

Antink, CH, Pirhonen, M, Väättäjä, H, Somppi, S, Tornqvist, H, Cardo, A, Teichmann, D, Vainio, O, Surakka, V & Vehkaoja, A 2019, 'Sensor Fusion for Unobtrusive Respiratory Rate Estimation in Dogs', *IEEE Sensors Journal*, vol. 19, no. 16, pp. 7072-7081. <https://doi.org/10.1109/JSEN.2019.2912002>

Ali, I, Suominen, O, Gotchev, A & Morales, ER 2019, 'Methods for simultaneous robot-world-hand-eye calibration: A comparative study', *Sensors (Switzerland)*, vol. 19, no. 12, 2837. <https://doi.org/10.3390/s19122837>

Piche, R 2019, Automatic numerical differentiation by maximum likelihood estimation of a linear Gaussian state space model. in *2019 18th European Control Conference, ECC 2019*. IEEE, pp. 1861-1865, European Control Conference, Naples, Italy, 25/06/19. <https://doi.org/10.23919/ECC.2019.8795960>

Pyrhönen, V-P & Vilkkö, MK 2019, Composite nonlinear feedback control of a JIB trolley of a tower crane behaviors. in *2019 18th European Control Conference, ECC 2019*, 8796229, IEEE, pp. 1124-1129, European Control Conference, Naples, Italy, 25/06/19. <https://doi.org/10.23919/ECC.2019.8796229>

Asp, A, Hentilä, T, Valkama, M, Pikkuvirta, J, Hujanen, A & Huhtinen, I 2019, Impact of Different Concrete Types on Radio Propagation: Fundamentals and Practical RF Measurements. in JJPC Rodrigues, P Solic, T Perkovic, K Vukojevic, JJPC Rodrigues, L Patrono & S Nizetic (eds), *2019 4th International Conference on Smart and Sustainable Technologies, SpliTech 2019*. IEEE, International Conference on Smart and Sustainable Technologies, Bol/Split, Croatia, 18/06/19. <https://doi.org/10.23919/SpliTech.2019.8783022>

Wang, W, Okati, N, Tanash, I, Riihonen, T & Lohan, E-S 2019, Location-based beamforming architecture for efficient farming applications with drones. in E-S Lohan, A Rugamer, J Nurmi, W Koch & A Heuberger (eds), *2019 International Conference on Localization and GNSS, ICL-GNSS 2019*. IEEE, International Conference on Localization and GNSS, Nuremberg, Germany, 4/06/19. <https://doi.org/10.1109/ICL-GNSS.2019.8752698>

Pihlajasalo, J, Leppäkoski, H, Kuismanen, S, Ali-Löytty, S & Piche, R 2019, Methods for long-term GNSS clock offset prediction. in E-S Lohan, A Rugamer, J Nurmi, W Koch & A Heuberger (eds), *2019 International Conference on Localization and GNSS, ICL-GNSS 2019*. IEEE, International Conference on Localization and GNSS, Nuremberg, Germany, 4/06/19. <https://doi.org/10.1109/ICL-GNSS.2019.8752725>

Bezzateev, S, Voloshina, N, Zhidanov, K & Ometov, A 2019, Secure environmental monitoring for industrial internet of things: From framework to live implementation. in E-S Lohan, A Rugamer, J Nurmi, W Koch & A Heuberger (eds), *2019 International Conference on Localization and GNSS, ICL-GNSS 2019*. IEEE, International Conference on Localization and GNSS, Nuremberg, Germany, 4/06/19. <https://doi.org/10.1109/ICL-GNSS.2019.8752764>

Kekonen, A, Bergelin, M, Johansson, M, Kumar Joon, N, Bobacka, J & Viik, J 2019, 'Bioimpedance Sensor Array for Long-Term Monitoring of Wound Healing from Beneath the Primary Dressings and Controlled Formation of H<sub>2</sub>O<sub>2</sub> Using Low-Intensity Direct Current', *Sensors*, vol. 19, no. 11. <https://doi.org/10.3390/s19112505>

Kahle, H, Phung, H-M, Penttinen, J-P, Rajala, P, Tukiainen, A, Ranta, S & Guina, M 2019, Double-side pumped membrane external-cavity surface-emitting laser (MECSEL) with increased efficiency emitting > 3 W in the 780 nm region. in *2019 Conference on Lasers and Electro-Optics, CLEO 2019 - Proceedings*. IEEE, Conference on Lasers and Electro-Optics, San Jose, United States, 5/05/19. <https://doi.org/10.23919/CLEO.2019.8749958>

Li, S, Bariah, L, Muhaidat, S, Sofotasios, P, Liang, J & Wang, A 2019, Error analysis of NOMA-based user cooperation with SWIPT. in *Proceedings - 15th Annual International Conference on Distributed Computing in Sensor Systems, DCOSS 2019*. IEEE, pp. 507-513, Annual International Conference on Distributed Computing in Sensor Systems, Santorini Island, Greece, 29/05/19. <https://doi.org/10.1109/DCOSS.2019.00098>

Abdallah, Z, Stefszky, M, Ulvila, V, Silberhorn, C & Vainio, M 2019, Frequency Comb Generation in a Continuous-Wave Pumped Second-Order Nonlinear Waveguide Resonator. in *2019 Conference on Lasers and Electro-Optics, CLEO 2019 - Proceedings*. IEEE, Conference on Lasers and Electro-Optics, San Jose, United States, 5/05/19. <https://doi.org/10.23919/CLEO.2019.8750403>

Saad-Bin-Alam, M, Reshef, O, Huttunen, MJ, Carlow, G, Sullivan, B, Menard, JM, Dolgaleva, K & Boyd, RW 2019, High-Q resonance train in a plasmonic metasurface. in *2019 Conference on Lasers and Electro-Optics, CLEO 2019 - Proceedings*. IEEE, Conference on Lasers and Electro-Optics, San Jose, United States, 5/05/19. <https://doi.org/10.23919/CLEO.2019.8750206>

Sadiek, I, Mikkonen, T, Vainio, M, Toivonen, J & Foltynowicz, A 2019, Optical Frequency Comb Photoacoustic Spectroscopy. in *2019 Conference on Lasers and Electro-Optics, CLEO 2019 - Proceedings*. IEEE, Conference on Lasers and Electro-Optics, San Jose, United States, 5/05/19. <https://doi.org/10.23919/CLEO.2019.8749688>

Kerst, T, Malmbeck, R, Ial Banik, NL & Toivonen, J 2019, 'Alpha radiation-induced luminescence by am-241 in aqueous nitric acid solution', *Sensors (Switzerland)*, vol. 19, no. 7, 1602. <https://doi.org/10.3390/s19071602>

Ometov, A, Bezzateev, S, Davydov, V, Shchesniak, A, Masek, P, Lohan, ES & Koucheryavy, Y 2019, 'Positioning information privacy in intelligent transportation systems: An overview and future perspective', *Sensors*, vol. 19, no. 7, 1603. <https://doi.org/10.3390/s19071603>

Kuang, Y, Ma, S, Ukkonen, L, Virkki, J & Björninen, T 2019, Circularly Polarized Textile Tag Antenna for Wearable Passive UHF RFID Systems. in *2018 International Applied Computational Electromagnetics Society Symposium in China, ACES-China 2018*. IEEE, International Applied Computational Electromagnetics Society Symposium in China, Beijing, China, 29/07/18. <https://doi.org/10.23919/ACCESS.2018.8669314>

Ma, S, Ukkonen, L, Sydänheimo, L & Björninen, T 2019, Comparison of Human Head Phantoms with Different Complexities for Implantable Antenna Development. in *2018 International Applied Computational Electromagnetics Society Symposium in China, ACES-China 2018*. IEEE, International Applied Computational Electromagnetics Society Symposium in China, Beijing, China, 29/07/18. <https://doi.org/10.23919/ACCESS.2018.8669363>

Berger, PR, Li, M, Mattei, RM, Niang, MA, Talisa, N, Tripepi, M, Harris, B, Bhalerao, SR, Chowdhury, EA, Winter, CH & Lupo, D 2019, Advancements in Solution Processable Devices using Metal Oxides For Printed Internet-of-Things Objects. in *2019 Electron Devices Technology and Manufacturing Conference, EDTM 2019*. IEEE, pp. 160-162, Electron Devices Technology and Manufacturing Conference, Singapore, Singapore, 12/03/19. <https://doi.org/10.1109/EDTM.2019.8731322>

Pournoori, N, Ukkonen, L, Sydänheimo, L & Björninen, T 2019, Charge Storage Level Sensor RFID Tag: Impedance Matching and Experimental Characterisation. in *13th European Conference on Antennas and Propagation, EuCAP 2019*. IEEE, European Conference on Antennas and Propagation, Krakow, Poland, 31/03/19.

Kordelin, K, Virkki, J, Kordelin, J, Kuusman, J, Mattila, J, Johansson, M, Ukkonen, L & Sydänheimo, L 2019, Optimization of RFID-Based Tunnel Access Monitoring System Antenna Reading Areas. in *13th European Conference on Antennas and Propagation, EuCAP 2019*, 8739592, IEEE, European Conference on Antennas and Propagation, Krakow, Poland, 31/03/19.

Semkin, V, Ponomarenko-Timofeev, A, Karttunen, A, Galinina, O, Andreev, S & Koucheryavy, Y 2019, Path Loss Characterization for Intra-Vehicle Wearable Deployments at 60 GHz. in *13th European Conference on Antennas and Propagation, EuCAP 2019*. IEEE, European Conference on Antennas and Propagation, Krakow, Poland, 31/03/19.

Khan, Z, Rizwan, M, Rusanen, R, Ukkonen, L & Virkki, J 2019, Strain Reliability of Embroidered Passive UHF RFID Tags on 3D-printed Substrates. in *13th European Conference on Antennas and Propagation, EuCAP 2019*. IEEE, European Conference on Antennas and Propagation, Krakow, Poland, 31/03/19.

Yoo, SK, Cotton, SL, Sofotasios, PC, Muhaidat, S, Badarneh, OS & Karagiannidis, GK 2019, Energy Detection-Based Spectrum Sensing over Fisher-Snedecor F Fading Channels. in *2018 IEEE Global Communications Conference*, 8647778, IEEE, IEEE Global Communications Conference, Abu Dhabi, United Arab Emirates, 9/12/18. <https://doi.org/10.1109/GLOCOM.2018.8647778>

Kovalchukov, R, Moltchanov, D, Begishev, V, Samuylov, A, Andreev, S, Koucheryavy, Y & Samouylov, K 2019, Improved Session Continuity in 5G NR with Joint Use of Multi-Connectivity and Guard Bandwidth. in *2018 IEEE Global Communications Conference, GLOBECOM 2018*. IEEE, IEEE Global Communications Conference, Abu Dhabi, United Arab Emirates, 9/12/18. <https://doi.org/10.1109/GLOCOM.2018.8647608>

Rinne, J, Keskinen, J, Berger, PR, Lupo, D & Valkama, M 2018, 'M2M Communication Assessment in Energy-Harvesting and Wake-Up Radio Assisted Scenarios Using Practical Components', *Sensors (Basel, Switzerland)*, vol. 18, no. 11. <https://doi.org/10.3390/s18113992>

Solin, A, Cortes, S, Rahtu, E & Kannala, J 2018, Inertial Odometry on Handheld Smartphones. in *2018 21st International Conference on Information Fusion, FUSION 2018.*, 8455482, IEEE, pp. 1361-1368, International Conference on Information Fusion, Cambridge, United Kingdom, 10/07/18. <https://doi.org/10.23919/ICIF.2018.8455482>

Rastorgueva-Foi, E, Costa, M, Koivisto, M, Leppänen, K & Valkama, M 2018, User Positioning in mmW 5G Networks Using Beam-RSRP Measurements and Kalman Filtering. in *2018 21st International Conference on Information Fusion, FUSION 2018.*, 8455289, IEEE, pp. 1150-1156, International conference on information fusion, 10/07/18. <https://doi.org/10.23919/ICIF.2018.8455289>

Mäkinen, P, Mononen, T & Mattila, J 2018, Inertial Sensor-Based State Estimation of Flexible Links Subject to Bending and Torsion. in *2018 14th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications, MESA 2018.*, 8449188, IEEE, IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications, Oulu, Finland, 2/07/18. <https://doi.org/10.1109/MESA.2018.8449188>

Teke, B, Lanz, M, Kämäräinen, J-K & Hietanen, A 2018, Real-time and Robust Collaborative Robot Motion Control with Microsoft Kinect® v2. in *2018 14th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications, MESA 2018.*, 8449156, IEEE, IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications, Oulu, Finland, 2/07/18. <https://doi.org/10.1109/MESA.2018.8449156>

Mahmoodpour, M, Lobov, A, Lanz, M, Mäkelä, P & Rundas, N 2018, Role-based visualization of industrial IoT-based systems. in *2018 14th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications, MESA 2018.*, 8449183, IEEE, IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications, Oulu, Finland, 2/07/18. <https://doi.org/10.1109/MESA.2018.8449183>

Chen, X, He, H, Ukkonen, L, Virkki, J, Lu, Y & Lam, H 2018, Fabrication and reliability evaluation of passive UHF RFID T-shirts. in *2018 IEEE International Workshop on Antenna Technology, iWAT2018 - Proceedings.* IEEE, pp. 1-4, International Workshop on Antenna Technology, 1/01/00. <https://doi.org/10.1109/IWAT.2018.8379146>

Pirhonen, M, Peltokangas, M & Vehkaoja, A 2018, 'Acquiring respiration rate from photoplethysmographic signal by recursive bayesian tracking of intrinsic modes in time-frequency spectra', *Sensors*, vol. 18, no. 6, 1693. <https://doi.org/10.3390/s18061693>

Virtanen, J, Somppi, S, Törnqvist, H, Jeyhani, V, Fiedler, P, Gizatdinova, Y, Majaranta, P, Väätäjä, H, Cardó, AV, Lekkala, J, Tuukkanen, S, Surakka, V, Vainio, O & Vehkaoja, A 2018, 'Evaluation of dry electrodes in canine heart rate monitoring', *Sensors*, vol. 18, no. 6, 1757. <https://doi.org/10.3390/s18061757>

Borges, LR, Azzari, L, Bakic, PR, Maidment, ADA, Vieira, MAC & Foi, A 2018, 'Restoration of low-dose digital breast tomosynthesis', *Measurement Science and Technology*, vol. 29, no. 6, 064003. <https://doi.org/10.1088/1361-6501/aab2f6>

Jeyhani, V, Mahdiani, S, Viik, J, Oksala, N & Vehkaoja, A 2018, A novel technique for analysis of postural information with wearable devices. in *2018 IEEE 15th International Conference on Wearable and Implantable Body Sensor Networks, BSN 2018.* IEEE, pp. 30-33, IEEE International Conference on Wearable and Implantable Body Sensor Networks, 1/01/00. <https://doi.org/10.1109/BSN.2018.8329651>

Mehrang, S, Pietilä, J & Korhonen, I 2018, 'An activity recognition framework deploying the random forest classifier and a single optical heart rate monitoring and triaxial accelerometer wrist-band', *Sensors*, vol. 18, no. 2, 613. <https://doi.org/10.3390/s18020613>

Mesaros, A, Heittola, T, Benetos, E, Foster, P, Lagrange, M, Virtanen, T & Plumbley, MD 2018, 'Detection and Classification of Acoustic Scenes and Events: Outcome of the DCASE 2016 Challenge', *IEEE/ACM Transactions on Audio Speech and Language Processing*, vol. 26, no. 2, pp. 379-393. <https://doi.org/10.1109/TASLP.2017.2778423>

Koivikko, A, Raei, ES, Mosallaei, M, Mäntysalo, M & Sariola, V 2018, 'Screen-printed curvature sensors for soft robots', *IEEE Sensors Journal*, vol. 18, no. 1, pp. 223-230. <https://doi.org/10.1109/JSEN.2017.2765745>

Nikunen, J, Diment, A & Virtanen, T 2018, 'Separation of Moving Sound Sources Using Multichannel NMF and Acoustic Tracking', *IEEE/ACM Transactions on Audio Speech and Language Processing*, vol. 26, no. 2, pp. 281-295. <https://doi.org/10.1109/TASLP.2017.2774925>

Rajala, S, Mattila, R, Kaartinen, I & Lekkala, J 2017, 'Designing, Manufacturing and Testing of a Piezoelectric Polymer Film In-Sole Sensor for Plantar Pressure Distribution Measurements', *IEEE Sensors Journal*, vol. 17, no. 20, pp. 6798-6805. <https://doi.org/10.1109/JSEN.2017.2750241>

Koivumäki, J & Mattila, J 2017, 'Adaptive and nonlinear control of discharge pressure for variable displacement axial piston pumps', *Journal of Dynamic Systems, Measurement and Control: Transactions of the ASME*, vol. 139, no. 10, 101008. <https://doi.org/10.1115/1.4036537>

Välimäki, H, Verho, J, Kreutzer, J, Kattiparambil Rajan, D, Ryyänen, T, Pekkanen-Mattila, M, Ahola, A, Tappura, K, Kallio, P & Lekkala, J 2017, 'Fluorimetric oxygen sensor with an efficient optical read-out for in vitro cell models', *Sensors and Actuators B: Chemical*, vol. 249, pp. 738-746. <https://doi.org/10.1016/j.snb.2017.04.182>

Dong, G, Shen, Y, He, H, Virkki, J & Hu, S 2017, Chipless graphene tag and dual-CP reader for Internet of Things. in *2017 International Applied Computational Electromagnetics Society Symposium in China, ACES-China 2017*. IEEE, International Applied Computational Electromagnetics Society Symposium in China, 1/01/00.

Uddin, R, Nur-E-Habiba, N, Rena, G, Hwu, ET & Boisen, A 2017, 'New Evidence for the Mechanism of Action of a Type-2 Diabetes Drug Using a Magnetic Bead-Based Automated Biosensing Platform', *ACS Sensors*, vol. 2, no. 9, pp. 1329-1336. <https://doi.org/10.1021/acssensors.7b00384>

Drgas, S, Virtanen, T, Lücke, J & Hurmalainen, A 2017, 'Binary Non-Negative Matrix Deconvolution for Audio Dictionary Learning', *IEEE/ACM Transactions on Audio Speech and Language Processing*, vol. 25, no. 8, pp. 1644-1656. <https://doi.org/10.1109/TASLP.2017.2709909>

Rajan, DK, Verho, J, Kreutzer, J, Valimaki, H, Ihalainen, H, Lekkala, J, Patrikoski, M & Miettinen, S 2017, Monitoring pH, temperature and humidity in long-term stem cell culture in CO<sub>2</sub> incubator. in *2017 IEEE International Symposium on Medical Measurements and Applications (MeMeA)*. IEEE, pp. 470-474, IEEE International Symposium on Medical Measurements and Applications, Mayo Clinic, Rochester-Minnesota, USA, Minnesota, United States, 7/05/19. <https://doi.org/10.1109/MeMeA.2017.7985922>

Henno, J, Jaakkola, H & Mäkelä, J 2017, Developing curiosity and multimedia skills with programming experiments. in *2017 40th International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2017 - Proceedings*. IEEE, pp. 694-699, International Convention on Information and Communication Technology, Electronics and Microelectronics, 1/01/00. <https://doi.org/10.23919/MIPRO.2017.7973512>

Linna, P, Mäkinen, T & Yrjökoski, K 2017, Open data based value networks: Finnish examples of public events and agriculture. in *2017 40th International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2017 - Proceedings*. IEEE, pp. 1448-1453, International Convention on Information and Communication Technology, Electronics and Microelectronics, 1/01/00. <https://doi.org/10.23919/MIPRO.2017.7973649>

Jaakkola, H, Henno, J, Thalheim, B & Mäkelä, J 2017, The educators' telescope to the future of technology. in *2017 40th International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2017 - Proceedings*. IEEE, pp. 660-665, International Convention on Information and Communication Technology, Electronics and Microelectronics, 1/01/00. <https://doi.org/10.23919/MIPRO.2017.7973506>

Jaakkola, H, Henno, J, Mäkelä, J & Thalheim, B 2017, Today is the future of yesterday; What is the future of today? in *2017 40th International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2017 - Proceedings*. IEEE, pp. 635-643, International Convention on Information and Communication Technology, Electronics and Microelectronics, 1/01/00. <https://doi.org/10.23919/MIPRO.2017.7973506>

Electronics and Microelectronics, 1/01/00. <https://doi.org/10.23919/MIPRO.2017.7973502>

Richard, G, Virtanen, T, Bello, JP, Ono, N & Glotin, H 2017, 'Introduction to the Special Section on Sound Scene and Event Analysis', *IEEE/ACM Transactions on Audio Speech and Language Processing*, vol. 25, no. 6, pp. 1169-1171. <https://doi.org/10.1109/TASLP.2017.2699334>

Ometov, A, Solomitckii, D, Olsson, T, Bezzateev, S, Shchesniak, A, Andreev, S, Harju, J & Koucheryavy, Y 2017, 'Secure and connected wearable intelligence for content delivery at a mass event: A case study', *Journal of Sensor and Actuator Networks*, vol. 6, no. 2, 5. <https://doi.org/10.3390/jsan6020005>

Vihonen, J, Mattila, J & Visa, A 2017, 'Joint-Space Kinematic Model for Gravity-Referenced Joint Angle Estimation of Heavy-Duty Manipulators', *IEEE Transactions on Instrumentation and Measurement*, vol. 66, no. 12, pp. 3280-3288. <https://doi.org/10.1109/TIM.2017.2749918>

Salpavaara, T, Hänninen, A, Antniemi, A, Lekkala, J & Kellomäki, M 2017, 'Non-destructive and wireless monitoring of biodegradable polymers', *Sensors and Actuators B: Chemical*, vol. 251, pp. 1018-1025. <https://doi.org/10.1016/j.snb.2017.05.116>

Mathlouthi, M, Valkonen, A, Rzaigui, M & Smirani, W 2017, 'Structural characterization, spectroscopic, thermal, AC conductivity and dielectric properties and antimicrobial studies of  $(C_8H_{12}N)_2[SnCl_6]$ ', *PHASE TRANSITIONS*, vol. 90, no. 4, pp. 399-414. <https://doi.org/10.1080/01411594.2016.1212194>

Barker, T & Virtanen, T 2016, 'Blind Separation of Audio Mixtures Through Nonnegative Tensor Factorization of Modulation Spectrograms', *IEEE-Acm transactions on audio speech and language processing*, vol. 24, no. 12, pp. 2377-2389. <https://doi.org/10.1109/TASLP.2016.2602546>

Acar, E, Peltonen, S & Ruotsalainen, U 2016, 'Adaptive multiresolution method for MAP reconstruction in electron tomography', *Ultramicroscopy*, vol. 170, pp. 24-34. <https://doi.org/10.1016/j.ultramic.2016.08.002>

Rajala, S, Paajanen, M & Lekkala, J 2016, 'Measurement of sensitivity distribution map of a ferroelectret polymer film', *IEEE Sensors Journal*, vol. 16, no. 23, pp. 8517-8522. <https://doi.org/10.1109/JSEN.2016.2613876>

Kettunen, L & Kovanen, T 2016, Electromagnetism and cross-disciplinary problems. in *2016 URSI International Symposium on Electromagnetic Theory, EMTS 2016*. IEEE, pp. 500-501, URSI INTERNATIONAL SYMPOSIUM ON ELECTROMAGNETIC THEORY, 1/01/00. <https://doi.org/10.1109/URSI-EMTS.2016.7571436>

Naumenko, A, Krivenko, S, Lukin, V & Egiazarian, K 2016, Texture region detection by trained neural network. in *9th International Kharkiv Symposium on Physics and Engineering of Microwaves, Millimeter and Submillimeter Waves, MSMW 2016*. IEEE, INTERNATIONAL KHARKOV SYMPOSIUM ON PHYSICS AND ENGINEERING OF MICROWAVES, MILLIMETER AND SUBMILLIMETER WAVES, 1/01/00. <https://doi.org/10.1109/MSMW.2016.7538174>

Kokkonen, J, Lehtomäki, J, Petrov, V, Moltchanov, D & Juntti, M 2016, Frequency domain penetration loss in the terahertz band. in *2016 Global Symposium on Millimeter Waves (GSMM) & ESA Workshop on Millimetre-Wave Technology and Applications*. IEEE, GLOBAL SYMPOSIUM ON MILLIMETER WAVES, 1/01/00. <https://doi.org/10.1109/GSMM.2016.7500309>

Rubel, O, Lukin, V & Egiazarian, K 2016, On prediction of DCT-based denoising efficiency under spatially correlated noise conditions. in *2016 13th International Conference on Modern Problems of Radio Engineering, Telecommunications and Computer Science (TCSET)*. IEEE, pp. 750-754, International Conference on Modern Problems of Radio Engineering, Telecommunications and Computer Science, 1/01/00. <https://doi.org/10.1109/TCSET.2016.7452171>

Viljanen, J, Sun, Z & Alwahabi, ZT 2016, 'Microwave assisted laser-induced breakdown spectroscopy at ambient conditions', *Spectrochimica Acta Part B: Atomic Spectroscopy*, vol. 118, pp. 29-36. <https://doi.org/10.1016/j.sab.2016.02.002>

Korobko, DA, Okhotnikov, OG & Zolotovskii, IO 2016, 'Amplifier similariton laser with extra-broad bandwidth output pulse', *Laser Physics Letters*, vol. 13, no. 3, 035106. <https://doi.org/10.1088/1612-2011/13/3/035106>

Selvan, NT, Eshwaran, SB, Das, A, Stöckelhuber, KW, Wießner, S, Pötschke, P, Nando, GB, Chervanyov, AI & Heinrich, G 2016, 'Piezoresistive natural rubber-multiwall carbon nanotube nanocomposite for sensor applications', *Sensors and Actuators, A: Physical*, vol. 239, pp. 102-113. <https://doi.org/10.1016/j.sna.2016.01.004>

Pajukoski, H, Näkki, J, Thieme, S, Tuominen, J, Nowotny, S & Vuoristo, P 2016, 'High performance corrosion resistant coatings by novel coaxial cold- and hot-wire laser cladding methods', *Journal of Laser Applications*, vol. 28, no. 1, 012011. <https://doi.org/10.2351/1.4936988>

Mesaros, A, Heittola, T & Virtanen, T 2016, 'Metrics for polyphonic sound event detection', *Applied Sciences*, vol. 6, no. 6, 162. <https://doi.org/10.3390/app6060162>

Farooq, A, Evreinov, G, Raisamo, R & Takahata, D 2015, Evaluating transparent liquid screen overlay as a haptic conductor: Method of enhancing touchscreen based user interaction by a transparent deformable liquid screen overlay. in *2015 IEEE SENSORS - Proceedings.*, 7370186, Institute of Electrical and Electronics Engineers Inc., 14th IEEE SENSORS, Busan, Korea, Republic of, 1/11/15. <https://doi.org/10.1109/ICSENS.2015.7370186>

Su, W, Cooper, JR, Cook, BS, Tentzeris, MM, Mariotti, C & Roselli, L 2015, Inkjet-printed dual microfluidic-based sensor integrated system. in *2015 IEEE SENSORS - Proceedings.*, 7370300, Institute of Electrical and Electronics Engineers Inc., 14th IEEE SENSORS, Busan, Korea, Republic of, 1/11/15. <https://doi.org/10.1109/ICSENS.2015.7370300>

Auer, S, Koho, T, Uusi-Kerttula, H, Vesikari, T, Blazevic, V & Hytönen, VP 2015, 'Rapid and sensitive detection of norovirus antibodies in human serum with a biolayer interferometry biosensor', *Sensors and Actuators B: Chemical*, vol. 221, pp. 507-514. <https://doi.org/10.1016/j.snb.2015.06.088>

Gonçalves, R, Rima, S, Magueta, R, Pinho, P, Collado, A, Georgiadis, A, Hester, J, Carvalho, NB & Tentzeris, MM 2015, 'RFID-Based Wireless Passive Sensors Utilizing Cork Materials', *IEEE Sensors Journal*, vol. 15, no. 12, 7222363, pp. 7242-7251. <https://doi.org/10.1109/JSEN.2015.2472980>

Baby, D, Virtanen, T, Gemmeke, JF & Van hamme, H 2015, 'Coupled dictionaries for exemplar-based speech enhancement and automatic speech recognition', *IEEE-Acm transactions on audio speech and language processing*, vol. 23, no. 11, pp. 1788-1799. <https://doi.org/10.1109/TASLP.2015.2450491>

Yi, X, Wu, T, Wang, Y & Tentzeris, MM 2015, 'Sensitivity modeling of an RFID-based strain-sensing antenna with dielectric constant change', *IEEE Sensors Journal*, vol. 15, no. 11, 7152827, pp. 6147-6155. <https://doi.org/10.1109/JSEN.2015.2453947>

Zakrzewski, M, Vehkaoja, A, Joutsen, AS, Palovuori, KT & Vanhala, JJ 2015, 'Noncontact Respiration Monitoring during Sleep with Microwave Doppler Radar', *IEEE Sensors Journal*, vol. 15, no. 10, pp. 5683-5693. <https://doi.org/10.1109/JSEN.2015.2446616>

Martinez, R, Kimionis, J, Georgiadis, A, Collado, A, Tentzeris, M, Goussetis, G & Tornero, JL 2015, Circularly polarized shorted ring slot rectenna with a mesh design for optimized inkjet printing on paper substrate. in *2015 9th European Conference on Antennas and Propagation, EuCAP 2015.*, 7228814, Institute of Electrical and Electronics Engineers Inc., 9th European Conference on Antennas and Propagation, EuCAP 2015, Lisbon, Portugal, 13/05/15.

Goncalves, R, Pinho, P, Carvalho, NB & Tentzeris, MM 2015, Humidity passive sensors based on UHF RFID using cork dielectric slabs. in *2015 9th European Conference on Antennas and Propagation, EuCAP 2015.*, 7228346, Institute of Electrical and Electronics Engineers Inc., 9th European Conference on Antennas and Propagation, EuCAP 2015, Lisbon, Portugal, 13/05/15.

Su, W, Cook, BS & Tentzeris, MM 2015, Low-cost microfluidics-enabled tunable loop antenna using inkjet-printing technologies. in *2015 9th European Conference on Antennas and Propagation, EuCAP 2015.*, 7228990, Institute of Electrical and Electronics Engineers Inc., 9th European Conference on Antennas and Propagation, EuCAP 2015, Lisbon, Portugal, 13/05/15.

Makkonen, J, Marsh, LA, Vihonen, J, Järvi, A, Armitage, DW, Visa, A & Peyton, AJ 2015, 'Improving reliability for classification of metallic objects using a WTMD portal', *Measurement Science and Technology*, vol. 26, no. 10, 105103. <https://doi.org/10.1088/0957-0233/26/10/105103>

Sanginés, R, Contreras, V, Sobral, H & Robledo-Martinez, A 2015, 'Optimal emission enhancement in orthogonal double-pulse laser-induced breakdown spectroscopy', *Spectrochimica Acta Part B: Atomic Spectroscopy*, vol. 110, 4935, pp. 139-145. <https://doi.org/10.1016/j.sab.2015.06.012>

Salpavaara, T, Järveläinen, M, Seppälä, S, Yli-Hallila, T, Verho, J, Vilkkö, M, Lekkala, J & Levänen, E 2015, 'Passive resonance sensor based method for monitoring particle suspensions', *Sensors and Actuators B: Chemical*, vol. 219, pp. 324-330. <https://doi.org/10.1016/j.snb.2015.04.121>

Mariotti, C, Su, W, Cook, BS, Roselli, L & Tentzeris, MM 2015, 'Development of Low Cost, Wireless, Inkjet Printed Microfluidic RF Systems and Devices for Sensing or Tunable Electronics', *IEEE Sensors Journal*, vol. 15, no. 6, 6966729, pp. 3156-3163. <https://doi.org/10.1109/JSEN.2014.2374874>

Kim, S, Kawahara, Y, Georgiadis, A, Collado, A & Tentzeris, MM 2015, 'Low-cost inkjet-printed fully passive RFID tags for calibration-free capacitive/haptic sensor applications', *IEEE Sensors Journal*, vol. 15, no. 6, 6945328, pp. 3135-3145. <https://doi.org/10.1109/JSEN.2014.2366915>

Giannoulis, G, Korpijärvi, VM, Iliadis, N, Mäkelä, J, Viheriälä, J, Apostolopoulos, D, Guina, M & Avramopoulos, H 2015, Dilute nitride SOAs for high-speed data processing in variable temperature conditions. in *Optical Fiber Communication Conference, OFC 2015*. OSA - The Optical Society, Optical Fiber Communication Conference, United States, 1/01/00.

Piccardi, A, Alberucci, A, Kravets, N, Assanto, G, Buchnev, O & Kaczmarek, M 2014, Light beam hysteresis in liquid crystals. in *2014 Fotonica AEIT Italian Conference on Photonics Technologies, Fotonica AEIT 2014.*, 6843888, IEEE COMPUTER SOCIETY PRESS, 2014 Fotonica AEIT Italian Conference on Photonics Technologies, Fotonica AEIT 2014, Naples, Italy, 12/05/14. <https://doi.org/10.1109/Fotonica.2014.6843888>

Cook, BS, Vyas, R, Kim, S, Thai, T, Le, T, Traille, A, Aubert, H & Tentzeris, MM 2014, 'RFID-based sensors for zero-power autonomous wireless sensor networks', *IEEE Sensors Journal*, vol. 14, no. 8, 6701187, pp. 2419-2431. <https://doi.org/10.1109/JSEN.2013.2297436>

Tzankiozis, T, Ntziachristos, L, Amanatidis, S, Niemelä, V, Ukkonen, A & Samaras, Z 2013, 'Development of a constant dilution sampling system for particulate and gaseous pollutant measurements', *Measurement Science and Technology*, vol. 24, no. 8, 085801. <https://doi.org/10.1088/0957-0233/24/8/085801>

Gumenyuk, R & Okhotnikov, OG 2013, 'Polarization control of the bound state of a vector soliton', *Laser Physics Letters*, vol. 10, no. 5, 055111, pp. 1-3. <https://doi.org/10.1088/1612-2011/10/5/055111>

Trikshev, AI, Kurkov, AS, Tsvetkov, VB, Filatova, SA, Kertulla, J, Filippov, V, Chamorovskiy, YK & Okhotnikov, OG 2013, 160W single-frequency laser based on active tapered double-clad fiber amplifier. in *Optics InfoBase Conference Papers*. The European Conference on Lasers and Electro-Optics, CLEO\_Europe 2013, Munich, Germany, 12/05/13.

Shigeta, R, Sasaki, T, Quan, DM, Kawahara, Y, Vyas, RJ, Tentzeris, MM & Asami, T 2013, 'Ambient rf energy harvesting sensor device with capacitor-leakage-aware duty cycle control', *IEEE Sensors Journal*, vol. 13, no. 8, 6521342, pp. 2973-2983. <https://doi.org/10.1109/JSEN.2013.2264931>

Sorvajarvi, T, Rossi, J & Toivonen, J 2013, Detection of KC1 and KOH using collinear photofragmentation and atomic absorption spectroscopy. in *The European Conference on Lasers and Electro-Optics, CLEO\_Europe 2013*. The European Conference on Lasers and Electro-Optics, CLEO\_Europe 2013, Munich, Germany, 12/05/13.

Vikholm-Lundin, I, Auer, S, Paakkunainen, M, Määttä, JAE, Munter, T, Leppiniemi, J, Hytönen, VP & Tappura, K 2012, 'Cysteine-tagged chimeric avidin forms high binding capacity layers directly on gold', *Sensors and Actuators B: Chemical*, vol. 171-172, pp. 440-448. <https://doi.org/10.1016/j.snb.2012.05.008>

Thai, TT, Mehdi, JM, Chebila, F, Aubert, H, Pons, P, Dejean, GR, Tentzeris, MM & Plana, R 2012, 'Design and development of a novel passive wireless ultrasensitive RF temperature transducer for remote sensing', *IEEE Sensors Journal*, vol. 12, no. 9, 6208808, pp. 2756-2766. <https://doi.org/10.1109/JSEN.2012.2201463>

Iliopoulos, K, Czaplicki, R, Ouazzani, HE, Balandier, J-Y, Chas, M, Goeb, S, Sallé, M, Gindre, D & Sahraoui, B 2012, 'Third order nonlinear optical response of TTF-based molecular corners', *Nonlinear Optics, Quantum Optics*, vol. 43, no. 1-4, pp. 205-212.

Vikholm-Lundin, I, Auer, S & Hellgren, AC 2011, 'Detection of 3,4-methylenedioxymethamphetamine (MDMA, ecstasy) by displacement of antibodies', *Sensors and Actuators B: Chemical*, vol. 156, no. 1, pp. 28-34. <https://doi.org/10.1016/j.snb.2011.03.069>

Carlie, N, Anheier, NC, Qiao, HA, Bernacki, B, Phillips, MC, Petit, L, Musgraves, JD & Richardson, K 2011, 'Measurement of the refractive index dispersion of As<sub>2</sub>Se<sub>3</sub> bulk glass and thin films prior to and after laser irradiation and annealing using prism coupling in the near- and mid-infrared spectral range', *Review of Scientific Instruments*, vol. 82, no. 5, 053103. <https://doi.org/10.1063/1.3587616>

Piccardi, A, Alberucci, A, Assanto, G & Tabiryan, N 2011, Dark solitons in nematic liquid crystals. in *Optics InfoBase Conference Papers. Nonlinear Optics: Materials, Fundamentals and Applications, NLO 2011*, Kauai, HI, United States, 17/07/11. <https://doi.org/10.1364/NLO.2011.NWE4>

Cakmakyapan, S, Caglayan, H, Serebryannikov, A & Ozbay, E 2011, Directional selectivity through the subwavelength slit in metallic gratings. in *CLEO: Applications and Technology*. CLEO: Applications and Technology, CLEO\_AT 2011, Baltimore, MD, United States, 1/05/11. [https://doi.org/10.1364/CLEO\\_AT.2011.JTuI67](https://doi.org/10.1364/CLEO_AT.2011.JTuI67)

Cakmakyapan, S, Caglayan, H, Serebryannikov, A & Ozbay, E 2011, Directional selectivity through the subwavelength slit in metallic gratings. in *CLEO: Science and Innovations 2011*. CLEO: Science and Innovations, CLEO\_SI 2011, Baltimore, MD, United States, 1/05/11. [https://doi.org/10.1364/CLEO\\_AT.2011.JTuI67](https://doi.org/10.1364/CLEO_AT.2011.JTuI67)

Cakmakyapan, S, Caglayan, H, Serebryannikov, A & Ozbay, E 2011, Directional selectivity through the subwavelength slit in metallic gratings. in *Quantum Electronics and Laser Science Conference, QELS 2011*. Quantum Electronics and Laser Science Conference, QELS 2011, Baltimore, MD, United States, 1/05/11. [https://doi.org/10.1364/CLEO\\_AT.2011.JTuI67](https://doi.org/10.1364/CLEO_AT.2011.JTuI67)

Vyas, R, Lakafosis, V, Lee, H, Shaker, G, Yang, L, Orecchini, G, Traille, A, Tentzeris, MM & Roselli, L 2011, 'Inkjet printed, self powered, wireless sensors for environmental, gas, and authentication-based sensing', *IEEE Sensors Journal*, vol. 11, no. 12, 6008617, pp. 3139-3152. <https://doi.org/10.1109/JSEN.2011.2166996>

Izdebskaya, YV, Desyatnikov, AS, Assanto, G & Kivshar, YS 2011, Multimode waveguides in nematic liquid crystals. in *Conference on Lasers and Electro-Optics/Pacific Rim, CLEOPR 2011*. pp. 1912-1913, Conference on Lasers and Electro-Optics/Pacific Rim, CLEOPR 2011, Sydney, Australia, 28/08/11.

Veselov, A, Efimov, A, Chamorovskiy, A, Okhotnikov, O, Kosolapov, A, Levchenko, A, Lemmetyinen, H & Tkachenko, N 2011, Self-assembled monolayers (SAMs) of porphyrin deposited inside solid-core photonic crystal fibre (SCPCF). in *Access Networks and In-house Communications, ANIC 2011*. Access Networks and In-house Communications, ANIC 2011, Toronto, Canada, 12/06/11.



Izdebskaya, YV, Desyatnikov, AS, Assanto, G & Kivshar, Y 2011, Spatial solitons carrying phase singularities in nematic liquid crystals. in *Conference on Lasers and Electro-Optics/Pacific Rim, CLEOPR 2011*. pp. 444-445, Conference on Lasers and Electro-Optics/Pacific Rim, CLEOPR 2011, Sydney, Australia, 28/08/11.

Piccardi, A, Alberucci, A, Assanto, G & Kaczmarek, M 2011, Spatial solitons in a self-focusing medium with tunable nonlinearity. in *Optics InfoBase Conference Papers. Nonlinear Optics: Materials, Fundamentals and Applications, NLO 2011*, Kauai, HI, United States, 17/07/11. <https://doi.org/10.1364/NLO.2011.NWE7>

Caglayan, H & Engheta, N 2011, Theory of near-IR metatronic nanocircuits using transparent conducting oxides (TCO). in *Frontiers in Optics 2011*. Optical Society of America, Frontiers in Optics, FIO 2011, San Jose, CA, United States, 16/10/11. <https://doi.org/10.1364/FIO.2011.FTuG2>

Peccianti, M, Pasquazi, A, Assanto, G & Morandotti, R 2011, Third harmonic generation enhancement in nematic liquid crystals via nonlocal solitons propagation. in *CLEO: Science and Innovations, CLEO\_SI 2011*. CLEO: Science and Innovations, CLEO\_SI 2011, Baltimore, MD, United States, 1/05/11.

Piccardi, A, Alberucci, A, Bortolozzo, U, Residori, S & Assanto, G 2010, Nematicon routing in liquid crystal light valve. in *Optics InfoBase Conference Papers. Nonlinear Photonics, NP 2010*, Karlsruhe, Germany, 21/06/10.

Piccardi, A, Alberucci, A & Assanto, G 2010, Soliton self-deflection via power-dependent walk-off. in *Optics InfoBase Conference Papers. Nonlinear Photonics, NP 2010*, Karlsruhe, Germany, 21/06/10. <https://doi.org/10.1364/NP.2010.NMD1>

Assanto, G, Peccianti, M, Alberucci, A & Piccardi, A 2009, Routing light with nematicons: Light localization and steering in liquid crystals. in *Optics InfoBase Conference Papers*. Optical Society of America, pp. 2281-2282, International Quantum Electronics Conference, IQEC 2009, Baltimore, MD, United States, 31/05/09. <https://doi.org/10.1364/IQEC.2009.ITuG1>

Le Xuan, L, Slablab, A, Zhou, C, Chauvat, D, De Wilde, Y, Perruchas, S, Tard, C, Gacoin, T, Villeval, P & Roch, JF 2009, Single KTiOPO4 nanocrystals for nonlinear probing of local optical fields and interaction with a metallic nanostructure. in *Optics InfoBase Conference Papers*. Optical Society of America, European Quantum Electronics Conference, EQEC 2009, Munich, Germany, 14/06/09.

Caglayan, H, Bulu, I, Loncar, M & Ozbay, E 2008, Observation of defect formation in metamaterials. in *Plasmonics and Metamaterials 2008*, MMC7, Optical Society of America, Plasmonics and Metamaterials, META\_PLAS 2008, Rochester, NY, United States, 19/10/08. [https://doi.org/10.1364/META\\_PLAS.2008.MMC7](https://doi.org/10.1364/META_PLAS.2008.MMC7)

Nilsson, J, Sahu, JK, Jeong, Y, Filippov, VN, Soh, DBS, Codemard, CA, Dupriez, P, Kim, J, Richardson, DJ, Malinowski, A, Piper, AN, Price, JHV, Furusawa, K, Clarkson, WA & Payne, DN 2006, High power fiber lasers. in *Optics InfoBase Conference Papers*. Optical Society of America, Optical Fiber Communication Conference, OFC 2006, Anaheim, CA, United States, 5/03/06.

Ozbay, E, Bulu, I, Aydin, K, Caglayan, H, Alici, KB & Guven, K 2005, 'Highly directive radiation and negative refraction using photonic crystals', *Laser Physics*, vol. 15, no. 2, pp. 217-224.

Mäkinen, J, Piché, R & Ellman, A 2000, 'Fluid Transmission Line Modeling Using a Variational Method', *Journal of Dynamic Systems, Measurement and Control: Transactions of the ASME*, vol. 122, no. 1, pp. 153-162.

Sigmund, P, Robinson, MT, Baskes, MI, Hautala, M, Cui, FZ, Eckstein, W, Yamamura, Y, Hosaka, S, Ishitani, T, Shulga, VI, Harrison, DE, Chakarov, IR, Karpuzo, DS, Kawatoh, E, Shimizu, R, Valkealahti, S, Nieminen, RM, Betz, G, Husinsky, W, Shapiro, MH, Vicaneck, M & Urbassek, HM 1989, 'Round Robin computer simulation of ejection probability in sputtering', *Nuclear Inst. and Methods in Physics Research, B*, vol. 36, no. 2, pp. 110-123. [https://doi.org/10.1016/0168-583X\(89\)90573-9](https://doi.org/10.1016/0168-583X(89)90573-9)

Valkealahti, S, Schou, J, Sørensen, H & Nieminen, RM 1988, 'Ranges and stopping power of KeV electrons in the solid hydrogens', *Nuclear Inst. and Methods in Physics Research, B*, vol. 34, no. 3, pp. 321-331. [https://doi.org/10.1016/0168-583X\(88\)90052-3](https://doi.org/10.1016/0168-583X(88)90052-3)

Valkealahti, S & Nieminen, RM 1986, 'Molecular dynamics simulation of the damage production in Al (110) surface with slow argon ions', *Nuclear Inst. and Methods in Physics Research, B*, vol. 18, no. 1-6, pp. 365-369. [https://doi.org/10.1016/S0168-583X\(86\)80060-X](https://doi.org/10.1016/S0168-583X(86)80060-X)