 1, 51.

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, J., Hottinen, A. & Peltonen, J., Apr 2014, In : *IEEE Transactions on Mobile Computing*. 13, 4, p. 866-879 14 p., 6482133.

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

#### **Prediction models and techniques for Open Source Software projects: A systematic literature review**

Syed, M. M. M., Hammouda, I. & Systä, T., 1 Apr 2014, In : *International Journal of Open Source Software and Processes*. 5, 2, p. 1-39 39 p.

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

#### **Patterns for controlling chaos in a startup**

Eloranta, V-P., 10 Apr 2014, *VikingPLoP 2014 Proceedings of the 8th Nordic Conference on Pattern Languages of Programs*. Association for Computing Machinery, Vol. 2014-April. p. 1-8 8 p. (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, M., 10 Apr 2014, *VikingPLoP 2014 Proceedings of the 8th Nordic Conference on Pattern Languages of Programs (VikingPLoP)*. ACM, 4

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

### **Estimating software development effort based on phases**

Lenarduzzi, V., Morasca, S. & Taibi, D., 17 Oct 2014, *Proceedings - 40th Euromicro Conference Series on Software Engineering and Advanced Applications, SEAA 2014*. Institute of Electrical and Electronics Engineers Inc., p. 305-308 4 p.

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

### **Process configuration framework tool**

Diebold, P., Dieudonne, L. & Taibi, D., 17 Oct 2014, *Proceedings - 40th Euromicro Conference Series on Software Engineering and Advanced Applications, SEAA 2014*. Institute of Electrical and Electronics Engineers Inc., p. 389-390 2 p.

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, T., Raisamo, R., Farooq, A., Evreinov, G. & Surakka, V., 26 Oct 2014, *Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational*. Association for Computing Machinery, Inc, p. 61-64 4 p.

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

### **Effects of haptic feedback on gaze based auto scrolling**

Käki, K., Špakov, O., Majaranta, P. & Kangas, J., 26 Oct 2014, *Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational*. Association for Computing Machinery, Inc, p. 947-950 4 p.

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

### **Gaze-contingent scrolling and reading patterns**

Räihä, K. J. & Sharmin, S., 26 Oct 2014, *Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational*. Association for Computing Machinery, Inc, p. 65-68 4 p.

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, A., Parviainen, J., Tuuri, K., Turunen, M. & Heimonen, T., 26 Oct 2014, *Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational*. Association for Computing Machinery, Inc, p. 841-844 4 p.

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

### **Seniors and text messaging on mobile touchscreen phones**

Övermark, R., Isokoski, P. & Ovaska, S., 26 Oct 2014, *Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational*. Association for Computing Machinery, Inc, p. 967-970 4 p.

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

### **The fuzzy front end of experience design**

Kaasinen, E., Väättäjä, H., Karvonen, H. & Lu, Y., 26 Oct 2014, *Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational*. New York, NY: ACM, p. 797-800 4 p. (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, J., Akkil, D., Rantala, J., Isokoski, P., Majaranta, P. & Raisamo, R., 26 Oct 2014, *Proceedings of the NordiCHI 2014: The 8th Nordic Conference on Human-Computer Interaction: Fun, Fast, Foundational*. Association for Computing Machinery, Inc, p. 1047-1050 4 p.

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

### **Discriminant Bag of Words based representation for human action recognition**

Iosifidis, A., Tefas, A. & Pitas, I., 1 Nov 2014, In : *Pattern Recognition Letters*. 49, p. 185-192 8 p.

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

#### **Kernel reference discriminant analysis**

Iosifidis, A., Tefas, A. & Pitas, I., 1 Nov 2014, In : Pattern Recognition Letters. 49, p. 85-91 7 p.

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

#### **Body-touching: An embodied interaction technique for health information systems in developing regions**

Sharma, S., Srivastava, S., Sorathia, K., Hakulinen, J., Heimonen, T., Turunen, M. & Rajput, N., 4 Nov 2014, *MINDTREK 2014 - Proceedings of the 18th International Academic MindTrek Conference: "Media Business, Management, Content and Services"*. Association for Computing Machinery, Inc, p. 49-56 8 p.

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

#### **DYNAMO sound engine - Exploring the aesthetics of dynamic sound interactions**

Luhtala, M., Heimonen, T., Mäkelä, V., Keskinen, T., Turunen, M. & Saarinen, S., 4 Nov 2014, *MINDTREK 2014 - Proceedings of the 18th International Academic MindTrek Conference: "Media Business, Management, Content and Services"*. Association for Computing Machinery, Inc, p. 159-166 8 p.

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, H., Okkonen, J. & Savolainen, R., 4 Nov 2014, *MINDTREK 2014 - Proceedings of the 18th International Academic MindTrek Conference: "Media Business, Management, Content and Services"*. Association for Computing Machinery, Inc, p. 19-22 4 p.

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

#### **Games and energy: Profiling power usage during play**

Salmela, J. M., Thanisch, P., Sotamaa, O. & Niemi, T., 4 Nov 2014, *MINDTREK 2014 - Proceedings of the 18th International Academic MindTrek Conference: "Media Business, Management, Content and Services"*. Association for Computing Machinery, Inc, p. 192-199 8 p.

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

#### **MurMur Moderators, the talking playful seats**

Nummenmaa, T., Kultima, A., Tyni, H. & Alha, K., 4 Nov 2014, *MINDTREK 2014 - Proceedings of the 18th International Academic MindTrek Conference: "Media Business, Management, Content and Services"*. Association for Computing Machinery, Inc, p. 231-237 7 p.

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, A., Nummenmaa, T., Tyni, H., Alha, K. & Mayra, F., 11 Nov 2014, *ACE 2014 - 11th Advances in Computer Entertainment Technology Conference, Workshops Proceedings*. Association for Computing Machinery, Vol. 11-14-November-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, V., Heimonen, T., Luhtala, M. & Turunen, M., 11 Nov 2014, *ACE 2014 - 11th Advances in Computer Entertainment Technology Conference, Proceedings*. Association for Computing Machinery, Vol. 2014-November. p. 228-231 4 p.

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, T., Hakulinen, J., Turunen, M., Heimonen, T., Sand, A., Paavilainen, J., Parviainen, J., Yrjänäinen, S., Mäyrä, F., Okkonen, J. & Raisamo, R., 1 Dec 2014, In : Entertainment Computing. 5, 4, p. 475-484 10 p.

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., 2015, In : Automatic Control and Computer Sciences. 48, 6, p. 345-357 13 p.

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, S. & Nurkka, P., 2015, In : International Journal of Web Based Communities. 11, 2, p. 153-169 17 p.

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

**Designing an Unobtrusive Analytics Framework for Monitoring Java Applications**

Suonsyrjä, S. & Mikkonen, T., 2015, *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*. Kobyliński, A., Czarnacka-Chrobot, B. & Świerczek, J. (eds.). Springer International Publishing, Vol. 230. p. 160-175 16 p. (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, P. & Nikunen, J., 2015, In : Speech Communication. 68, p. 97-106 10 p.

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

**Dynamic text presentation in print interpreting - An eye movement study of reading behaviour**

Sharmin, S., Špakov, O. & Rähä, K. J., 2015, In : International Journal of Human-Computer Studies. 78, p. 17-30 14 p.

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

**Majorization-minimization for manifold embedding**

Yang, Z., Peltonen, J. & Kaski, S., 2015, In : Journal of Machine Learning Research. 38, p. 1088-1097 10 p.

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

**On constructibility and unconstructibility of LTS operators from other LTS operators**

Valmari, A., 2015, In : Acta Informatica. 52, 2-3, p. 207-234 28 p.

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

**Quality measures for improving technology trees**

Heinimäki, T. J. & Elomaa, T., 2015, In : International Journal of Computer Games Technology. 2015, 10 p., 975371.

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, A., Jung, J., Cagnazzo, M., Pesquet, B., Dufaux, F., Kovács, P. & Adhikarla, V. K., 2015, In : Signal Processing: Image Communication. 39, Part B, p. 369–385

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

**Image database TID2013: Peculiarities, results and perspectives**

Ponomarenko, N., Jin, L., Ieremeiev, O., Lukin, V., Egiazarian, K., Astola, J., Vozel, B., Chehdi, K., Carli, M., Battisti, F. & Jay Kuo, C. C., 1 Jan 2015, In : Signal Processing: Image Communication. 30, p. 57-77 21 p.

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

**PaaSword: A holistic data privacy and security by design framework for cloud services**

Verginadis, Y., Michalas, A., Gouvas, P., Schiefer, G., Hübsch, G. & Paraskakis, I., 1 Jan 2015, *CLOSER 2015 - 5th International Conference on Cloud Computing and Services Science, Proceedings*. SCITEPRESS, p. 206-213 8 p.

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

**Social behavior in bacterial nanonetworks: Challenges and opportunities**

Hasan, M., Hossain, E., Balasubramaniam, S. & Koucheryavy, Y., 1 Jan 2015, In : IEEE Network. 29, 1, p. 26-34 9 p., 7018200.

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

**Classification of iPSC colony images using hierarchical strategies with support vector machines**

Joutsijoki, H., Rasku, J., Haponen, M., Baldin, I., Gizatdinova, Y., Paci, M., Saarikoski, J., Varpa, K., Siirtola, H., Ávalos-Salguero, J., Iltanen, K., Laurikkala, J., Penttinen, K., Hyttinen, J., Aalto-Setälä, K. & Juhola, M., 13 Jan 2015, *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., p. 86-

92 7 p. 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, M., Oftadeh, R., Ghabcheloo, R. & Mattila, J., 29 Jan 2015, In : international Journal of Advanced Robotic Systems. 12, 4

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, P., Hannuksela, M. M. & Gabbouj, M., 5 Feb 2015, *2014 IEEE International Symposium on Multimedia, ISM 2014, 10-12 Dec. 2014, Taichung*. The Institute of Electrical and Electronics Engineers, Inc., p. 267-270 4 p.

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

#### **Salient event detection in basketball mobile videos**

Cricri, F., Mate, S., Curcio, I. D. D. & Gabbouj, M., 5 Feb 2015, *Proceedings - 2014 IEEE International Symposium on Multimedia, ISM 2014*. The Institute of Electrical and Electronics Engineers, Inc., p. 63-70 8 p. 7032995

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

#### **LTE indoor MIMO performances field measurements**

Nguyen-Thanh, D., Le-Tien, T., Bui-Thu, C. & Le-Thanh, T., 17 Feb 2015, *International Conference on Advanced Technologies for Communications*. IEEE, p. 84-89 6 p.

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

#### **On the kernel Extreme Learning Machine classifier**

Iosifidis, A., Tefas, A. & Pitas, I., 1 Mar 2015, In : Pattern Recognition Letters. 54, p. 11-17 7 p.

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

#### **The highways and country roads to continuous deployment**

Leppänen, M., Mäkinen, S., Pagels, M., Eloranta, V-P., Itkonen, J., Mäntylä, M. V. & Männistö, T., 1 Mar 2015, In : IEEE Software. 32, 2, p. 64-72 9 p.

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. & Lyroudia, K., 1 Mar 2015, In : Journal of Information Hiding and Multimedia Signal Processing. 6, 2, p. 254-273 20 p.

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

#### **Intentstreams: Smart parallel search streams for branching exploratory search**

Andolina, S., Klouche, K., Peltonen, J., Hoque, M., Ruotsalo, T., Cabral, D., Klami, A., Glowacka, D., Floréen, P. & Jacucci, G., 18 Mar 2015, *IUI 2015 - Proceedings of the 20th ACM International Conference on Intelligent User Interfaces*. Association for Computing Machinery, Vol. 2015-January. p. 300-305 6 p.

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

#### **Glance awareness and gaze interaction in smartwatches**

Akkil, D., Kangas, J., Rantala, J., Isokoski, P., Špakov, O. & Raisamo, R., 18 Apr 2015, *CHI 2015 - Extended Abstracts Publication of the 33rd Annual CHI Conference on Human Factors in Computing Systems: Crossings*. Association for Computing Machinery, Vol. 18. p. 1271-1276 6 p.

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

#### **Information retrieval approach to meta-visualization**

Peltonen, J. & Lin, Z., 1 May 2015, In : Machine Learning. 99, 2, p. 189-229 41 p.

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

#### **A comparison of security assurance support of agile software development methods**

Rindell, K., Hyrynsalmi, S. & Leppänen, V., 25 Jun 2015, *Computer Systems and Technologies - 16th International Conference, CompSysTech 2015: Proceedings*. Association for Computing Machinery, Vol. 1008. p. 61-68 8 p.

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, R., Ghabcheloo, R. & Mattila, J., 29 Jun 2015, *2015 IEEE International Conference on Robotics and Automation (ICRA), 26-30 May 2015, Seattle, WA*. Institute of Electrical and Electronics Engineers IEEE, p. 676-683 8 p.

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

#### **Collaborative cloud-based management of home networks**

Silverajan, B., Luoma, J-P., Vajaranta, M. & Itäpuro, R., 29 Jun 2015, *Proceedings of the 2015 IFIP/IEEE International Symposium on Integrated Network Management, IM 2015*. IEEE, p. 786-789 4 p.

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, P., Wangyang, P., Li, H., Wang, Q. & Kallio, P., 29 Jun 2015, *2015 IEEE International Conference on Robotics and Automation (ICRA), 26-30 May 2015, Seattle, WA*. p. 2679-2684 6 p.

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, J., Honkakorpi, J., Mattila, J. & Visa, A., 29 Jun 2015, *2015 IEEE International Conference on Robotics and Automation (ICRA)*. Institute of Electrical and Electronics Engineers IEEE, p. 809-814 6 p.

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, M. & Ritala, R., 29 Jun 2015, *2015 IEEE International Conference on Robotics and Automation (ICRA), 26-30 May 2015, Seattle, WA*. Vol. 2015-June. p. 4807-4812 6 p.

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

#### **Railway fastener inspection by real-time machine vision**

Aytekin, C., Rezaeitabar, Y., Dogru, S. & Ulusoy, I., 1 Jul 2015, In : *IEEE Transactions on Systems, Man, and Cybernetics: Systems*. 45, 7, p. 1101-1107 7 p.

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

#### **Four patterns for internal startups**

Leppänen, M. & Hokkanen, L., 8 Jul 2015, *Proceedings of the 20th European Conference on Pattern Languages of Programs, EuroPLoP 2015*. ACM, a5

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

#### **Three patterns for user involvement in startups**

Hokkanen, L. & Leppänen, M., 8 Jul 2015, *Proceedings of the 20th European Conference on Pattern Languages of Programs, EuroPLoP 2015*. ACM, a51

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

#### **Mashing Up Software Issue Management, Development, and Usage Data**

Mattila, A-L., Lehtonen, T., Terho, H., Mikkonen, T. & Systä, K., 24 Jul 2015, *2015 IEEE/ACM 2nd International Workshop on Rapid Continuous Software Engineering (RCoSE)*. The Institute of Electrical and Electronics Engineers, Inc., p. 26-29 4 p.

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, J., Hyrynsalmi, S. & Leppänen, V., 31 Jul 2015, *Proceedings - 2nd International Workshop on Software Architecture and Metrics, SAM 2015*. Institute of Electrical and Electronics Engineers Inc., p. 41-47 7 p.

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, J. & Kallio, P., 1 Aug 2015, In : *IET Computer Vision*. 9, 4, p. 588-594 7 p.

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

#### **Collaborative filtering based on group coordinates for smoothing and directional sharpening**

Azzari, L. & Foi, A., 4 Aug 2015, *ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings*. IEEE, p. 1573-1577 5 p.

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

#### **Enhancing class discrimination in Kernel Discriminant Analysis**

Iosifidis, A., Tefas, A. & Pitas, I., 4 Aug 2015, *ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings*. The Institute of Electrical and Electronics Engineers, Inc., p. 1926-1930 5 p. 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, D., Gemmeke, J. F., Virtanen, T. & Van Hamme, H., 4 Aug 2015, *ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings*. The Institute of Electrical and Electronics Engineers, Inc., p. 4485-4489 5 p.

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, V., Iosifidis, A., Tefas, A. & Pitas, I., 4 Aug 2015, *ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings*. The Institute of Electrical and Electronics Engineers, Inc., Vol. 2015-August. p. 2259-2263 5 p.

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

#### **Low-complexity robust DOA estimation**

Dumitrescu, B., Rusu, C., Tabus, I. & Astola, J., 4 Aug 2015, *ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings*. The Institute of Electrical and Electronics Engineers, Inc., p. 2794-2798 5 p.

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, T., Virtanen, T. & Pontoppidan, N. H., 4 Aug 2015, *2015 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. IEEE, p. 241-245 5 p.

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

#### **Similarity induced group sparsity for non-negative matrix factorisation**

Hurmalainen, A., Saeidi, R. & Virtanen, T., 4 Aug 2015, *ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings*. The Institute of Electrical and Electronics Engineers, Inc., p. 4425-4429 5 p.

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

#### **Scinet: Interactive intent modeling for information discovery**

Ruotsalo, T., Peltonen, J., Eugster, M. J. A., Glowacka, D., Reijonen, A., Jacucci, G., Myllymäki, P. & Kaski, S., 9 Aug 2015, *SIGIR 2015 - Proceedings of the 38th International ACM SIGIR Conference on Research and Development in Information Retrieval*. Association for Computing Machinery, Inc, p. 1043-1044 2 p.

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., 24 Aug 2015, *MobileHCI 2015 - Proceedings of the 17th International Conference on Human-Computer Interaction with Mobile Devices and Services Adjunct*. Association for Computing Machinery, Inc, p. 1187-1190 4 p.

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

#### **Software evolution and time series volatility: An empirical exploration**

Ruohonen, J., Hyrynsalmi, S. & Leppänen, V., 30 Aug 2015, *14th International Workshop on Principles of Software Evolution, IWPSE 2015 - Proceedings*. Institute of Electrical and Electronics Engineers Inc., Vol. 30-Aug-2015. p. 56-65 10 p.

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



### **Augmenting Technology Trees: Automation and Tool Support**

Heinimäki, T. J. & Elomaa, T., Sep 2015, *Proceedings of the Seventh International Conference on Virtual Worlds and Games for Serious Applications (VS-Games 2015)*. IEEE, p. 68-75 8 p.

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, J., Kangas, J., Isokoski, P., Akkil, D., Špakov, O. & Raisamo, R., 7 Sep 2015, *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, p. 855-862 8 p.

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

### **Antroposeeni - A mixed reality game**

Luhtala, M., Karvonen, T., Pylväs, J., Ala-Kokko, A., Magica, R., Takeda, Y. & Turunen, M., 22 Sep 2015, *ACADEMICMINDTREK 2015 - Proceedings of the 19th International Academic Mindtrek Conference*. Association for Computing Machinery, Inc, p. 211-213 3 p.

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

### **OASIS deck of cards - House of colleagues: A playful**

Nummenmaa, T., Kultima, A., Kankainen, V., Savolainen, S., Syvänen, A., Alha, K. & Mäyrä, F., 22 Sep 2015, *ACADEMICMINDTREK 2015 - Proceedings of the 19th International Academic Mindtrek Conference*. Association for Computing Machinery, Inc, p. 2-9 8 p.

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

### **Model selection for linear classifiers using Bayesian error estimation**

Huttunen, H. & Tohka, J., Nov 2015, In : *Pattern Recognition*. 48, 11, p. 3739-3748 10 p.

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

### **Sparse extreme learning machine classifier exploiting intrinsic graphs**

Iosifidis, A., Tefas, A. & Pitas, I., 1 Nov 2015, In : *Pattern Recognition Letters*. 65, p. 192-196 5 p.

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

### **Executing dataflow actors as kahn processes**

Tretter, A., Boutellier, J., Guthrie, J., Schor, L. & Thiele, L., 4 Nov 2015, *2015 Proceedings of the International Conference on Embedded Software, EMSOFT 2015*. Institute of Electrical and Electronics Engineers Inc., p. 105-114 10 p. 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, P., Heimonen, T., Turunen, M., Hakulinen, J., Keskinen, T., Pihkala-Posti, L., Okkonen, J. & Raisamo, R., 13 Nov 2015, *Proceedings - VRST 2015: 21st ACM Symposium on Virtual Reality Software and Technology*. Association for Computing Machinery, Vol. 13-15-November-2015. p. 173-182 10 p.

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, T., Tyni, H., Kultima, A., Alha, K. & Holopainen, J., 16 Nov 2015, *ACE 2015 - 12th Advances in Computer Entertainment Technology Conference, Proceedings*. Association for Computing Machinery, Vol. 16-19-November-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, S., Markopoulos, P. & Hannuksela, M. M., 16 Nov 2015, *ACE 2015 - 12th Advances in Computer Entertainment Technology Conference, Proceedings*. ACM, 13

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

#### **Time series trends in software evolution**

Ruohonen, J., Hyrynsalmi, S. & Leppänen, V., 1 Dec 2015, In : Journal of Software: Evolution and Process. 27, 12, p. 990-1015 26 p.

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

#### **A State Space Tool for Concurrent System Models Expressed In C++**

Valmari, A., 14 Dec 2015, *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*.

Nummenmaa, J., Sievi-Korte, O. & Mäkinen, E. (eds.). CEUR-WS.org, Vol. 1525. p. 91-105 15 p. 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, E. & Kämäräinen, J-K., 15 Dec 2015, In : Pattern Recognition Letters. 68, P1, p. 1-8 8 p.

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, R., Mitsiades, C., Williamson, K. E. & Emmert-Streib, F., 16 Dec 2015, *2015 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*. IEEE, p. 1216-1223 8 p.

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, M., Heijen, G., Moltchanov, D. & Koucheryavy, Y., 2016, In : Ad Hoc Networks. 37, p. 63-75 13 p.

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

#### **Collecting usage data for software development: Selection framework for technological approaches**

Suonsyrjä, S., Systä, K., Mikkonen, T. & Terho, H., 2016, *Proceedings - SEKE 2016: 28th International Conference on Software Engineering and Knowledge Engineering*. Knowledge Systems Institute Graduate School, p. 114-119 6 p.

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, J., Moradi, E., Huttunen, H., Alzheimer's Disease Neuroimaging Initiative & Alzheimer's Disease Neuroimaging Initiative 2, 2016, In : Neuroinformatics. 14, 3, p. 279-296 18 p.

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

#### **Dominant Rotated Local Binary Patterns (DRLBP) for texture classification**

Mehta, R. & Egiazarian, K., 2016, In : Pattern Recognition Letters. 71, p. 16-22 7 p.

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

#### **Foveated Nonlocal Self-Similarity**

Foi, A. & Boracchi, G., 2016, In : International Journal of Computer Vision. 120, 1, p. 78-110 33 p.

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

#### **Graph Embedded Extreme Learning Machine**

Iosifidis, A., Tefas, A. & Pitas, I., 2016, In : IEEE Transactions on Cybernetics. 46, 1, p. 311 - 324

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

#### **Gravity gradient routing for information delivery in fog Wireless Sensor Networks**

Ivanov, S., Balasubramaniam, S., Botvich, D. & Akan, O. B., 2016, In : Ad Hoc Networks. 46, p. 61-74

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

#### **HTML5-based mobile agents for Web-of-Things**

Voutilainen, J. P., Mattila, A. L., Systä, K. & Mikkonen, T., 2016, In : Informatica. 40, 1, p. 43-51 9 p.

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

### **Methodology to obtain the security controls in multi-cloud applications**

Afolaranmi, S. O., Gonzalez Moctezuma, L. E., Rak, M., Casola, V., Rios, E. & Martinez Lastra, J. L., 2016, *CLOSER 2016 - Proceedings of the 6th International Conference on Cloud Computing and Services Science*. SCITEPRESS, Vol. 1 . p. 327-332 6 p.

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, A., Mygdalis, V., Tefas, A. & Pitas, I., 2016, In : *Neural Processing Letters*. p. 1-16 16 p.

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

### **On the arity gap of finite functions: Results and applications**

Couceiro, M. & Lehtonen, E., 2016, In : *Journal of Multiple-Valued Logic and Soft Computing*. 27, 2-3, p. 193-207 15 p.

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

### **Software Startups - A Research Agenda**

Unterkalmsteiner, M., Abrahamsson, P., Wang, X. F., Nguyen-Duc, A., Shah, S., Bajwa, S. S., Baltés, G. H., Conboy, K., Cullina, E., Dennehy, D., Edison, H., Fernandez-Sanchez, C., Garbajosa, J., Gorschek, T., Klotins, E., Hokkanen, L., Kon, F., Lunesu, I., Marchesi, M., Morgan, L., Oivo, M., Selig, C., Seppänen, P., Sweetman, R., Tyrväinen, P., Ungerer, C. & Yagüe, A., 2016, In : *e-Informatica Software Engineering Journal*. 10, 1, p. 89-123 35 p.

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

### **Still image/video frame lossy compression providing a desired visual quality**

Zemliachenko, A., Lukin, V., Ponomarenko, N., Egiazarian, K. & Astola, J., 2016, In : *Multidimensional Systems and Signal Processing*. 27, 3, p. 697-718

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

### **Towards component-aware function point measurement**

Lavazza, L., Lenarduzzi, V. & Taibi, D., 2016, *Proceedings - 26th International Workshop on Software Measurement, IWSM 2016 and the 11th International Conference on Software Process and Product Measurement, Mensura 2016*. IEEE , p. 35-44 10 p.

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

### **The influence of developer multi-homing on competition between software ecosystems**

Hyrnsalmi, S., Suominen, A. & Mäntymäki, M., 1 Jan 2016, In : *Journal of Systems and Software*. 111, p. 119-127 9 p.

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

### **Lean manufacturing methods in simulation literature: Review and association analysis**

Tokola, H., Niemi, E. & Väistö, V., 16 Feb 2016, *2015 Winter Simulation Conference (WSC)*. p. 2239-2248 10 p.

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, P., Malapaschas, A., Olsson, T. & Väänänen, K., 27 Feb 2016, *CSCW '16 - Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing*. ACM, p. 1691-1702 12 p.

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, P., Malapaschas, A., Olsson, T. & Väänänen, K., 27 Feb 2016, *CSCW '16 Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing*. ACM, p. 53-56 4 p.

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, J., 1 Mar 2016, In : *3D Research*. 7, 1, p. 1-11 11 p., 2.

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

#### **Detection of bubbles as concentric circular arrangements**

Strokina, N., Matas, J., Eerola, T., Lensu, L. & Kälviäinen, H., Apr 2016, In : Machine Vision and Applications. 27, 3, p. 387-396 10 p.

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

#### **Texture classification using dense micro-block difference**

Mehta, R. & Egiazarian, K., 1 Apr 2016, In : IEEE Transactions on Image Processing. 25, 4, p. 1604-1616 13 p.

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

#### **Learnings from the Finnish game industry**

Helenius, M., Kettunen, P. & Frank, L., 7 Apr 2016, *Proceedings of the 10th Travelling Conference on Pattern Languages of Programs, VikingPLoP 2016*. ACM, a12

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

#### **Patterns for safety system bus architecture**

Rauhämäki, J., 7 Apr 2016, *Proceedings of the 10th Travelling Conference on Pattern Languages of Programs, VikingPLoP 2016*. ACM, a4

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

#### **Patterns for subsidiaries as innovation tools**

Leppänen, M. & Hokkanen, L., 7 Apr 2016, *Proceedings of the 10th Travelling Conference on Pattern Languages of Programs, VikingPLoP 2016*. ACM, 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, T. & Kujala, S., 1 May 2016, In : Interacting with Computers. 28, 3, p. 311-331 21 p.

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

#### **Collaboration change in enterprise software development**

Smolander, K., Rossi, M. & Pekkola, S., 14 May 2016, *Proceedings - 9th International Workshop on Cooperative and Human Aspects of Software Engineering, CHASE 2016*. ACM, p. 68-74 7 p.

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, N., Aaltonen, T. & Mikkonen, T., 14 May 2016, *MOBILESoft '16 Proceedings of the International Conference on Mobile Software Engineering and Systems*. ACM, p. 179-188 10 p.

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

#### **Prototyping real-Time tracking systems on mobile devices**

Lee, K., Salem, H. B., Damarla, T., Stechele, W. & Bhattacharyya, S. S., 16 May 2016, *CF '16 Proceedings of the ACM International Conference on Computing Frontiers*. ACM, p. 301-308 8 p.

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

#### **Blind sub-Nyquist GNSS signal detection**

Daniel, O., Raasakka, J., Peltola, P., Fröhle, M., Rivero-Rodriguez, A., Wymeersch, H. & Nurmi, J., 18 May 2016, *2016 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. IEEE, p. 6575-6579 5 p.

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

#### **On Renyi's entropy estimation with one-dimensional Gaussian kernels**

Sarbu, S., 18 May 2016, *2016 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. IEEE, p. 4408-4412 5 p.

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

#### **Supervised subspace learning based on deep randomized networks**

Iosifidis, A. & Gabbouj, M., 18 May 2016, *2016 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. The Institute of Electrical and Electronics Engineers, Inc., p. 2584-2588 5 p.

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, V., Ihantola, P. & Mikkonen, T., 19 May 2016, *2016 IEEE 29th International Conference on Software Engineering Education and Training (CSEET)*. IEEE, p. 86-90 5 p.

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, S., Liu, Y., Plishker, W. & Bhattacharyya, S. S., 23 May 2016, *Proceedings of the 19th International Workshop on Software and Compilers for Embedded Systems, SCOPES 2016*. ACM, p. 20-29 10 p.

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

#### **Learning movement synchronization in multi-component robotic systems**

Thabet, M., Montebelli, A. & Kyriki, V., 8 Jun 2016, *2016 IEEE International Conference on Robotics and Automation (ICRA)*. IEEE, p. 249-256 8 p.

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

#### **Optimizing gaze direction in a visual navigation task**

Välimäki, T. & Ritala, R., 8 Jun 2016, *2016 IEEE International Conference on Robotics and Automation (ICRA)*. IEEE, p. 1427-1432 6 p.

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, F., Dehmer, M. & Shi, Y., 10 Jun 2016, In : *Information Sciences*. 346-347, p. 180-197 18 p.

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, J., Hyrynsalmi, S. & Leppänen, V., 13 Jun 2016, *6th International Conference on Web Intelligence, Mining and Semantics, WIMS 2016*. Association for Computing Machinery, 26

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

#### **Emotional Reactions to Point-Light Display Animations**

Venesvirta, H., Surakka, V., Gizatdinova, Y., Lylykangas, J., Špakov, O., Verho, J., Vetek, A. & Lekkala, J., 16 Jun 2016, In : *Interacting with Computers*. 28, 4, p. 521-531 11 p.

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, V., Hyrynsalmi, S. & Nevalainen, O., 23 Jun 2016, *Computer Systems and Technologies 17th International Conference, CompSysTech 2016 - Proceedings*. Association for Computing Machinery, Vol. 1164. p. 41-48 8 p.

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, S., Rauti, S., Laurén, S., Mäkelä, J. M., Holvitie, J., Hyrynsalmi, S. & Leppänen, V., 23 Jun 2016, *Computer Systems and Technologies 17th International Conference, CompSysTech 2016 - Proceedings*. Association for Computing Machinery, Vol. 1164. p. 113-120 8 p.

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, N. & Aghagolzadeh, A., 1 Jul 2016, In : *IEEE Transactions on Image Processing*. 25, 7, p. 3126-3140 15 p.

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

#### **On the Architecture of Liquid Software: Technology Alternatives and Design Space**

Gallidabino, A., Pautasso, C., Ilvonen, V., Mikkonen, T., Systä, K., Voutilainen, J-P. & Taivalsaari, A., 19 Jul 2016, *Proceedings - 2016 13th Working IEEE/IFIP Conference on Software Architecture, WICSA 2016*. IEEE, p. 122-127 6 p.

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

**SoftWater: Software-defined networking for next-generation underwater communication systems**

Akyildiz, I. F., Wang, P. & Lin, S. C., Aug 2016, In : Ad Hoc Networks. 46

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

**Trading exploits online: A preliminary case study**

Ruohonen, J., Hyrynsalmi, S. & Leppänen, V., 23 Aug 2016, *IEEE RCIS 2016 - IEEE 10th International Conference on Research Challenges in Information Science*. IEEE COMPUTER SOCIETY PRESS

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

**Nyström-based approximate kernel subspace learning**

Iosifidis, A. & Gabbouj, M., Sep 2016, In : Pattern Recognition. p. 190-197 8 p.

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

**Using elicitation studies to generate collocated interaction methods**

Jokela, T., Rezaei, P. P. & Väänänen, K., 6 Sep 2016, *Proceedings of the 18th International Conference on Human-Computer Interaction with Mobile Devices and Services Adjunct, MobileHCI 2016*. ACM, p. 1129-1133 5 p.

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, V. & Taibi, D., 14 Oct 2016, *Proceedings - 42nd Euromicro Conference on Software Engineering and Advanced Applications, SEAA 2016*. IEEE, p. 112-119 8 p.

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, L., Lumini, A., dos Santos, F. L. C., Paci, M. & Hyttinen, J., 15 Oct 2016, In : Pattern Recognition Letters. 82, p. 28-35

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

**Casual immersive viewing with smartphones**

Rakkolainen, I., Raisamo, R., Turk, M., Höllerer, T. & Palovuori, K., 17 Oct 2016, *AcademicMindtrek 2016 - Proceedings of the 20th International Academic Mindtrek Conference*. ACM, p. 449-452 4 p.

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, L., Xu, Y. & Väänänen, K., 17 Oct 2016, *AcademicMindtrek 2016 - Proceedings of the 20th International Academic Mindtrek Conference*. ACM, p. 59-67 9 p.

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, E., Väättäjä, H., Roto, V. & Uusitalo, K., 17 Oct 2016, *AcademicMindtrek '16 Proceedings of the 20th International Academic Mindtrek Conference*. ACM, p. 49-58 10 p.

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

**Software visualization today - Systematic literature review**

Mattila, A-L., Ihantola, P., Kilamo, T., Luoto, A., Nurminen, M. & Väättäjä, H., 17 Oct 2016, *AcademicMindtrek 2016 - Proceedings of the 20th International Academic Mindtrek Conference*. ACM, p. 262-271 10 p.

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, S., Pesonen, E. & Väättäjä, H., 17 Oct 2016, *AcademicMindtrek 2016 - Proceedings of the 20th International Academic Mindtrek Conference*. ACM, 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, S., Leppänen, M., Kilamo, T., Mattila, A-L., Laukkanen, E., Pagels, M. & Männistö, T., 1 Dec 2016, In : *Information and Software Technology*. 80, p. 1339-1351 13 p.  
Research output: Contribution to journal › Article › Scientific › peer-review

**BM3D-HVS: Content-Adaptive denoising for improved visual quality**  
Egiazarian, K., Danielyan, A., Ponomarenko, N., Foia, A., Ieremeiev, O. & Lukin, V., 2017, *Image Processing: Algorithms and Systems XV*. p. 48-55 8 p. (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., 2017, In : *Automatic Control and Computer Sciences*. 51, 7, p. 701-708 8 p.  
Research output: Contribution to journal › Article › Scientific › peer-review

**From theories to game mechanics: Developing a game for training rational numbers**  
Kiili, K., 2017, *Proceedings of the 11th European Conference on Games Based Learning, ECGBL 2017*. Academic Conferences and Publishing International Limited, p. 328-334 7 p.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Full-reference metrics multidistortional analysis**  
Ieremeiev, O., Lukin, V., Ponomarenko, N. & Egiazarian, K., 2017, *Image Processing: Algorithms and Systems XV*. p. 27-35 9 p. (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, L. R., Guerrero, I., Bakic, P. R., Foi, A., Maidment, A. D. A. & Vieira, M. A. C., 2017, In : *IEEE Transactions on Medical Imaging*. 36, 11, 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, P., Fan, L., Kämäräinen, J-K. & Gabbouj, M., 2017, In : *Machine Vision and Applications*. 28, 7, p. 679-694 16 p.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Stop it, and be stubborn!**  
Valmari, A., 1 Jan 2017, In : *ACM Transactions on Embedded Computing Systems*. 16, 2, 46.  
Research output: Contribution to journal › Article › Scientific › peer-review

**Post-deployment data: A recipe for satisfying knowledge needs in software development?**  
Suonsyrjä, S., Hokkanen, L., Terho, H., Systä, K. & Mikkonen, T., 6 Jan 2017, *2016 Joint Conference of the International Workshop on Software Measurement and the International Conference on Software Process and Product Measurement (IWSM-MENSURA)*. IEEE, p. 139-147 9 p.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

**Modular audio story platform for museums**  
Salo, K., Zinin, V., Bauters, M. & Mikkonen, T., 7 Mar 2017, *IUI 2017 - Companion of the 22nd International Conference on Intelligent User Interfaces*. ACM, p. 113-116 4 p.  
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., 1 Apr 2017, In : *IEEE Transactions on Medical Imaging*. 36, 4, p. 930-941 12 p., 7731161.  
Research output: Contribution to journal › Article › Scientific › peer-review

**On continuous deployment maturity in customer projects**  
Virtanen, A., Kuusinen, K., Leppänen, M., Luoto, A., Kilamo, T. & Mikkonen, T., 3 Apr 2017, *32nd Annual ACM Symposium on Applied Computing, SAC 2017*. ACM, p. 1205-1212 8 p.

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

#### **User generated soundscapes activating museum visitors**

Salo, K., Bauters, M. & Mikkonen, T., 3 Apr 2017, *32nd Annual ACM Symposium on Applied Computing, SAC 2017*. ACM, p. 220-227 8 p.

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

#### **Preventing keystroke based identification in open data sets**

Leinonen, J., Ihantola, P. & Hellas, A., 12 Apr 2017, *L@S 2017 - Proceedings of the 4th (2017) ACM Conference on Learning at Scale*. ACM, p. 101-109 9 p.

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

#### **Effects of extrinsic noise are promoter kinetics dependent**

Bahrudeen, M. N. M., Startceva, S. & Ribeiro, A. S., 14 May 2017, *Proceedings of the 2017 9th International Conference on Bioinformatics and Biomedical Technology, ICBBT 2017*. ACM, p. 44-47 4 p.

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, A., Mikkonen, T., Pautasso, C. & Systä, K., 16 May 2017, *2017 IEEE International Conference on Software Architecture (ICSA)*. IEEE, p. 51-54 4 p. 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, D., Lenarduzzi, V., Pahl, C. & Janes, A., 22 May 2017, *Proceedings of the XP2017 Scientific Workshops, XP 2017*. Association for Computing Machinery, Vol. Part F129907. 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, D., Lenarduzzi, V., Ahmad, M. O. & Liukkunen, K., 15 Jun 2017, *Proceedings of the 21st International Conference on Evaluation and Assessment in Software Engineering, EASE 2017*. Association for Computing Machinery, Vol. Part F128635. p. 258-263 6 p.

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., 15 Jun 2017, *Proceedings of the 21st International Conference on Evaluation and Assessment in Software Engineering, EASE 2017*. Association for Computing Machinery, Vol. Part F128635. p. 31-40 10 p.

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, H., Kiranyaz, S. & Gabbouj, M., 16 Jun 2017, *2017 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2017 - Proceedings*. IEEE, p. 2587-2591 5 p.

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, K., Riggan, B. S. & Bhattacharyya, S. S., 16 Jun 2017, *2017 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2017 - Proceedings*. IEEE, p. 2976-2980 5 p.

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, D., Riihonen, T. & Valkama, M., 16 Jun 2017, *2017 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2017 - Proceedings*. IEEE, p. 6558-6562 5 p.

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

#### **Reduced-complexity digital predistortion for massive MIMO**

Abdelaziz, M., Anttila, L. & Valkama, M., 16 Jun 2017, *2017 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2017 - Proceedings*. IEEE, p. 6478-6482 5 p.



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, R. & Olsson, T., 26 Jun 2017, *C&T 2017 - 8th International Conference on Communities and Technologies, Conference Proceedings*. ACM, p. 2-10 9 p.

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, J., Niemi, H. & Hamilton, E., 27 Jun 2017, *IDC 2017 - Proceedings of the 2017 ACM Conference on Interaction Design and Children*. ACM, p. 693-696 4 p.

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, L., Leinonen, J., Ihanola, P. & Hellas, A., 29 Jun 2017, *Proceedings - 2017 IEEE/ACM 39th International Conference on Software Engineering: Software Engineering and Education Track, ICSE-SEET 2017*. IEEE, p. 4-12 9 p.

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

**A convolutional neural network approach for acoustic scene classification**

Valenti, M., Squartini, S., Diment, A., Parascandolo, G. & Virtanen, T., 30 Jun 2017, *2017 International Joint Conference on Neural Networks, IJCNN 2017*. IEEE, p. 1547-1554 8 p.

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

**Analyzing Forty years of software maintenance models**

Lenarduzzi, V., Sillitti, A. & Taibi, D., 30 Jun 2017, *Proceedings - 2017 IEEE/ACM 39th International Conference on Software Engineering Companion, ICSE-C 2017*. Institute of Electrical and Electronics Engineers Inc., 7965284

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

**Class-specific kernel discriminant analysis based on Cholesky decomposition**

Iosifidis, A. & Gabbouj, M., 30 Jun 2017, *2017 International Joint Conference on Neural Networks, IJCNN 2017*. IEEE, p. 1141-1146 6 p.

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

**DevOps in regulated software development: Case medical devices**

Laukkarinen, T., Kuusinen, K. & Mikkonen, T., 30 Jun 2017, *Proceedings - 2017 IEEE/ACM 39th International Conference on Software Engineering: New Ideas and Emerging Results Track, ICSE-NIER 2017*. IEEE, p. 15-18 4 p.

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

**Generalized model of biological neural networks: Progressive operational perceptrons**

Kiranyaz, S., Ince, T., Iosifidis, A. & Gabbouj, M., 30 Jun 2017, *2017 International Joint Conference on Neural Networks, IJCNN 2017*. IEEE, p. 2477-2485 9 p.

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

**Running software research programs: An agile approach**

Järvinen, J., Huomo, T. & Mikkonen, T., 30 Jun 2017, *Proceedings - 2017 IEEE/ACM 39th International Conference on Software Engineering Companion, ICSE-C 2017*. IEEE, p. 314-316 3 p.

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

**Multi-robot active information gathering with periodic communication**

Lauri, M., Heinänen, E. & Frintrop, S., 21 Jul 2017, *ICRA 2017 - IEEE International Conference on Robotics and Automation*. IEEE, p. 851-856 6 p.

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

**Robustifying correspondence based 6D object pose estimation**

Hietanen, A., Halme, J., Buch, A. G., Latokartano, J. & Kamarainen, J.-K., 21 Jul 2017, *ICRA 2017 - IEEE International Conference on Robotics and Automation*. IEEE, p. 739-745 7 p.

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, T., Li, L., Viitanen, T., Sau, C., Xie, R., Palumbo, F., Raffo, L., Huttunen, H., Takala, J. & Bhattacharyya, S. S., 1 Aug 2017, In : *Journal of Systems Architecture*. 78, p. 15-29 15 p.

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

### **Comparison of time metrics in programming**

Leinonen, J., Leppänen, L., Ihantola, P. & Hellas, A., 14 Aug 2017, *ICER 2017 - Proceedings of the 2017 ACM Conference on International Computing Education Research*. ACM, p. 200-208 9 p.

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

### **Architecting liquid software**

Gallidabino, A., Pautasso, C., Mikkonen, T., Systä, K., Voutilainen, J-P. & Taivalsaari, A., 1 Sep 2017, In : *Journal of Web Engineering*. 16, 5-6, p. 433-470 38 p.

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

### **Predicting academic success based on learning material usage**

Leppänen, L., Leinonen, J., Ihantola, P. & Hellas, A., 27 Sep 2017, *SIGITE 2017 - Proceedings of the 18th Annual Conference on Information Technology Education*. ACM, p. 13-18 6 p.

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

### **Gamified crowdsourcing: Conceptualization, literature review, and future agenda**

Morschheuser, B., Hamari, J., Koivisto, J. & Maedche, A., 1 Oct 2017, In : *International Journal of Human-Computer Studies*. 106, p. 26-43 18 p.

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

### **Highly unique network descriptors based on the roots of the permanental polynomial**

Dehmer, M., Emmert-Streib, F., Hu, B., Shi, Y., Stefu, M. & Tripathi, S., 1 Oct 2017, In : *Information Sciences*. 408, p. 176-181 6 p.

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

### **Big Media Data Analysis**

Iosifidis, A., Tefas, A., Pitas, I. & Gabbouj, M., 1 Nov 2017, In : *Signal Processing: Image Communication*. 59, p. 105-108 4 p.

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

### **Multi-factor authentication for wearables: Configuring system parameters with risk function**

Bezzateev, S., Afanasyeva, A., Voloshina, N. & Ometov, A., 13 Nov 2017, *Proceedings of the 2nd International Conference on Advanced Wireless Information, Data, and Communication Technologies, AWICT 2017*. ACM

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

### **How developers perceive smells in source code: A replicated study**

Taibi, D., Janes, A. & Lenarduzzi, V., 1 Dec 2017, In : *Information and Software Technology*. 92, p. 223-235 13 p.

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

### **Multilinear class-specific discriminant analysis**

Thanh Tran, D., Gabbouj, M. & Iosifidis, A., 1 Dec 2017, In : *Pattern Recognition Letters*. 100, p. 131-136 6 p.

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

### **Quantitative Graph Theory: A new branch of graph theory and network science**

Dehmer, M., Emmert-Streib, F. & Shi, Y., 1 Dec 2017, In : *Information Sciences*. 418-419, p. 575-580 6 p.

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

### **Sparse approximations in complex domain based on BM3D modeling**

Katkovnik, V., Ponomarenko, M. & Egiazarian, K., 1 Dec 2017, In : Signal Processing. 141, p. 96-108 13 p.  
Research output: Contribution to journal › Article › Scientific › peer-review

### **A Dataset for Camera Independent Color Constancy**

Aytekin, C., Nikkanen, J. & Gabbouj, M., 2018, In : IEEE Transactions on Image Processing. 27, 2, 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, J., Astola, P., Stanković, R. & Tabus, I., 2018, In : Journal of Multiple-Valued Logic and Soft Computing. 31, 3, p. 239-253 15 p.  
Research output: Contribution to journal › Article › Scientific › peer-review

### **Architectural patterns for microservices: A systematic mapping study**

Taibi, D., Lenarduzzi, V. & Pahl, C., 2018, *CLOSER 2018 - Proceedings of the 8th International Conference on Cloud Computing and Services Science*. SCITEPRESS, p. 221-232 12 p.  
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, M., Gapon, N., Voronin, V. & Egiazarian, K., 2018, *Electronic Imaging: Image Processing: Algorithms and Systems XVI*. Society for Imaging Science and Technology  
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. & Agaian, S., 2018, *Electronic Imaging: Image Processing: Algorithms and Systems XVI*. Society for Imaging Science and Technology  
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, O., Ponomarenko, M., Lukin, V. & Egiazarian, K., 2018, *Electronic Imaging: Image Processing: Algorithms and Systems XVI*. Society for Imaging Science and Technology  
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, E., Vagharshakyan, S., Bregovic, R., Lee, G. & Gotchev, A., 2018, *Electronic Imaging: Stereoscopic Displays and Applications XXIX*. Society for Imaging Science and Technology, p. 1441-1445 5 p.  
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., 2018, *Electronic Imaging: Image Processing: Algorithms and Systems XVI*. Society for Imaging Science and Technology  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

### **Fair testing and stubborn sets**

Valmari, A. & Vogler, W., 2018, In : International Journal on Software Tools for Technology Transfer. p. 589-610 22 p.  
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., 2018, In : Ad Hoc Networks. 68, p. 58-69  
Research output: Contribution to journal › Article › Scientific › peer-review

### **How to design gamification? A method for engineering gamified software**

Morschheuser, B., Hassan, L., Werder, K. & Hamari, J., 2018, In : Information and Software Technology. 95, p. 219-237  
Research output: Contribution to journal › Article › Scientific › peer-review

### **Information Exchange Architecture for Collaborative Industrial Ecosystem**

Kannisto, P., Hästbacka, D. & Marttinen, A., 2018, In : Information Systems Frontiers. 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, D., Kannisto, P. & Vilkkö, M., 2018, *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, p. 216-222 7 p.

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

### **Is Texture Denoising Efficiency Predictable?**

Rubel, O., Lukin, V., Abramov, S., Vozel, B., Pogrebnyak, O. & Egiazarian, K., 2018, In : International Journal of Pattern Recognition and Artificial Intelligence. 32, 1, 1860005 .

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

### **Making the cloud work for software producers: Linking architecture, operating cost and revenue**

Rosati, P., Fowley, F., Pahl, C., Taibi, D. & Lynn, T., 2018, *CLOSER 2018 - Proceedings of the 8th International Conference on Cloud Computing and Services Science*. SCITEPRESS, p. 364-375 12 p.

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

### **Memory Tampering Attack on Binary GCD Based Inversion Algorithms**

Aldaya, A. C., Brumley, B. B., Sarmiento, A. J. C. & Sánchez-Solano, S., 2018, In : International Journal of Parallel Programming. 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, M., Katkovnik, V. & Egiazarian, K., 2018, *Electronic Imaging: Image Processing: Algorithms and Systems XVI*. Society for Imaging Science and Technology

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., 2018, In : Structural and Multidisciplinary Optimization. 57, 2, p. 579–593 15 p.

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

### **Modeling and estimation of signal-dependent and correlated noise**

Azzari, L., Borges, L. R. & Foi, A., 2018, *Denoising of Photographic Images and Video: Fundamentals, Open Challenges and New Trends*. SPRINGER-VERLAG LONDON LTD, p. 1-36 36 p. (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, B., Aïssa-El-Bey, A. & Al-Sa'd, M. F., 2018, In : SoftwareX. 8, p. 53-58

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

### **Multi-view predictive latent space learning**

Yuan, J., Gao, K., Zhu, P. & Egiazarian, K., 2018, In : Pattern Recognition Letters.

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

### **On the degeneracy of the Randić entropy and related graph measures**

Dehmer, M., Chen, Z., Mowshowitz, A., Jodlbauer, H., Emmert-Streib, F., Shi, Y., Tripathi, S. & Xia, C., 2018, In : Information Sciences.

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

### **Probabilistic saliency estimation**

Aytekin, C., Iosifidis, A. & Gabbouj, M., 2018, In : Pattern Recognition. 74, p. 359-372 14 p.  
Research output: Contribution to journal › Article › Scientific › peer-review

### **Reduction of variables of index generation functions using linear and quadratic transformations**

Astola, H., Stanković, R. & Astola, J., 2018, In : Journal of Multiple-Valued Logic and Soft Computing. 31, 3, p. 255-270 16 p.  
Research output: Contribution to journal › Article › Scientific › peer-review

### **Robust linearized combined metrics of image visual quality**

Ieremeiev, O., Lukin, V., Ponomarenko, N. & Egiazarian, K., 2018, *Electronic Imaging: Image Processing: Algorithms and Systems XVI*. Society for Imaging Science and Technology  
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, M., Bregovic, R. & Gotchev, A., 2018, In : IEEE Transactions on Image Processing. 27, 6  
Research output: Contribution to journal › Article › Scientific › peer-review

### **Feature synthesis for image classification and retrieval via one-against-all perceptrons**

Raitoharju, J., Kiranyaz, S. & Gabbouj, M., Feb 2018, In : Neural Computing and Applications. 29, 4, p. 943-957 15 p.  
Research output: Contribution to journal › Article › Scientific › peer-review

### **Memory-Constrained vectorization and scheduling of dataflow graphs for hybrid CPU-GPU platforms**

Lin, S., Wu, J. & Bhattacharyya, S. S., 1 Feb 2018, In : ACM Transactions on Embedded Computing Systems. 17, 2, 50.  
Research output: Contribution to journal › Article › Scientific › peer-review

### **A multi-agent approach for processing industrial enterprise data**

Mohammed, W. M., Ferrer, B. R., Martinez, J. L., Sanchis, R., Andres, B. & Agostinho, C., 2 Feb 2018, *2017 International Conference on Engineering, Technology and Innovation: Engineering, Technology and Innovation Management Beyond 2020: New Challenges, New Approaches, ICE/ITMC 2017 - Proceedings*. IEEE, p. 1209-1215 7 p.  
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, A., Lastusilta, T., Korvola, T., Saari, L., Bendas, D., Mohammed, W. M. & Lee, A. N., 2 Feb 2018, *2017 International Conference on Engineering, Technology and Innovation: Engineering, Technology and Innovation Management Beyond 2020: New Challenges, New Approaches, ICE/ITMC 2017 - Proceedings*. IEEE, p. 1123-1130 8 p.  
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, W. M., Ferrer, B. R., Jose, L., Lastra, M., Aleixo, D. & Agostinho, C., 2 Feb 2018, *2017 International Conference on Engineering, Technology and Innovation: Engineering, Technology and Innovation Management Beyond 2020: New Challenges, New Approaches, ICE/ITMC 2017 - Proceedings*. IEEE, p. 1201-1208 8 p.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

### **Exploiting suppliers' potential in construction innovations**

Sariola, R., 2 Feb 2018, *2017 International Conference on Engineering, Technology and Innovation: Engineering, Technology and Innovation Management Beyond 2020: New Challenges, New Approaches, ICE/ITMC 2017 - Proceedings*. IEEE, p. 678-684 7 p.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

### **Deep multiresolution color constancy**

Aytekin, C., Nikkanen, J. & Gabbouj, M., 20 Feb 2018, *2017 IEEE International Conference on Image Processing, ICIP 2017 - Proceedings*. IEEE COMPUTER SOCIETY PRESS, p. 3735-3739 5 p.  
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, J., Blattner, T., Keyrouz, W. & Bhattacharyya, S. S., 19 Apr 2018, *Proceedings of the 2018 Design, Automation and Test in Europe Conference and Exhibition, DATE 2018*. IEEE, p. 1304-1309 6 p.

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, A., Alonso, M. B. & Jumisko-Pyykkö, S., 20 Apr 2018, *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. ACM, 655

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

### **Towards secure cloud orchestration for multi-cloud deployments**

Paladi, N., Michalas, A. & Dang, H. V., 23 Apr 2018, *CrossCloud 2018 - 5th Workshop on CrossCloud Infrastructures and Platforms, colocated with EuroSys 2018*. ACM, 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, J., Martinsuo, M. & Nenonen, S., May 2018, In : *Journal of Manufacturing Technology Management*. 29, 4, p. 658-675 19 p.

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

### **On the Definition of Microservice Bad Smells**

Taibi, D. & Lenarduzzi, V., 1 May 2018, In : *IEEE Software*. 35, 3, p. 56-62 7 p.

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

### **Preface: Special Issue on 'New Hydraulic Components for Tough Robots'**

Suzumori, K., Hyon, S. H., Semini, C., Mattila, J. & Kanda, T., 3 May 2018, In : *Advanced Robotics*. 32, 9, 1 p.

Research output: Contribution to journal > Editorial > Scientific

### **Toward efficient many-core scheduling of partial expansion graphs**

Tran, H. N., Bhattacharyya, S. S., Talpin, J. P. & Gautier, T., 28 May 2018, *Proceedings of the 21st International Workshop on Software and Compilers for Embedded Systems, SCOPES 2018*. Association for Computing Machinery, Inc, p. 100-103 4 p.

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, S., 30 May 2018, *Proceedings of the 19th Annual International Conference on Digital Government Research: Governance in the Data Age, DG.O 2018*. ACM, 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, I. B. R., Ribeiro, A. M., Requião, R., Pontes, K. V., Koivisto, H., Rodrigues, A. E. & Loureiro, J. M., 1 Jun 2018, In : *Applied Soft Computing Journal*. 67, p. 29-47 19 p.

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

### **Fast and easy live video service setup using lightweight virtualization**

Heikkinen, A., Pääkkönen, P., Viitanen, M., Vanne, J., Riikonen, T. & Bakanoglu, K., 12 Jun 2018, *Proceedings of the 9th ACM Multimedia Systems Conference, MMSys 2018*. ACM, p. 487-489 3 p.

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

### **Optimized viewport dependent streaming of stereoscopic omnidirectional video**

Naik, D., Curcio, I. D. D. & Toukoma, H., 12 Jun 2018, *Proceedings of the 23th ACM Workshop on Packet Video, PV 2018*. ACM, p. 37-42 6 p.

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, A., Erkaya, M., Buruk, O. T. & Göksun, T., 19 Jun 2018, *IDC 2018 - Proceedings of the 2018 ACM Conference on Interaction Design and Children*. ACM, p. 644-649 6 p.

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, M., Hassan, L., Macey, J., Törhönen, M. & Hamari, J., 18 Jul 2018, *Proceedings of the 9th International Conference on Social Media and Society, SMSociety 2018*. ACM, p. 160-167 8 p.

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, M., Vanne, J., Hämäläinen, T. D. & Kulmala, A., 19 Jul 2018, *Proceedings - 2018 IEEE 38th International Conference on Distributed Computing Systems, ICDCS 2018*. IEEE, p. 1557-1560 4 p.

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

**A joint target localization and classification framework for sensor networks**

Lee, K., Riggan, B. S. & Bhattacharyya, S. S., 10 Sep 2018, *2018 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2018 - Proceedings*. Institute of Electrical and Electronics Engineers Inc., Vol. 2018-April. p. 3076-3080 5 p. 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, J. & Virtanen, T., 10 Sep 2018, *2018 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2018 - Proceedings*. Institute of Electrical and Electronics Engineers Inc., Vol. 2018-April. p. 421-425 5 p. 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, J., Aytakin, C. & Gabbouj, M., 10 Sep 2018, *2018 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2018 - Proceedings*. Institute of Electrical and Electronics Engineers Inc., Vol. 2018-April. p. 1548-1552 5 p. 8462672

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

**Statistical Evaluation of Visual Quality Metrics for Image Denoising**

Egiazarian, K., Ponomarenko, M., Lukin, V. & Ieremeiev, O., 10 Sep 2018, *2018 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2018 - Proceedings*. Institute of Electrical and Electronics Engineers Inc., Vol. 2018-April. p. 6752-6756 5 p. 8462294

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

**Designing for experiences with socially interactive robots**

Obaid, M., Kaipainen, K., Ocnarescu, I. & Ahtinen, A., 29 Sep 2018, *NordiCHI 2018: Revisiting the Life Cycle - Proceedings of the 10th Nordic Conference on Human-Computer Interaction*. ACM, p. 948-951 4 p.

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

**Understanding animals: A critical challenge in ACI**

Aspling, F., Juhlin, O. & Väättäjä, H., 29 Sep 2018, *NordiCHI 2018: Revisiting the Life Cycle - Proceedings of the 10th Nordic Conference on Human-Computer Interaction*. ACM, p. 148-160 13 p.

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, M., Mercat, A., Desnos, K., Maggiani, L., Liu, Y., Heulot, J., Nezan, J. F., Hamidouche, W., Menard, D. & Bhattacharyya, S. S., Oct 2018, In : *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*. 37, 10, p. 2050-2063

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

### **Graph measures with high discrimination power revisited: A random polynomial approach**

Dehmer, M., Chen, Z., Emmert-Streib, F., Shi, Y. & Tripathi, S., 1 Oct 2018, In : *Information Sciences*. 467, p. 407-414 8 p.  
Research output: Contribution to journal › Article › Scientific › peer-review

### **End-to-End Polyphonic Sound Event Detection Using Convolutional Recurrent Neural Networks with Learned Time-Frequency Representation Input**

Cakir, E. & Virtanen, T., 10 Oct 2018, *2018 International Joint Conference on Neural Networks, IJCNN 2018 - Proceedings*. IEEE, 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, J., Väätäjä, H., Heimonen, T., Tiitinen, K., Hakulinen, J., Turunen, M. & Nieminen, H., 10 Oct 2018, *Mindtrek 2018 - Proceedings of the 22nd International Academic Mindtrek Conference*. ACM, p. 172-181 10 p.

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, C., Karhu, J., Kauhanen, O., Turunen, M., Väätäjä, H. & Lindqvist, V., 10 Oct 2018, *Mindtrek 2018 - Proceedings of the 22nd International Academic Mindtrek Conference*. ACM, p. 258-261 4 p.

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, S., Politis, A. & Virtanen, T., 10 Oct 2018, *2018 International Joint Conference on Neural Networks, IJCNN 2018 - Proceedings*. IEEE, 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., 10 Oct 2018, *Mindtrek 2018 - Proceedings of the 22nd International Academic Mindtrek Conference*. ACM, p. 222-227 6 p.

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

### **Systematic literature review on user logging in virtual reality**

Luoto, A., 10 Oct 2018, *Mindtrek 2018 - Proceedings of the 22nd International Academic Mindtrek Conference*. ACM, p. 110-117 8 p.

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, A., Kelling, C., Hakulinen, J., Kallioniemi, P., Keskinen, T., Turunen, M. & Väätäjä, H., 10 Oct 2018, *Mindtrek 2018 - Proceedings of the 22nd International Academic Mindtrek Conference*. ACM, p. 182-191 10 p.

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, S., Rossi, D. & Nurmi, J., 1 Nov 2018, In : *Microprocessors and Microsystems*. 63, p. 259-268 10 p.

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

### **On the Secrecy Capacity of Fisher-Snedecor F Fading Channels**

Badarneh, O. S., Sofotasios, P. C., Muhaidat, S., Cotton, S. L., Rabie, K. & Al-Dhahir, N., 26 Dec 2018, *2018 14th International Conference on Wireless and Mobile Computing, Networking and Communications, WiMob 2018*. IEEE, p. 102-107 6 p.

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

### **The N-Fisher-Snedecor F Cascaded Fading Model**

Badarneh, O. S., Muhaidat, S., Sofotasios, P. C., Cotton, S. L., Rabie, K. & Da Costa, D. B., 26 Dec 2018, *2018 14th International Conference on Wireless and Mobile Computing, Networking and Communications, WiMob 2018*. IEEE

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



### **Business intelligence process model revisited**

Hellsten, P. & Myllärniemi, J., 2019, *IC3K 2019 - Proceedings of the 11th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management*. Bernardino, J., Salgado, A. & Filipe, J. (eds.). SCITEPRESS, p. 341-348 8 p. (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, J., Helander, N. & Pekkola, S., 2019, *IC3K 2019 - Proceedings of the 11th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management*. Bernardino, J., Salgado, A. & Filipe, J. (eds.). SCITEPRESS, p. 370-376 7 p. (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, J., Kukkamäki, J. & Helander, N., 2019, *IC3K 2019 - Proceedings of the 11th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management*. Bernardino, J., Salgado, A. & Filipe, J. (eds.). SCITEPRESS, p. 285-290 6 p. (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, J., Thai, H. L., Akrou, R., Peters, J. & Neumann, G., 2019, In : *Machine Learning*.

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., 2019, In : *Vestnik Samarskogo Gosudarstvennogo Tekhnicheskogo Universiteta, Seriya Fiziko-Matematicheskie Nauki*. 23, 3, p. 452-463 12 p.

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, S., Tata, J. & Tan, B., 2019, *DATA 2019 - Proceedings of the 8th International Conference on Data Science, Technology and Applications*. Hammoudi, S., Quix, C. & Bernardino, J. (eds.). SCITEPRESS, p. 100-108 9 p.

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

### **Institutional Perspectives on the Process of Enterprise Architecture Adoption**

Dang, D. & Pekkola, S., 2019, In : *Information Systems Frontiers*.

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

### **Log analysis of 360-degree video users via MQTT**

Luoto, A., 2019, *ICGDA 2019: Proceedings of the 2019 2nd International Conference on Geoinformatics and Data Analysis*. ACM, p. 130-137 8 p.

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

### **PyGOP: A Python library for Generalized Operational Perceptron algorithms**

Tran, D. T., Kiranyaz, S., Gabbouj, M. & Iosifidis, A., 2019, (Accepted/In press) In : *Knowledge-Based Systems*.

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

### **Revisiting continuous deployment maturity: A two-year perspective**

Mäkinen, S., Puonti, M., Lehtonen, T., Mikkonen, T., Kilamo, T. & Männistö, T., 2019, *Proceedings of the 34th ACM/SIGAPP Symposium on Applied Computing*. ACM, p. 1810-1817 8 p.

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, A., 2019, *Proceedings of the 34th ACM/SIGAPP Symposium on Applied Computing*. ACM, p. 146-155 10 p.

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., 2019, In : Neuroinformatics. 14 p.

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, Y. V. & Samouylov, K. E., 1 Jan 2019, In : Informatsionno-Upravliaiushchie Sistemy. 5, p. 51-63 13 p.

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

### **Towards detecting structural branching and cyclicity in graphs: A polynomial-based approach**

Dehmer, M., Chen, Z., Emmert-Streib, F., Mowshowitz, A., Shi, Y., Tripathi, S. & Zhang, Y., 1 Jan 2019, In : Information Sciences. 471, p. 19-28 10 p.

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

### **Additional lossless compression of JPEG images based on BPG**

Ponomarenko, M., Miroshnichenko, O., Lukin, V. & Egiazarian, K., 13 Jan 2019, *Image Processing: Algorithms and Systems XVII*. (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, O., Lukin, V., Ponomarenko, N. & Egiazarian, K., 13 Jan 2019, *Image Processing: Algorithms and Systems XVII*. (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, M., Katkovnik, V. & Egiazarian, K., 13 Jan 2019, *Image Processing: Algorithms and Systems XVII*. (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, U., Sahin, E., Suominen, O. & Gotchev, A., 13 Jan 2019, *Stereoscopic Displays and Applications XXX*. (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, O., Beecham, S. & Richardson, I., 1 Feb 2019, In : Information and Software Technology. 106, p. 234-253 20 p.

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

### **Analysis of an efficient parallel implementation of active-set Newton algorithm**

San Juan Sebastián, P., Virtanen, T., Garcia-Molla, V. M. & Vidal, A. M., Mar 2019, In : Journal of Supercomputing. 75, 3, p. 1298-1309 12 p.

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

### **Convolutional low-resolution fine-grained classification**

Cai, D., Chen, K., Qian, Y. & Kämäräinen, J-K., Mar 2019, In : Pattern Recognition Letters. 119, p. 166-171

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

### **Challenges of Multi-Factor Authentication for Securing Advanced IoT Applications**

Ometov, A., Petrov, V., Bezzateev, S., Andreev, S., Koucheryavy, Y. & Gerla, M., 1 Mar 2019, In : IEEE Network. 33, 2, p. 82-88 7 p.

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, A., Isomottonen, V., Nieminen, P. & Keto, H., 4 Mar 2019, *Frontiers in Education: Fostering Innovation Through Diversity, FIE 2018 - Conference Proceedings*. IEEE, 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, Z., Basten, T., Beer, A., Geilen, M., Goswami, D., Jääskeläinen, P., Kadlec, J., Alejandro, M. M., Palumbo, F., Peeren, G., Pomante, L., Linden, F. V., Saarinen, J., Sääntti, T., Sau, C. & Zedda, M. K., 30 Apr 2019, *ACM International Conference on Computing Frontiers 2019, CF 2019 - Proceedings*. ACM, p. 333-338 6 p.

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

### **1-D Convolutional Neural Networks for Signal Processing Applications**

Kiranyaz, S., Ince, T., Abdeljaber, O., Avci, O. & Gabbouj, M., 1 May 2019, *2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings*. IEEE, p. 8360-8364 5 p.

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., 1 May 2019, *2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings*. IEEE, p. 1557-1561 5 p.

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

### **Deep Reinforcement Learning for Financial Trading Using Price Trailing**

Zarkias, K. S., Passalis, N., Tsantekidis, A. & Tefas, A., 1 May 2019, *2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings*. IEEE, p. 3067-3071 5 p.

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, N., Tefas, A., Kannianen, J., Gabbouj, M. & Iosifidis, A., 1 May 2019, *2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings*. IEEE, p. 7545-7549 5 p.

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

### **Low-latency Deep Clustering for Speech Separation**

Wang, S., Naithani, G. & Virtanen, T., 1 May 2019, *2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings*. IEEE, p. 76-80 5 p.

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

### **Random Forest Oriented Fast QTBT Frame Partitioning**

Amestoy, T., Mercat, A., Hamidouche, W., Bergeron, C. & Menard, D., 1 May 2019, *2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings*. IEEE, p. 1837-1841 5 p.

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, P. & Parviainen, M., 1 May 2019, *2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings*. IEEE, p. 436-440 5 p.

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, N., Mourgias-Alexandris, G., Tsakyridis, A., Pleros, N. & Tefas, A., 1 May 2019, *2019 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2019 - Proceedings*. IEEE, p. 1483-1487 5 p.

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

### **Towards Efficient Code Generation for Exposed Datapath Architectures**

Vadivel, K., Jordans, R., Stuijk, S., Corporaal, H., Jääskeläinen, P. & Kultala, H., 27 May 2019, *Proceedings of the 22nd International Workshop on Software and Compilers for Embedded Systems, SCOPES 2019*. Stuijk, S. (ed.). ACM, p. 86-89 4 p.

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, R. & Olsson, T., 3 Jun 2019, *C&T 2019 - 9th International Conference on Communities and Technologies, Conference Proceedings*. Tellioglu, H. & Cech, F. (eds.). ACM, p. 283-294 12 p.

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

#### **Investigation of egocentric social structures for diversity-enhancing followee recommendations**

Skenderi, E., Olshannikova, E., Olsson, T., Huhtamäki, J., Koivunen, S., Yao, P. & Huttunen, H., 6 Jun 2019, *ACM UMAP 2019 Adjunct - Adjunct Publication of the 27th Conference on User Modeling, Adaptation and Personalization*. ACM, p. 257-261 5 p.

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

#### **Public and open HEVC encoding service in the cloud**

Altonen, A., Viitanen, M., Räsänen, J., Mercat, A. & Vanne, J., 18 Jun 2019, *Proceedings of the 10th ACM Multimedia Systems Conference, MMSys 2019*. ACM, p. 300-303 4 p.

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, A., Fagerlund, E., Benfield, A. & Virtanen, T., 1 Jul 2019, *2019 International Joint Conference on Neural Networks, IJCNN 2019*. IEEE

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, J., Väänänen, K. & Remans, M. M. R., 1 Jul 2019, *Information Visualization - Biomedical Visualization and Geometric Modelling and Imaging, IV 2019*. Banissi, E., Ursyn, A., McK. Bannatyne, M. W., Datia, N., Pires, J. M., Francese, R., Sarfraz, M., Wyeld, T. G., Bouali, F., Venturin, G., Azzag, H., Lebbah, M., Trutschl, M., Cvek, U., Muller, H., Nakayama, M., Kernbach, S., Caruccio, L., Risi, M., Erra, U., Vitiello, A. & Rossano, V. (eds.). IEEE, p. 81-87 7 p. (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, F., Mattila, K. & Westerholm, J., 10 Jul 2019, In : *Concurrency Computation*. 31, 13, 16 p., e5072.

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

#### **Real-time online drilling vibration analysis using data mining**

Zare, M., Huova, M., Visa, A. & Launis, S., 19 Jul 2019, *Proceedings of the 2019 2nd International Conference on Data Science and Information Technology, DSIT 2019*. ACM, p. 175-180 6 p.

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, F., Lenarduzzi, V., Roveda, R. & Taibi, D., 1 Aug 2019, In : *Journal of Systems and Software*. 154, p. 139-156 18 p.

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

#### **Enabling cybersecurity incident reporting and coordinated handling for maritime sector**

Silverajan, B. & Vistiaho, P., 1 Aug 2019, *2019 14th Asia Joint Conference on Information Security, AsiaJCIS 2019*. IEEE, p. 88-95 8 p.

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

#### **Hermitian normalized Laplacian matrix for directed networks**

Yu, G., Dehmer, M., Emmert-Streib, F. & Jodlbauer, H., 1 Aug 2019, In : *Information Sciences*. 495, p. 175-184 10 p.

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

#### **Game postmortems vs. developer Reddit AMAs: Computational analysis of developer communication**

Lu, C., Peltonen, J. & Nummenmaa, T., 26 Aug 2019, *Proceedings of the 14th International Conference on the Foundations of Digital Games, FDG 2019*. Khosmood, F., Pirker, J., Apperley, T. & Deterding, S. (eds.). ACM, 22

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

#### **Social features in hybrid board game marketing material**

Nummenmaa, T. & Kankainen, V., 26 Aug 2019, *Proceedings of the 14th International Conference on the Foundations of Digital Games, FDG 2019*. Khosmood, F., Pirker, J., Apperley, T. & Deterding, S. (eds.). ACM, 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, J., Pertuz, S., Matas, J. & Kämäräinen, J-K., Sep 2019, In : *Computer Vision and Image Understanding*. 186, p. 58-73

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

#### **Model checking and validity in propositional and modal inclusion logics**

Hella, L., Kuusisto, A., Meier, A. & Virtema, J., 1 Sep 2019, In : *JOURNAL OF LOGIC AND COMPUTATION*. 29, 5, p. 605-630 26 p.

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

#### **Tunable VVC Frame Partitioning based on Lightweight Machine Learning**

Amestoy, T., Mercat, A., Hamidouche, W., Menard, D. & Bergeron, C., 6 Sep 2019, In : *IEEE Transactions on Image Processing*.

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, H. & Hamari, J., 1 Oct 2019, In : *International Journal of Human Computer Studies*. 130, p. 73-85 13 p.

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, O., Seshadri, S., Karadayi, J., Riebling, E., Bunce, J., Cristia, A., Metze, F., Casillas, M., Rosemberg, C., Bergelson, E. & Soderstrom, M., 1 Oct 2019, In : *Speech Communication*. 113, p. 63-80 18 p.

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

#### **DevOps in practice: A multiple case study of five companies**

Lwakatare, L. E., Kilamo, T., Karvonen, T., Sauvola, T., Heikkilä, V., Itkonen, J., Kuvaja, P., Mikkonen, T., Oivo, M. & Lassenius, C., 1 Oct 2019, In : *Information and Software Technology*. 114, p. 217-230 14 p.

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

#### **The Double Shadowed $\kappa$ - $\mu$ Fading Model**

Simmons, N., Nogueira Da Silva, C. R., Cotton, S. L., Sofotasios, P. C., Ki Yoo, S. & Yacoub, M. D., 1 Oct 2019, *2019 International Conference on Wireless and Mobile Computing, Networking and Communications, WiMob 2019*. IEEE, (International Conference on Wireless and Mobile Computing, Networking and Communications).

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

#### **Action-Oriented Programming Model: Collective Executions and Interactions in the Fog**

Mäkitalo, N., Aaltonen, T., Raatikainen, M., Ometov, A., Andreev, S., Koucheryavy, Y. & Mikkonen, T., 1 Nov 2019, In : *Journal of Systems and Software*. 157, 110391.

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

#### **Feasibility of FPGA accelerated IPsec on cloud**

Vajaranta, M., Oinonen, A., Hämäläinen, T. D., Viitamäki, V., Markunmäki, J. & Kulmala, A., 1 Nov 2019, In : *Microprocessors and Microsystems*. 71, 102861.

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

#### **Programming languages for data-intensive HPC applications: A systematic mapping study**

Amaral, V., Norberto, B., Goulão, M., Aldinucci, M., Benkner, S., Bracciali, A., Carreira, P., Celms, E., Correia, L., Grelck, C., Karatza, H., Kessler, C., Kilpatrick, P., Martiniano, H., Mavridis, I., Pillana, S., Respício, A., Simão, J., Veiga, L. & Visa, A., 8 Nov 2019, In : *Parallel Computing*. 91, 17 p., 102584.

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

### **Promoting local culture and enriching airport experiences through interactive storytelling**

Burova, A., Kelling, C., Keskinen, T., Hakulinen, J., Kallioniemi, P., Väätäjä, H. & Turunen, M., 26 Nov 2019, *MUM 2019 - 18th International Conference on Mobile and Ubiquitous Multimedia, Proceedings*. Jacucci, G., Paterno, F., Rohs, M. & Santoro, C. (eds.). Association for Computing Machinery, 7 p. 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, S. S., Huttunen, H., Niemi, J. & Tohka, J., 1 Dec 2019, In : *Pattern Recognition Letters*. 128, p. 52-59 8 p.

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

### **Software architecture design in global software development: An empirical study**

Sievi-Korte, O., Richardson, I. & Beecham, S., 1 Dec 2019, In : *Journal of Systems and Software*. 158, 110400.

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

### **Anthropometric clothing measurements from 3D body scans**

Yan, S., Wirta, J. & Kämäräinen, J-K., 2020, In : *Machine Vision and Applications*. 31, 1-2, 11 p., 7.

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

### **Censor-Based Cooperative Multi-Antenna Spectrum Sensing with Imperfect Reporting Channels**

Li, M., Alhussein, O., Sofotasios, P. C., Muhaidat, S., Yoo, P. D., Liang, J. & Wang, A., 2020, In : *IEEE Transactions on Sustainable Computing*. 5, 1, p. 48-60 13 p.

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

### **Compressive sensed video recovery via iterative thresholding with random transforms**

Belyaev, E., Codreanu, M., Juntti, M. & Egiazarian, K., 2020, In : *IET Image Processing*. 14, 6, p. 1187-1200 14 p.

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

### **Does code quality affect pull request acceptance? An empirical study**

Lenarduzzi, V., Nikkola, V., Saarimäki, N. & Taibi, D., 2020, In : *Journal of Systems and Software*. 171, 14 p., 110806.

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

### **Does migrating a monolithic system to microservices decrease the technical debt?**

Lenarduzzi, V., Lomio, F., Saarimäki, N. & Taibi, D., 2020, In : *Journal of Systems and Software*. 169, 16 p., 110710.

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

### **Exploration and exploitation of sensorimotor contingencies for a cognitive embodied agent**

Houbre, Q., Angleraud, A. & Pieters, R., 2020, *ICAART 2020 - Proceedings of the 12th International Conference on Agents and Artificial Intelligence*. Rocha, A., Steels, L. & van den Herik, J. (eds.). SCITEPRESS, Vol. 2. p. 546-554 9 p.

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

### **FinnForest dataset: A forest landscape for visual SLAM**

Ali, I., Durmush, A., Suominen, O., Yli-Hietanen, J., Peltonen, S., Collin, J. & Gotchev, A., 2020, In : *ROBOTICS AND AUTONOMOUS SYSTEMS*. 132, 13 p., 103610.

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, E. & Michalas, A., 2020, *IoTBDs 2020 - Proceedings of the 5th International Conference on Internet of Things, Big Data and Security*. Wills, G., Kacsuk, P. & Chang, V. (eds.). SCITEPRESS, p. 101-111 11 p.

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

#### **Multimodal subspace support vector data description**

Sohrab, F., Raitoharju, J., Iosifidis, A. & Gabbouj, M., 2020, In : *Pattern Recognition*. 110, 13 p., 107648.  
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, M. T., Lenarduzzi, V., Romano, S. & Saarimäki, N., 2020, In : *Information and Software Technology*. 128, 18 p., 106377.  
Research output: Contribution to journal › Article › Scientific › peer-review

#### **Patterns for serverless functions (Function-as-a-Service): A multivocal literature review**

Taibi, D., El Ioini, N., Pahl, C. & Niederkofler, J. R. S., 2020, *CLOSER 2020 - Proceedings of the 10th International Conference on Cloud Computing and Services Science*. Ferguson, D., Helfert, M. & Pahl, C. (eds.). SCITEPRESS, Vol. 1. p. 181-192 12 p.  
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, P., Mustalahti, P., Launis, S. & Mattila, J., 2020, *2020 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM 2020*. IEEE, p. 1387-1393 7 p. (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, W., Vagharshakyan, S., Sjostrom, M., Gotchev, A., Bregovic, R. & Olsson, R., 2020, In : *IEEE Transactions on Image Processing*. 29, p. 4269-4280 12 p.  
Research output: Contribution to journal › Article › Scientific › peer-review

#### **User experience of stereo and spatial audio in 360° live music videos**

Holm, J., Väänänen, K. & Battah, A., 2020, *AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere*. ACM, p. 134-141 8 p.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

#### **Validating effectiveness of safety requirements' compliance evaluation in process assessments**

Varkoi, T., Mäkinen, T., Cameron, F. & Nevalainen, R., 2020, In : *Journal of Software: Evolution and Process*. 32, 3, 16 p., e2177.  
Research output: Contribution to journal › Article › Scientific › peer-review

#### **A preliminary network analysis on steam game tags: Another way of understanding game genres**

Li, X. & Zhang, B., 29 Jan 2020, *AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 29-30, 2020, Tampere, Finland*. ACM, p. 65-73 9 p.  
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, N., Kaipainen, K., Kähkönen, K. & Ahtinen, A., 29 Jan 2020, *AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere*. ACM, p. 10-19 10 p.  
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, H., Koivisto, J. & Hamari, J., 29 Jan 2020, *AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere*. ACM, p. 74-82 9 p.  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

#### **Innovation challenges as a novel multidisciplinary learning platform**

Jokiniemi, S., Myllärniemi, J., Poranen, T. & Vuorenmaa, M., 29 Jan 2020, *AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere*. ACM, p. 145-148 4 p.  
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, M. & Hamari, J., 29 Jan 2020, *AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere*. ACM, p. 120-125 6 p.

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, M., Ahtinen, A. & Turunen, M., 29 Jan 2020, *AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere*. ACM, p. 168-169 2 p.

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, A., Ahtinen, A. & Kaipainen, K., 29 Jan 2020, *AcademicMindtrek 2020 - Proceedings of the 23rd International Academic Mindtrek Conference: January 2020, Tampere*. ACM, p. 1-9 9 p.

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

**A custom processor for protocol-independent packet parsing**

Zolfaghari, H., Rossi, D. & Nurmi, J., 1 Feb 2020, In : *Microprocessors and Microsystems*. 72, 11 p.

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

**Are SonarQube Rules Inducing Bugs?**

Lenarduzzi, V., Lomio, F., Huttunen, H. & Taibi, D., 1 Feb 2020, *SANER 2020 - Proceedings of the 2020 IEEE 27th International Conference on Software Analysis, Evolution, and Reengineering*. Kontogiannis, K., Khomh, F., Chatzigeorgiou, A., Fokaefs, M-E. & Zhou, M. (eds.). IEEE, p. 501-511 11 p.

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., 1 Mar 2020, In : *Signal Processing*. 168, 107330.

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

**Serverless: What it Is, What to Do and What Not to Do**

Nupponen, J. & Taibi, D., 1 Mar 2020, *2020 IEEE International Conference on Software Architecture Companion, ICSCA-C 2020*. IEEE, p. 49-50 2 p.

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, E. & Michalas, A., 30 Mar 2020, *35th Annual ACM Symposium on Applied Computing, SAC 2020*. ACM, p. 767-769 3 p.

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, N., Tefas, A., Kannianen, J., Gabbouj, M. & Iosifidis, A., 1 May 2020, *2020 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2020 - Proceedings*. IEEE, p. 1713-1717 5 p. (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, M., Zhu, H., Wang, H., Koucheryavy, Y., Samouylov, K. & Qian, H., 1 May 2020, *2020 IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP 2020 - Proceedings*. IEEE, p. 5035-5039 5 p. (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, A., Viitanen, M., Mercat, A. & Vanne, J., 27 May 2020, *MMSys 2020 - Proceedings of the 2020 Multimedia Systems Conference*. ACM, p. 237-242 6 p.

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

**Flow-bounded trajectory-scaling algorithm for hydraulic robotic manipulators**

Lampinen, S., Niemi, J. & Mattila, J., 1 Jul 2020, *2020 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM 2020*. IEEE, p. 619-624 6 p. (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, M., Dehmer, M., Cao, S., Feng, L., Tao, J. & Emmert-Streib, F., 1 Jul 2020, In : *Information Sciences*. 524, p. 199-215 17 p.

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

**Using Deep Learning for price prediction by exploiting stationary limit order book features**

Tsantekidis, A., Passalis, N., Tefas, A., Kannianen, J., Gabbouj, M. & Iosifidis, A., 1 Aug 2020, In : *Applied Soft Computing Journal*. 93, 106401.

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, E., 1 Oct 2020, In : *Information Sciences*. 536, p. 351-357 7 p.

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, V., Saarimäki, N. & Taibi, D., Dec 2020, In : *Journal of Systems and Software*. 170, 15 p., 110750.

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

**Tailored gamification: A review of literature**

Klock, A. C. T., Gasparini, I., Pimenta, M. S. & Hamari, J., 1 Dec 2020, In : *International Journal of Human Computer Studies*. 144, 102495.

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, N. Z., Xi, N., Hamari, J., Karpouzis, K. & Assimakopoulos, V., 1 Dec 2020, In : *International Journal of Human Computer Studies*. 144, 102496.

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