

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

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

5G new radio evolution towards sub-THz communications

Tervo, O., Levanen, T., Pajukoski, K., Hulkkonen, J., Wainio, P. & Valkama, M., 1 Mar 2020, *2nd 6G Wireless Summit 2020: Gain Edge for the 6G Era, 6G SUMMIT 2020*. IEEE, 6 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › 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

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

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., Alhusein, 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

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

Energy Efficiency Analysis of Collaborative Compressive Sensing Scheme in Cognitive Radio Networks

Kishore, R., Gurugopinath, S., Muhaidat, S., Sofotasios, P. C., Dianati, M. & Al-Dhahir, N., 2020, In : *IEEE Transactions on Cognitive Communications and Networking*. 6, 3, p. 1056-1068 13 p.

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

Vehicle Attribute Recognition by Appearance: Computer Vision Methods for Vehicle Type, Make and Model Classification
Ni, X. & Huttunen, H., 2020, In : Journal of Signal Processing Systems.

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

Gamified coding: Toy robots and playful learning in early education

Heljakka, K., Ihamaki, P., Tuomi, P. & Saarikoski, P., 1 Dec 2019, *Proceedings - 6th Annual Conference on Computational Science and Computational Intelligence, CSCI 2019*. IEEE, p. 800-805 6 p. 9071010

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

Optimized wake-up scheme with bounded delay for energy-efficient MTC

Rostami, S., Lagen, S., Costa, M., Dini, P. & Valkama, M., 1 Dec 2019, *2019 IEEE Global Communications Conference, GLOBECOM 2019 - Proceedings*. IEEE, 9013534

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

Prototyping directional UAV-based wireless access and backhaul systems

Gerasimenko, M., Pokorny, J., Schneider, T., Sirjov, J., Andreev, S. & Hosek, J., 1 Dec 2019, *2019 IEEE Global Communications Conference, GLOBECOM 2019 - Proceedings*. IEEE, 9014228

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › 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

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

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

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

The Double Shadowed κ - μ 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

Towards Algebraic Modeling of GPU Memory Access for Bank Conflict Mitigation

Ferranti, L. & Boutellier, J., 1 Oct 2019, *2019 IEEE International Workshop on Signal Processing Systems, SiPS 2019*. IEEE, p. 103-108 6 p.

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

An approval of MPPT based on pv cell's simplified equivalent circuit during fast-shading conditions

Rajput, S., Averbukh, M., Yahalom, A. & Minav, T., 1 Sep 2019, In : *Electronics (Switzerland)*. 8, 9, 14 p., 1060.
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

2-volt Solution-Processed, Indium Oxide (In₂O₃) Thin Film Transistors on flexible Kapton

Bhalerao, S. R., Lupo, D. & Berger, P. R., 1 Aug 2019, *2019 IEEE International Flexible Electronics Technology Conference, IFETC 2019*. IEEE, 3 p.

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

6K and 8K effective resolution with 4K HEVC decoding capability for 360 video streaming

Zare, A., Homayouni, M., Aminlou, A., Hannuksela, M. M. & Gabbouj, M., 1 Aug 2019, In : *ACM Transactions on Multimedia Computing, Communications and Applications*. 15, 2s, 68.

Research output: Contribution to journal › Article › 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

AEx: Automated Customization of Exposed Datapath Soft-Cores

Hirvonen, A., Tervo, K., Kultala, H. & Jääskeläinen, P., Aug 2019, *Proceedings - Euromicro Conference on Digital System Design, DSD 2019*. Konofaos, N. & Kitsos, P. (eds.). IEEE, p. 35-42 8 p. (Proceedings - Euromicro Conference on Digital System Design, DSD 2019).

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

Blockchain Technology for Smartphones and Constrained IoT Devices: A Future Perspective and Implementation

Zhidanov, K., Bezzateev, S., Afanasyeva, A., Sayfullin, M., Vanurin, S., Bardinova, Y. & Ometov, A., 1 Jul 2019, *21st IEEE Conference on Business Informatics, CBI 2019*. Becker, J., Pastor, O., Kornysheva, E., Korepanov, V. O., Tsukanova, O. A., Albornoz, J. B., Fedyanin, D., Burkov, V. N., Nazarov, D. M., Novikov, D., Uskenbaeva, R. & Shchepkin, A. V. (eds.). IEEE, p. 20-27 8 p. 8808043

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

Input magnitude data setting in error-reduction algorithm for one-dimensional discrete phase retrieval problem

Rusu, C. & Astola, J., 1 Jul 2019, *ISSCS 2019 - International Symposium on Signals, Circuits and Systems*. IEEE, 8801743

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

Acceptance and perceptions of interactive location-tracking displays

Mäkelä, V., Linna, J., Keskinen, T., Hakulinen, J. & Turunen, M., 12 Jun 2019, *Pervasive Displays 2019 - 8th ACM International Symposium on Pervasive Displays, PerDis 2019*. Gentile, V. & Cauchard, J. R. (eds.). ACM, a17

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

Socially inspired relaying and proactive mode selection in mmWave vehicular communications

Moltchanov, D., Kovalchukov, R., Gerasimenko, M., Andreev, S., Koucheryavy, Y. & Gerla, M., 1 Jun 2019, In : *IEEE Internet of Things Journal*. 6, 3, p. 5172-5183 12 p.

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

Opportunistic ambient backscatter communication in RF-Powered cognitive radio networks

Kishore, R., Gurugopinath, S., Sofotasios, P. C., Muhaidat, S. & Al-Dhahir, N., Jun 2019, In : *IEEE Transactions on Cognitive Communications and Networking*. 5, 2, p. 413-426 14 p., 8672817.

Research output: Contribution to journal › Article › 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

Asterism: Decentralized file sharing application for mobile devices

Heinisuo, O-P., Lenarduzzi, V. & Taibi, D., 9 May 2019, *2019 7th IEEE International Conference on Mobile Cloud Computing, Services, and Engineering, MobileCloud 2019*. IEEE, p. 38-47 10 p.

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

Artificial intelligence yesterday, today and tomorrow

Jaakkola, H., Henno, J., Mäkelä, J. & Thalheim, B., 1 May 2019, *2019 42nd International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2019 - Proceedings*. Skala, K., Car, Z., Pale, P., Huljenic, D., Janjic, M., Koracic, M., Sruk, V., Ribaric, S., Grbac, T. G., Butkovic, Z., Cicin-Sain, M., Skvorc, D., Mauher, M., Babic, S., Gros, S., Vrdoljak, B. & Tijan, E. (eds.). IEEE, p. 860-867 8 p.

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

Error analysis of NOMA-based user cooperation with SWIPT

Li, S., Bariah, L., Muhaidat, S., Sofotasios, P., Liang, J. & Wang, A., 1 May 2019, *Proceedings - 15th Annual International Conference on Distributed Computing in Sensor Systems, DCOSS 2019*. IEEE, p. 507-513 7 p.

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

Intelligent data service for farmers

Linna, P., Narra, N. & Grönman, J., 1 May 2019, *2019 42nd International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2019 - Proceedings*. Skala, K., Car, Z., Pale, P., Huljenic, D., Janjic, M., Koracic, M., Sruk, V., Ribaric, S., Grbac, T. G., Butkovic, Z., Cicin-Sain, M., Skvorc, D., Mauher, M., Babic, S., Gros, S., Vrdoljak, B. & Tijan, E. (eds.). IEEE, p. 1072-1075 4 p.

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

Reducing crossbar costs in the match-action pipeline

Zolfaghari, H., Rossi, D. & Nurmi, J., 1 May 2019, *2019 IEEE 20th International Conference on High Performance Switching and Routing, HPSR 2019*. IEEE, (IEEE International Conference on High Performance Switching and Routing, HPSR).

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

Teaching for virtual work

Henno, J., Jaakkola, H. & Mäkelä, J., 1 May 2019, *2019 42nd International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2019 - Proceedings*. Skala, K., Car, Z., Pale, P., Huljenic, D., Janjic, M., Koracic, M., Sruk, V., Ribaric, S., Grbac, T. G., Butkovic, Z., Cicin-Sain, M., Skvorc, D., Mauher, M., Babic, S., Gros, S., Vrdoljak, B. & Tijan, E. (eds.). IEEE, p. 818-826 9 p.

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

A Semantic Meta-Model Repository for Lightweight M2M

Silverajan, B., Zhao, H. & Kamath, A., 11 Apr 2019, *2018 IEEE International Conference on Communication Systems, ICCS 2018*. IEEE, p. 468-472 5 p.

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

Exploiting Multipath Terahertz Communications for Physical Layer Security in beyond 5G Networks

Petrov, V., Moltchanov, D., Jornet, J. M. & Koucheryavy, Y., 1 Apr 2019, *INFOCOM 2019 - IEEE Conference on Computer Communications Workshops, INFOCOM WKSHPS 2019*. IEEE, p. 865-872 8 p.

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

Sensing-throughput tradeoff for superior selective reporting-based spectrum sensing in energy harvesting HCRNs

Kishore, R., Gurugopinath, S., Muhaidat, S., Sofotasios, P. C., Dobre, O. A. & Al-Dhahir, N., 22 Mar 2019, In : *IEEE Transactions on Cognitive Communications and Networking* . 5, 2, p. 330-341 12 p., 8672813.

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

Advancements in Solution Processable Devices using Metal Oxides For Printed Internet-of-Things Objects

Berger, P. R., Li, M., Mattei, R. M., Niang, M. A., Talisa, N., Tripepi, M., Harris, B., Bhalerao, S. R., Chowdhury, E. A., Winter, C. H. & Lupo, D., 1 Mar 2019, *2019 Electron Devices Technology and Manufacturing Conference, EDTM 2019*. IEEE, p. 160-162 3 p.

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

A Framework for Design and Implementation of Adaptive Digital Predistortion Systems

Li, L., Deaville, P., Sapio, A., Anttila, L., Valkama, M., Wolf, M. & Bhattacharyya, S. S., 1 Mar 2019, *Proceedings 2019 IEEE International Conference on Artificial Intelligence Circuits and Systems, AICAS 2019*. IEEE, p. 112-116 5 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › 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

Elastic Neural Networks for Classification

Zhou, Y., Bai, Y., Bhattacharyya, S. S. & Huttunen, H., 1 Mar 2019, *Proceedings 2019 IEEE International Conference on Artificial Intelligence Circuits and Systems, AICAS 2019*. IEEE, p. 251-255 5 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › 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

LordCore: Energy-Efficient OpenCL-Programmable Software-Defined Radio Coprocessor

Kultala, H., Viitanen, T., Berg, H., Jääskeläinen, P., Multanen, J., Kokkonen, M., Raiskila, K., Zetterman, T. & Takala, J., 26 Feb 2019, In : *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*. 27, 5, p. 1029-1042

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

ALMARVI System Solution for Image and Video Processing in Healthcare, Surveillance and Mobile Applications

Al-Ars, Z., van der Vlugt, S., Jääskeläinen, P. & van der Linden, F., Jan 2019, In : *Journal of Signal Processing Systems*. 91, 1, p. 1-7

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

Digital Predistortion for 5G Small Cell: GPU Implementation and RF Measurements

Pascual Campo, P., Lampu, V., Meirhaeghe, A., Boutellier, J., Anttila, L. & Valkama, M., 2019, In : *Journal of Signal Processing Systems*. 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

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

Efficient Solving of Markov Decision Processes on GPUs Using Parallelized Sparse Matrices

Sapio, A., Bhattacharyya, S. S. & Wolf, M., Dec 2018, *2018 Conference on Design and Architectures for Signal and Image Processing, DASIP 2018*. IEEE COMPUTER SOCIETY PRESS, p. 13-18 6 p. (Conference on Design and Architectures for Signal and Image Processing, DASIP).

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

A Low-Cost High-Speed Self-Checking Carry Select Adder with Multiple-Fault Detection

Valinataj, M., Mohammadnejad, A. & Nurmi, J., Nov 2018, In : *Microelectronics journal*. 81, p. 16-27 12 p.

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

Toward Efficient Execution of RVC-CAL Dataflow Programs on Multicore Platforms

Hautala, I., Boutellier, J., Nyländén, T. & Silvén, O., Nov 2018, In : *Journal of Signal Processing Systems*. 90, 11, p. 1507-1517 11 p.

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

Visualization of memory map information in embedded system design

Teuho, M., Pekkarinen, E. & Hämäläinen, T. D., 12 Oct 2018, *Proceedings - 21st Euromicro Conference on Digital System Design, DSD 2018*. IEEE, p. 163-166 4 p. 8491811

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

Olfactory display prototype for presenting and sensing authentic and synthetic odors

Salminen, K., Rantala, J., Isokoski, P., Lehtonen, M., Müller, P., Karjalainen, M., Väliäho, J., Kontunen, A., Nieminen, V., Leivo, J., Telembeci, A. A., Lekkala, J., Kallio, P. & Surakka, V., 2 Oct 2018, *ICMI 2018 - Proceedings of the 2018 International Conference on Multimodal Interaction*. ACM, p. 73-77 5 p.

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

Visualization in the integrated SimPhoNy multiscale simulation framework

Adler, J., Kulju, S., Hyväluoma, J., Mattila, K., Choi, K., Tziakos, I., Pinte, D., García, G. A., Makushok, Y., Makushok, V., Lama, J., Román-Pérez, G., Hashibon, A., Sadeghi, M., Franklin, N. & Silverman, A., 1 Oct 2018, In : *Computer Physics Communications*. 231, p. 45-61 17 p.

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

Energy-Delay Trade-offs in Instruction Register File Design

Multanen, J., Kultala, H. & Jääskeläinen, P., Oct 2018, *2018 IEEE Nordic Circuits and Systems Conference (NORCAS): NORCHIP and International Symposium of System-on-Chip (SoC)*. IEEE

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

Guest Editorial Special Issue on Multimedia Big Data in Internet of Things

Ma, H., Yu, S., Gabbouj, M. & Mueller, P., Oct 2018, In : *IEEE Internet of Things Journal*. 5, 5, p. 3405-3407 3 p., 8534720.

Research output: Contribution to journal > Editorial > Scientific

LoTTA: Energy-Efficient Processor for Always-on Applications

Multanen, J., Kultala, H., Jääskeläinen, P., Viitanen, T., Tervo, A. & Takala, J., Oct 2018, *2018 IEEE International Workshop on Signal Processing Systems (SiPS)*. IEEE

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

A Framework for Data Collection, Transformation and Processing in Industrial Systems

Iftikhar, U., Mohammed, W. M., Ferrer, B. R. & Lastra, J. L. M., 24 Sep 2018, *Proceedings - IEEE 16th International Conference on Industrial Informatics, INDIN 2018*. Institute of Electrical and Electronics Engineers Inc., p. 707-712 6 p. 8471996. (IEEE International Conference on Industrial Informatics).

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

An ISA-95 based Ontology for Manufacturing Systems Knowledge Description Extended with Semantic Rules

Seyedamir, A., Ferrer, B. R. & Lastra, J. L. M., 24 Sep 2018, *Proceedings - IEEE 16th International Conference on Industrial Informatics, INDIN 2018*. Institute of Electrical and Electronics Engineers Inc., p. 374-380 7 p. 8471929. (IEEE International Conference on Industrial Informatics).

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

Supporting a Cloud Platform with Streams of Factory Shop Floor Data in the Context of the Industry 4.0

Mohammed, W. M., Ferrer, B. R., Iftikhar, U., Lastra, J. L. M. & Simarro, J. H., 24 Sep 2018, *Proceedings - IEEE 16th International Conference on Industrial Informatics, INDIN 2018*. Institute of Electrical and Electronics Engineers Inc., p. 786-791 6 p. 8471981. (IEEE International Conference on Industrial Informatics).

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

Towards the Adoption of Cyber-Physical Systems of Systems Paradigm in Smart Manufacturing Environments

Ferrer, B. R., Mohammed, W. M., Martinez Lastra, J. L., Villalonga, A., Beruvides, G., Castano, F. & Haber, R. E., 24 Sep 2018, *Proceedings - IEEE 16th International Conference on Industrial Informatics, INDIN 2018*. Institute of Electrical and Electronics Engineers Inc., p. 792-799 8 p. 8472061. (IEEE International Conference on Industrial Informatics).

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

Dimensional analysis conceptual modeling supporting adaptable reasoning in simulation-based training

Coatanea, E. & Roca, R., 7 Aug 2018, *2018 13th System of Systems Engineering Conference, SoSE 2018*. IEEE, p. 245-252 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

Effects of blockage in deploying mmWave drone base stations for 5g networks and beyond

Gapeyenko, M., Bor-Yaliniz, I., Andreev, S., Yanikomeroğlu, H. & Koucheryavy, Y., 3 Jul 2018, *2018 IEEE International Conference on Communications Workshops*. IEEE, p. 1-6 6 p.

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

Modeling and cancellation of self-interference in full-duplex radio transceivers: Volterra series-based approach

Korpi, D., Turunen, M., Anttila, L. & Valkama, M., 3 Jul 2018, *2018 IEEE International Conference on Communications Workshops*. IEEE, p. 1-6 6 p.

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

Optimizing wirelessly powered crowd sensing: Trading energy for data

Li, X., You, C., Andreev, S., Gong, Y. & Huang, K., 3 Jul 2018, *2018 IEEE International Conference on Communications Workshops*. IEEE, p. 1-6 6 p.

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

Cybersecurity Attacks and Defences for Unmanned Smart Ships

Silverajan, B., Ocaik, M. & Nagel, B., 1 Jul 2018, *Proceedings - IEEE 2018 International Congress on Cybermatics: 2018 IEEE Conferences on Internet of Things, Green Computing and Communications, Cyber, Physical and Social Computing, Smart Data, Blockchain, Computer and Information Technology, iThings/GreenCom/CPSCoM/SmartData/Blockchain/CIT 2018*. IEEE, p. 15-20 6 p.

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

Secure Firmware Updates for IoT: A Survey

Kolehmainen, A., 1 Jul 2018, *Proceedings - IEEE 2018 International Congress on Cybermatics: 2018 IEEE Conferences on Internet of Things, Green Computing and Communications, Cyber, Physical and Social Computing, Smart Data, Blockchain, Computer and Information Technology, iThings/GreenCom/CPSCoM/SmartData/Blockchain/CIT 2018*. IEEE, p. 112-117 6 p.

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

Adjusting university education with workspace training and self-education

Henno, J., Jaakkola, H. & Makela, J., 28 Jun 2018, *2018 41st International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2018*. IEEE, p. 701-708 8 p.

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

Role of the user in information systems development

Jaakkola, H., Thalheim, B., Henno, J., Mäkelä, J. & Keto, H., 28 Jun 2018, *2018 41st International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2018*. IEEE, p. 625-632 8 p.

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

An approach for implementing key performance indicators of a discrete manufacturing simulator based on the ISO 22400 standard

Muhammad, U., Ferrer, B. R., Mohammed, W. M. & Lastra, J. L. M., 15 Jun 2018, *2018 IEEE Industrial Cyber-Physical Systems, ICPS 2018*. IEEE, p. 629-636 8 p.

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

Towards the deployment of cloud robotics at factory shop floors: A prototype for smart material handling

Hussnain, A., Ferrer, B. R. & Lastra, J. L. M., 15 Jun 2018, *2018 IEEE Industrial Cyber-Physical Systems, ICPS 2018*. IEEE, p. 44-50 7 p.

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

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

Analysis of differentially modulated cooperative communications over asymmetric fading channels

Almaeeni, S., Sofotasios, P. C., Muhaidat, S. & Karagiannidis, G. K., 16 May 2018, *Proceedings - 2018 International Conference on Advanced Communication Technologies and Networking, CommNet 2018*. IEEE, p. 1-8 8 p.

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

Capacity analysis under generalized composite fading conditions

Sofotasios, P. C., Yoo, S. K., Bhargav, N., Muhaidat, S., Cotton, S. L., Matthaïou, M., Valkama, M. & Karagiannidis, G. K., 16 May 2018, *Proceedings - 2018 International Conference on Advanced Communication Technologies and Networking, CommNet 2018*. IEEE, p. 1-10 10 p.

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

Maximum achievable throughput and interference mitigation for SUN in coexistence with WLAN

Mohamed, S., Hamila, R., Al-Dhahir, N., Gouisse, A., Benbrahim, L. & Gabbouj, M., 16 May 2018, *Proceedings - 2018 International Conference on Advanced Communication Technologies and Networking, CommNet 2018*. IEEE, p. 1-6 6 p.

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

Outage probability of multi-carrier NOMA systems under joint I/Q imbalance

Selim, B., Muhaidat, S., Sofotasios, P. C., Sharif, B. S., Stouraitis, T., Karagiannidis, G. K. & Al-Dhahir, N., 16 May 2018, *Proceedings - 2018 International Conference on Advanced Communication Technologies and Networking, CommNet 2018*. IEEE, p. 1-7 7 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › 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

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

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

Analyzing Effects of Directional Deafness on mmWave Channel Access in Unlicensed Bands

Galinina, O., Pyattaev, A., Johnsson, K., Andreev, S. & Koucheryavy, Y., 24 Jan 2018, *2017 IEEE Globecom Workshops, GC Wkshps 2017 - Proceedings*. IEEE, p. 1-7 7 p.
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Detailed Interference Analysis in Dense mmWave Systems Employing Dual-Polarized Antennas

Solomitckii, D., Petrov, V., Nikopour, H., Akdeniz, M., Orhan, O., Himayat, N., Talwar, S., Andreev, S. & Koucheryavy, Y., 24 Jan 2018, *2017 IEEE Globecom Workshops*. IEEE, p. 1-6 6 p.
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Modeling Three-Dimensional Interference and SIR in Highly Directional mmWave Communications

Kovalchukov, R., Samuylov, A., Moltchanov, D., Ometov, A., Andreev, S., Koucheryavy, Y. & Samouylov, K., 10 Jan 2018, *2017 IEEE Global Communications Conference, GLOBECOM 2017*. IEEE, p. 1-7 7 p.
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Advanced wireless m-bus platform for intensive field testing in industry 4.0-based systems

Masek, P., Hudec, D., Krejci, J., Ometov, A., Hosek, J., Andreev, S., Kröplf, F. & Koucheryavy, Y., 2018, *24th European Wireless Conference*. VDE Verlag, p. 150-155 6 p.
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Exposed Datapath optimizations for Loop Scheduling

Kultala, H., Jääskeläinen, P., IJzerman, J., Lehtonen, L., Viitanen, T., Mäkitalo, M. & Takala, J., 2018, *Embedded Computer Systems: Architectures, Modeling, and Simulation 2017 IEEE International Conference (IC-SAMOS 2017)*. IEEE, p. 171-178 8 p.
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › 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

Model-Based Dynamic Scheduling for Multicore Signal Processing

Wu, J., Blattner, T., Keyrouz, W. & Bhattacharyya, S. S., 2018, In : *Journal of Signal Processing Systems*. p. 1-14 14 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Outlier edge detection using random graph generation models and applications

Zhang, H., Kiranyaz, S. & Gabbouj, M., 1 Dec 2017, In : *Journal of Big Data*. 4, 1, 11.
Research output: Contribution to journal › Article › Scientific › peer-review

Model-based dynamic scheduling for multicore implementation of image processing systems

Wu, J., Blattner, T., Keyrouz, W. & Bhattacharyya, S. S., 14 Nov 2017, *2017 IEEE International Workshop on Signal Processing Systems, SiPS 2017*. IEEE, 8110003
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Evaluation of a Heterogeneous Multicore Architecture by Design and Test of an OFDM Receiver

Nouri, S., Hussain, W. & Nurmi, J., 1 Nov 2017, In : IEEE Transactions on Parallel and Distributed Systems. p. 3171 3187 p.

Research output: Contribution to journal › Article › 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

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

Design and implementation of adaptive signal processing systems using Markov decision processes

Li, L., Sapio, A. E., Wu, J., Liu, Y., Lee, K., Wolf, M. & Bhattacharyya, S. S., 28 Jul 2017, *2017 IEEE 28th International Conference on Application-Specific Systems, Architectures and Processors, ASAP 2017*. IEEE, p. 170-175 6 p.

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

Analysis of multipath propagation for 5G system at higher frequencies in microcellular environment

Sheikh, M. U. & Lempiäinen, J., 19 Jul 2017, *2017 13th International Wireless Communications and Mobile Computing Conference, IWCMC 2017*. IEEE, p. 1660-1664 5 p.

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

Angular wall loss model and Extended Building Penetration model for outdoor to indoor propagation

Sheikh, M. U., Hiltunen, K. & Lempiäinen, J., 19 Jul 2017, *2017 13th International Wireless Communications and Mobile Computing Conference, IWCMC 2017*. IEEE, p. 1291-1296 6 p.

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

Feasibility of self-backhauling in full-duplex radio access systems under QoS constraints

Korpi, D., Riihonen, T. & Valkama, M., 29 Jun 2017, *2017 IEEE International Conference on Communications Workshops, ICC Workshops 2017*. IEEE, p. 749-754 6 p.

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

On the prospects of full-duplex military radios

Riihonen, T., Korpi, D., Rantula, O. & Valkama, M., 23 Jun 2017, *2017 International Conference on Military Communications and Information Systems, ICMCIS 2017*. IEEE

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

Guest Editorial: Implementation Issues in System-on-Chip

Ellervee, P. & Nurmi, J., 1 Jun 2017, In : Journal of Signal Processing Systems. 87, 3, p. 269-270 2 p.

Research output: Contribution to journal › Editorial › Scientific

Power Mitigation by Performance Equalization in a Heterogeneous Reconfigurable Multicore Architecture

Hussain, W., Hoffmann, H., Ahonen, T. & Nurmi, J., Jun 2017, In : Journal of Signal Processing Systems. 87, 3, p. 287-297 11 p.

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

Comparing the Built-In Application Architecture Models in the Web Browser

Taivalasaari, 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

Low power design methodology for signal processing systems using lightweight dataflow techniques

Li, L., Fanni, T., Viitanen, T., Xie, R., Palumbo, F., Raffo, L., Huttunen, H., Takala, J. & Bhattacharyya, S. S., 13 Feb 2017, *DASIP 2016 - Proceedings of the 2016 Conference on Design and Architectures for Signal and Image Processing*. IEEE COMPUTER SOCIETY PRESS, p. 82-89 8 p.

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

Experimental evaluation of dynamic licensed shared access operation in live 3GPP LTE system

Masek, P., Mokrov, E., Pyattaev, A., Zeman, K., Ponomarenko-Timofeev, A., Samuylov, A., Sopin, E., Hosek, J., Gudkova, I. A., Andreev, S., Novotny, V., Koucheryavy, Y. & Samouylov, K., 2 Feb 2017, *2016 IEEE Global Communications Conference (GLOBECOM)*. IEEE

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > 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

A Hybrid Task Graph Scheduler for High Performance Image Processing Workflows

Blattner, T., Keyrouz, W., Bhattacharyya, S. S., Halem, M. & Brady, M., 2017, In : *Journal of Signal Processing Systems*. 89, 3, p. 457-467 11 p.

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

Data Flow Algorithms for Processors with Vector Extensions: Handling Actors With Internal State

Barford, L., Bhattacharyya, S. S. & Liu, Y., 2017, In : *Journal of Signal Processing Systems*. 87, 1, p. 21-31

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

Design Flow for GPU and Multicore Execution of Dynamic Dataflow Programs

Boutellier, J. & Nyländén, T., 2017, In : *Journal of Signal Processing Systems*. 89, 3, p. 469-478 10 p.

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

Exploiting D2D communications at the network edge for mission-critical IoT applications

Orsino, A., Farris, I., Militano, L., Araniti, G., Andreev, S., Gudkova, I. A., Koucheryavy, Y. & Iera, A., 2017, *European Wireless 2017 - 23rd European Wireless Conference*. VDE

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

Implementation of a Multirate Resampler for Multi-carrier Systems on GPUs

Kim, S. C. & Bhattacharyya, S. S., 2017, In : *Journal of Signal Processing Systems*. 89, 3, p. 445-455 11 p.

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

Parallel Digital Predistortion Design on Mobile GPU and Embedded Multicore CPU for Mobile Transmitters

Li, K., Ghazi, A., Tarver, C., Boutellier, J., Abdelaziz, M., Anttila, L., Juntti, M., Valkama, M. & Cavallaro, J. R., 2017, In : *Journal of Signal Processing Systems*. 89, 3, p. 417-430 14 p.

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

Wireless M-bus in industrial IoT: Technology overview and prototype implementation

Zeman, K., Masek, P., Krejci, J., Ometov, A., Hosek, J., Andreev, S. & Kröpfel, F., 2017, *European Wireless 2017 - 23rd European Wireless Conference*. VDE

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

Xor-Masking: A Novel Statistical Method for Instruction Read Energy Reduction in Contemporary SRAM Technologies

Multanen, J., Viitanen, T., Jääskeläinen, P. & Takala, J., 12 Dec 2016, *2016 IEEE International Workshop on Signal Processing Systems (SiPS)*. IEEE, 6 p.

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

Models of architecture: Reproducible efficiency evaluation for signal processing systems

Pelcat, M., Desnos, K., Maggiani, L., Liu, Y., Heulot, J., Nezan, J. F. & Bhattacharyya, S. S., 9 Dec 2016, *IEEE International Workshop on Signal Processing Systems, SiPS 2016*. IEEE, p. 121-126 6 p. 7780083. (IEEE International Workshop on Signal Processing Systems).

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

Adaptive tracking of people and vehicles using mobile platforms

Ben Salem, H., Damarla, T., Sudusinghe, K., Stechele, W. & Bhattacharyya, S. S., 1 Dec 2016, In : *Eurasip Journal on Advances in Signal Processing*. 2016, 1, 65.

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

Generalized Hampel Filters

Pearson, R. K., Neuvo, Y., Astola, J. & Gabbouj, M., 1 Dec 2016, In : *Eurasip Journal on Advances in Signal Processing*. 2016, 1, 87.

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

Optimization of Flexible Filter Banks Based on Fast Convolution

Yli-Kaakinen, J. & Renfors, M., Aug 2016, In : *Journal of Signal Processing Systems*. 85, 1, p. 101-111

Research output: Contribution to journal › Article › 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

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

Accelerating Computation on an Android Phone with OpenCL Parallelism and Optimizing Workload Distribution between a Phone and a Cloud Service

Wang, K., Nurmi, J. & Ahonen, T., 18 Jul 2016, *2016 Intl IEEE Conferences Ubiquitous Intelligence & Computing, Advanced and Trusted Computing, Scalable Computing and Communications, Cloud and Big Data Computing, Internet of People, and Smart World Congress (UIC/ATC/ScalCom/CBDCOM/IoP/SmartWorld)*. IEEE, p. 636-642

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

Investigating mid-air gestures and handhelds in motion tracked environments

Mäkelä, V., Korhonen, H., Ojala, J., Järvi, A., Väänänen, K., Raisamo, R. & Turunen, M., 20 Jun 2016, *PerDis 2016 - Proceedings of the 5th ACM International Symposium on Pervasive Displays*. ACM, p. 45-51 7 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

Extended Ewald summation technique

Kylänpää, I. & Räsänen, E., 17 May 2016, In : *Computer Physics Communications*. 206, p. 64-68

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

BL-LDA: Bringing bigram to supervised topic model

Park, Y., Alam, M. H., Ryu, W. J. & Lee, S., 2 Mar 2016, *Proceedings - 2015 International Conference on Computational Science and Computational Intelligence, CSCI 2015*. Institute of Electrical and Electronics Engineers Inc., p. 83-88 6 p. 7424068

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

Guest editorial special issue on the internet of nano things

Balasubramaniam, S., Jornet, J. M., Pierobon, M. & Koucheryavy, Y., 1 Feb 2016, In : *IEEE Internet of Things Journal*. 3, 1, p. 1-3 3 p.

Research output: Contribution to journal › Article › Scientific

Supporting deterministic medium access control in wireless vehicular communications

Cruz, C., Ferreira, J. & Oliveira, A., 25 Jan 2016, *2015 IEEE 82nd Vehicular Technology Conference, VTC Fall 2015 - Proceedings*. IEEE

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

Analysis of a receiver-based reliable broadcast approach for vehicular networks

Gholibeigi, M., Heijenk, 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

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

HARP2: An X-Scale Reconfigurable Accelerator-Rich Platform for Massively-Parallel Signal Processing Algorithms

Hussain, W., Airoidi, R., Hoffmann, H., Ahonen, T. & Nurmi, J., 2016, In : *Journal of Signal Processing Systems*. p. 341-353 10.1007/s11265-015-1054-9.

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

IEEE 802.11ac MIMO Transceiver Baseband Processing on a VLIW Processor

Aghababaeetafreshi, M., Lehtonen, L. K., Levanen, T., Valkama, M. & Takala, J., 2016, In : *Journal of Signal Processing Systems*.

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

Instrumentation-Driven Validation of Dataflow Applications

Chukhman, I., Jiao, Y., Salem, H. B. & Bhattacharyya, S. S., 2016, In : *Journal of Signal Processing Systems*. 84, 3, p. 383-397

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

OpenCL Programmable Exposed Datapath High Performance Low-Power Image Signal Processor

Multanen, J., Kultala, H., Koskela, M., Viitanen, T., Jääskeläinen, P., Takala, J., Danielyan, A. & Cruz, C., 2016, *2016 IEEE Nordic Circuits and Systems Conference (NORCAS)*. IEEE, 6 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › 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

BM3D image denoising using heterogeneous computing platforms

Sarjanoja, S., Boutellier, J. & Hannuksela, J., 28 Dec 2015, *DASIP 2015 - Proceedings of the 2015 Conference on Design and Architectures for Signal and Image Processing*. IEEE COMPUTER SOCIETY PRESS, Vol. 2015-December. 7367257
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Reconfigurable computing for future vision-capable devices

López, M. B., Nieto, A., Silván, O., Bóutellier, J. & Vilariño, D. L., 22 Dec 2015, *Proceedings - 2015 International Conference on Embedded Computer Systems: Architectures, Modeling and Simulation, SAMOS 2015*. Institute of Electrical and Electronics Engineers Inc., p. 34-41 8 p. 7363657

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

Binomial Gaussian mixture filter

Raitoharju, M., Ali-Löytty, S. & Piché, R., 2 Dec 2015, In : *Eurasip Journal on Advances in Signal Processing*. 2015, 1, 36.

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

Programming graphics processing units in the RVC-CAL dataflow language

Boutellier, J. & Nyländén, T., 2 Dec 2015, *Electronic Proceedings of the 2015 IEEE International Workshop on Signal Processing Systems, SiPS 2015*. Institute of Electrical and Electronics Engineers Inc., Vol. 2015-December. 7344994

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

Kalman filter with a linear state model for PDR+WLAN positioning and its application to assisting a particle filter

Raitoharju, M., Nurminen, H. & Piché, R., 1 Dec 2015, In : *Eurasip Journal on Advances in Signal Processing*. 2015, 1, 33.

Research output: Contribution to journal › Article › 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

The extended one-dimensional discrete phase retrieval problem

Rusu, C. & Astola, J., 14 Aug 2015, *2015 International Symposium on Signals, Circuits and Systems (ISSCS)*. IEEE

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

Gathering useful programming data; Analysis and insights from real-time collaborative editing

Rantala, M., Soini, J. & Kilamo, T., 15 Jul 2015, *2015 38th International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2015 - Proceedings*. The Institute of Electrical and Electronics Engineers, Inc., p. 229-234 6 p. 7160270

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

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

Towards Trusted eHealth Services in the Cloud

Michalas, A. & Dowsley, R., 1 Jan 2015, *Proceedings - 2015 IEEE/ACM 8th International Conference on Utility and Cloud Computing, UCC 2015*. Institute of Electrical and Electronics Engineers Inc., p. 618-623 6 p. 7431484

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

Digital correction of frequency response mismatches in 2-channel time-interleaved ADCs using adaptive I/Q signal processing

Singh, S., Valkama, M., Epp, M., Anttila, L., Schlecker, W. & Ingber, E., 2015, In : *Analog Integrated Circuits and Signal Processing*. 82, 3, p. 543-555 13 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. & Rähkä, 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

Techno-Economical Comparison of Dynamic DAS and Legacy Macrocellular Densification: Capacity and Cost-Efficiency Analysis of Alternative Deployment Solutions for Outdoor Service Provisioning

Yunas, S. F., Valkama, M. & Niemelä, J., 2015, In : *International Journal of Wireless Information Networks*. 22, 4, p. 312-326

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

A multi-coil wireless power transfer system utilizing dynamic matching for in-vivo and biomedical applications

Bito, J., Cook, B. S. & Tentzeris, M. M., 25 Mar 2014, *2014 Asia-Pacific Microwave Conference Proceedings, APMC 2014*. Institute of Electrical and Electronics Engineers Inc., p. 680-682 3 p. 7067912

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

BIM based schedule control for precast concrete supply chain

Nissilä, J., Heikkilä, R., Romo, I., Malaska, M. & Aho, T., 2014, *31st International Symposium on Automation and Robotics in Construction and Mining, ISARC 2014 - Proceedings*. University of Technology Sydney, p. 667-671 5 p.

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

Implementation of a high-throughput low-latency polyphase channelizer on GPUs Design and Architectures for Signal and Image Processing 2008

Kim, S. C. & Bhattacharyya, S. S., 2014, In : *Eurasip Journal on Advances in Signal Processing*. 2014, 1

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

Federation lifecycle management incorporating coordination of bio-inspired self-management processes

Meskill, B., Balasubramaniam, S., Brennan, R., Feeney, K. & Jennings, B., Dec 2013, In : *JOURNAL OF NETWORK AND SYSTEMS MANAGEMENT*. 21, 4, p. 650-676 27 p.

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

Towards generic embedded multiprocessing for RVC-CAL dataflow programs

Boutellier, J. & Silvén, O., Nov 2013, In : *Journal of Signal Processing Systems*. 73, 2, p. 137-142 6 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

Integration of dataflow-based heterogeneous multiprocessor scheduling techniques in GNU radio

Zaki, G. F., Plishker, W., Bhattacharyya, S. S., Clancy, C. & Kuykendall, J., Feb 2013, In : *Journal of Signal Processing Systems*. 70, 2, p. 177-191 15 p.

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

An efficient GPU implementation of an arbitrary resampling polyphase channelizer

Kim, S. C., Plishker, W. L. & Bhattacharyya, S. S., 2013, *DASIP 2013 - Proceedings of the 2013 Conference on Design and Architectures for Signal and Image Processing*. p. 231-238 8 p. 6661548

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

An IPv6-enabled wireless shoe-mounted platform for health-monitoring

Mariotti, C., Lakafosis, V., Tentzeris, M. M. & Roselli, L., 2013, *WiSNet 2013 - Proceedings: 2013 IEEE Topical Conference on Wireless Sensors and Sensor Networks - 2013 IEEE Radio and Wireless Week, RWW 2013*. p. 46-48 3 p. 6488629

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

Applying the adaptive hybrid flow-Shop scheduling method to schedule a 3GPP LTE physical layer algorithm onto many-core digital signal processors

Heulot, J., Boutellier, J., Pelcat, M., Nezan, J. F. & Aridhi, S., 2013, *Proceedings of the 2013 NASA/ESA Conference on Adaptive Hardware and Systems, AHS 2013*. p. 123-129 7 p. 6604235

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

Automatic hierarchical discovery of quasi-static schedules of RVC-CAL dataflow programs

Boutellier, J., Raulet, M. & Silvén, O., 2013, In : *Journal of Signal Processing Systems*. 71, 1, p. 35-40 6 p.

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

Design space exploration and implementation of RVC-CAL applications using the TURNUS framework

Casale-Brunet, S., Bezati, E., Alberti, C., Roquier, G., Mattavelli, M., Janneck, J. W. & Boutellier, J., 2013, *DASIP 2013 - Proceedings of the 2013 Conference on Design and Architectures for Signal and Image Processing*. p. 341-342 2 p. 6661566

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

High-performance programs by source-level merging of RVC-CAL dataflow actors

Boutellier, J., Ghazi, A., Silvén, O. & Ersfolk, J., 2013, *2013 IEEE Workshop on Signal Processing Systems, SiPS 2013*. Institute of Electrical and Electronics Engineers Inc., p. 360-365 6 p. 6674533

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

Parameterized core functional dataflow graphs and their application to design and implementation of wireless communication systems

Wang, L. H., Shen, C. C. & Bhattacharyya, S. S., 2013, *2013 IEEE Workshop on Signal Processing Systems, SiPS 2013*. Institute of Electrical and Electronics Engineers Inc., p. 1-6 6 p. 6674471

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

Parameterized scheduling of topological patterns in signal processing dataflow graphs

Wang, L. H., Shen, C. C., Wu, S. & Bhattacharyya, S. S., 2013, In : *Journal of Signal Processing Systems*. 71, 3, p. 275-286 12 p.

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

PiMM: Parameterized and interfaced dataflow meta-model for MPSoCs runtime reconfiguration

Desnos, K., Pelcat, M., Nezan, J. F., Bhattacharyya, S. S. & Aridhi, S., 2013, *Proceedings - 2013 International Conference on Embedded Computer Systems: Architectures, Modeling and Simulation, IC-SAMOS 2013*. IEEE COMPUTER SOCIETY PRESS, p. 41-48 8 p. 6621104

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

Programmable implementation of zero-crossing demodulator on an application specific processor

Ghazi, A., Boutellier, J., Hannuksela, J., Shahabuddin, S. & Silvén, O., 2013, *2013 IEEE Workshop on Signal Processing Systems, SiPS 2013*. Institute of Electrical and Electronics Engineers Inc., p. 231-236 6 p. 6674510

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

Scheduling of parallelized synchronous dataflow actors

Zhou, Z., Desnos, K., Pelcat, M., Nezan, J. F., Plishker, W. & Bhattacharyya, S. S., 2013, *2013 International Symposium on System-on-Chip, SoC 2013 - Proceedings*. IEEE COMPUTER SOCIETY PRESS, 6675271

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

Wireless chipless passive microfluidic temperature sensor

Rifai, A., Debourg, E., Bouaziz, S., Traille, A., Pons, P., Aubert, H. & Tentzeris, M., 2013, *2013 Transducers and Eurosensors XXVII: The 17th International Conference on Solid-State Sensors, Actuators and Microsystems, TRANSDUCERS and EUROSENSORS 2013*. p. 1024-1027 4 p. 6626944

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

Application-specific instruction processor for extracting local binary patterns

Boutellier, J., Lundbom, I., Janhunen, J., Ylimainen, J. & Hannuksela, J., 2012, *DASIP 2012 - Proceedings of the 2012 Conference on Design and Architectures for Signal and Image Processing*. p. 82-89 8 p. 6385363

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., Balasubramaniam, S., Kangasharju, J. & Donnelly, W., 2012, *SIGCOMM'12 - Proceedings of the ACM SIGCOMM 2012 Conference Applications, Technologies, Architectures, and Protocols for Computer Communication*. p. 301-302 2 p.

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

GPU-based acceleration of symbol timing recovery

Kim, S. C., Plishker, W. L., Bhattacharyya, S. S. & Cavallaro, J. R., 2012, *DASIP 2012 - Proceedings of the 2012 Conference on Design and Architectures for Signal and Image Processing*. p. 273-280 8 p. 6385393

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

Instrumentation-driven model detection for dataflow graphs

Chukhman, I., Plishker, W. & Bhattacharyya, S. S., 2012, *2012 International Symposium on System on Chip, SoC 2012*. 6376361

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

Mapping parameterized cyclo-static dataflow graphs onto configurable hardware

Kee, H., Shen, C. C., Bhattacharyya, S. S., Wong, I., Rao, Y. & Kornerup, J., 2012, In : *Journal of Signal Processing Systems*. 66, 3, p. 285-301 17 p.

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

Multidimensional dataflow graph modeling and mapping for efficient GPU implementation

Wang, L. H., Shen, C. C., Seetharaman, G., Palaniappan, K. & Bhattacharyya, S. S., 2012, *Proceedings - 2012 IEEE Workshop on Signal Processing Systems, SiPS 2012*. p. 300-305 6 p. 6363272

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

Partial expansion graphs: Exposing parallelism and dynamic scheduling opportunities for DSP applications

Zaki, G. F., Plishker, W., Bhattacharyya, S. S. & Fruth, F., 2012, *Proceedings - 2012 IEEE 23rd International Conference on Application-Specific Systems, Architectures and Processors, ASAP 2012*. p. 86-93 8 p. 6341457

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

Reconfigurable miniature sensor nodes for condition monitoring

Nylander, T., Boutellier, J., Nikunen, K., Hannuksela, J. & Silven, O., 2012, *Proceedings - 2012 International Conference on Embedded Computer Systems: Architectures, Modeling and Simulation, IC-SAMOS 2012*. p. 113-119 7 p. 6404164

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

The development of constructability using BIM as an intensifying technology

Tauriainen, M., Mero, A. K., Lemström, A., Puttonen, J. & Saari, A., 2012, *eWork and eBusiness in Architecture, Engineering and Construction - Proceedings of the European Conference on Product and Process Modelling 2012, ECPPM 2012*. p. 713-716 4 p.

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

Overview of the MPEG reconfigurable video coding framework

Bhattacharyya, S. S., Eker, J., Janneck, J. W., Lucarz, C., Mattavelli, M. & Raulet, M., May 2011, In : *Journal of Signal Processing Systems*. 63, 2, p. 251-263 13 p.

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

Quasi-static scheduling of CAL actor networks for reconfigurable video coding

Boutellier, J., Lucarz, C., Lafond, S., Gomez, V. M. & Mattavelli, M., May 2011, In : *Journal of Signal Processing Systems*. 63, 2, p. 191-202 12 p.

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

Exploiting statically schedulable regions in dataflow programs

Gu, R., Janneck, J. W., Raulet, M. & Bhattacharyya, S. S., Apr 2011, In : *Journal of Signal Processing Systems*. 63, 1, p. 129-142 14 p.

Research output: Contribution to journal › Article › 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

Design methods for wireless sensor network building energy monitoring systems

Cho, I., Shen, C. C., Potbhare, S., Bhattacharyya, S. S. & Goldsman, N., 2011, *Proceedings of the 36th Annual IEEE Conference on Local Computer Networks, LCN 2011*. p. 974-981 8 p. 6115580

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

Generation of all radix-2 fast Fourier transform algorithms using binary trees

Qureshi, F. & Gustafsson, O., 2011, *2011 20th European Conference on Circuit Theory and Design, ECCTD 2011*. p. 677-680 4 p. 6043634

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

Inkjet printing of UWB antennas on paper based substrates

Shaker, G., Rida, A., Safavi-Naeini, S., Tentzeris, M. M. & Nikolaou, S., 2011, *Proceedings of the 5th European Conference on Antennas and Propagation, EUCAP 2011*. p. 3001-3004 4 p. 5782210

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

Topological patterns for scalable representation and analysis of dataflow graphs

Sane, N., Kee, H., Seetharaman, G. & Bhattacharyya, S. S., 2011, In : *Journal of Signal Processing Systems*. 65, 2, p. 229-244 16 p.

Research output: [Contribution to journal](#) › [Article](#) › [Scientific](#) › [peer-review](#)

Nonlinear robust control for dc-dc converters

Soldatos, A. G., Karamanakos, P. P., Pavlou, K. G. & Manias, S. N., Dec 2010, *2010 IEEE International Conference on Electronics, Circuits, and Systems, ICECS 2010 - Proceedings*. p. 994-997 4 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](#)

OPAS: Ontology processing for assisted synthesis of conceptual design solutions

Christophe, F., Sell, R., Bernard, A. & Coatanéa, E., 2010, *Proceedings of the ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference 2009, DETC2009*. PART A ed. Vol. 5. p. 249-260 12 p.

Research output: [Chapter in Book/Report/Conference proceeding](#) › [Conference contribution](#) › [Scientific](#) › [peer-review](#)

Cavity formation in split ring resonators

Caglayan, H., Bulu, I., Loncar, M. & Ozbay, E., Dec 2008, In : *Photonics and Nanostructures - Fundamentals and Applications*. 6, 3-4, p. 200-204 5 p.

Research output: [Contribution to journal](#) › [Article](#) › [Scientific](#) › [peer-review](#)

Dynamic and sensitivity analysis of KNTU CDRPM: A cable driven redundant parallel manipulator

Aref, M. M., Gholami, P. & Taghirad, H. D., 2008, *2008 IEEE/ASME International Conference on Mechatronics and Embedded Systems and Applications, MESA 2008*. p. 528-533 6 p. 4735650

Research output: [Chapter in Book/Report/Conference proceeding](#) › [Conference contribution](#) › [Scientific](#) › [peer-review](#)

Physics and applications of photonic crystals

Ozbay, E., Bulu, I., Aydin, K., Caglayan, H. & Guven, K., Oct 2004, In : *Photonics and Nanostructures - Fundamentals and Applications*. 2, 2, p. 87-95 9 p.

Research output: [Contribution to journal](#) › [Article](#) › [Scientific](#) › [peer-review](#)