Electropolymerized polyazulene as active material in flexible supercapacitors. / Suominen, Milla; Lehtimäki, Suvi; Yewale, Rahul; Damlin, Pia; Tuukkanen, Sampo; Kvarnström, Carita.
Research output: Scientific - peer-review › Article

Pyrolysed cellulose nanofibrils and dandelion pappus in supercapacitor application. / Virtanen, Juhani; Pammo, Arno; Keskinen, Jari; Sarlin, Essi; Tuukkanen, Sampo.
In: Cellulose, 24.05.2017.
Research output: Scientific - peer-review › Article

Engineering and Characterization of Bacterial Nanocellulose Films as Low Cost and Flexible Sensor Material. / Mangayil, Rahul; Rajala, Satu; Pammo, Arno; Sarlin, Essi; Luo, Jin; Santala, Ville; Karp, Matti; Tuukkanen, Sampo.
In: ACS Applied Materials & Interfaces, 18.05.2017.
Research output: Scientific - peer-review › Article

Research output: Scientific - peer-review › Anthology

Conclusions. / Lohan, Elena-Simona; Seco-Granados, Gonzalo; Wymeersch, Henk; Nykänen, Ossi; Nurmi, Jari.
Research output: Scientific - peer-review › Chapter

Design and Implementation of IEEE 802.11a/g Receiver Blocks on a Coarse-Grained Reconfigurable Array. / Nouri, Sajjad; Hussain, Waqar; Göhringer, Diana; Nurmi, Jari.
Research output: Scientific - peer-review › Chapter

Efficient fast-convolution based implementation of 5G waveform processing using circular convolution decomposition. / Loulou, Alaa; Yli-Kaakinen, Juha; Renfors, Markku.
Research output: Scientific - peer-review › Conference contribution

Introduction and Book Structure. / Lohan, Elena-Simona; Wymeersch, Henk; Nykänen, Ossi; Nurmi, Jari; Seco-Granados, Gonzalo.
Research output: Scientific - peer-review › Chapter

Mapping the Radio World to Find Us. / Figueiredo E Silva, Pedro; Ferrara, Nunzia; Daniel, Ondrej; Nurmi, Jari; Lohan, Elena-Simona.
Research output: Scientific - peer-review › Chapter

Multi-GNSS: Facts and Issues. / Ferrara, Nunzia; Daniel, Ondrej; Figueiredo E Silva, Pedro; Nurmi, Jari; Lohan, Elena-Simona.
Research output: Scientific - peer-review › Chapter
Reliability study of flexible inkjet- and thermal-printed RFID antennas in high humidity conditions. / Rizwan, Muhammad; Adhur Kutty, Ajith; Kgwadi, Monageng; Drysdale, Timothy D.; Ukkonen, Leena; Virkki, Johanna.
Research output: Scientific - peer-review › Conference contribution

Additive Manufacturing of Antennas from Copper Oxide Nanoparticle Ink: Toward Low-Cost RFID Tags on Paper- and Textile-based Platforms. / Sipilä, Erja; Liu, Jun; Wang, Jianhua; Virkki, Johanna; Björninen, Toni; Cheng, Lianglun; Sydänheimo, Lauri; Ukkonen, Leena.
Research output: Scientific - peer-review › Conference contribution

Introduction to Organic and Printed Electronics. / Nisato, Giovanni ; Lupo, Donald; Ganz, Simone.
Research output: Scientific › Chapter

Market Perspectives and Road Map for Organic Electronics. / Lupo, Donald; Clemens, Wolfgang; Breitung, Sven; Hecker, Klaus.
Research output: Scientific › Chapter

Organic and Printed Electronics : Fundamentals and Applications. / Nisato, Giovanni (Editor); Lupo, Donald (Editor); Ganz, Simone (Editor).
Research output: Professional › Anthology

Structural and Electrical Characterization of Solution-Processed Electrodes for Piezoelectric Polymer Film Sensors. / Rajala, S.; Mettänen, M.; Tuukkanen, S.
Research output: Scientific - peer-review › Article

MULTI-POS: Marie Curie Network in Multi-technology Positioning. / Nurmi, Jari; Lohan, Elena-Simona.
Research output: Scientific - peer-review › Conference contribution

Data-Parallel Implementation of Reconfigurable Digital Predistortion on a Mobile GPU. / Ghazi, Amanullah; Boutellier, Jani ; Anttila, Lauri; Juntti, Markku; Valkama, Mikko.
Research output: Scientific - peer-review › Conference contribution

Sub-band Digital Predistortion for Noncontiguous Transmissions : Algorithm Development and Real-Time Prototype Implementation. / Abdelaziz, Mahmoud; Tarver, Chance; Li, Kaipeng; Anttila, Lauri; Martinez, Raul; Valkama, Mikko; Cavallaro, Joseph R.
Research output: Scientific - peer-review › Conference contribution

Brush-painting and photonical sintering of copper and silver inks on cotton fabric to form antennas for wearable ultra-high-frequency radio-frequency identification tags. / Liu, Jun; Wang, Jianhua; Virkki, Johanna; Björninen, Toni; Sydänheimo, Lauri; Cheng, Lianglun; Ukkonen, Leena.
Research output: Scientific - peer-review › Article

Research output: Scientific - peer-review › Article
ESD qualification data used as the basis for building electrostatic discharge protected areas. / Tamminen, Pasi; Viheriäkoski, Toni; Sydänheimo, Lauri; Ukkonen, Leena.
Research output: Scientific - peer-review › Article

Benchmarking of Factory Level ESD Control. / Viheriäkoski, Toni; Kohtamäki, Jari; Peltoniemi, Terttu; Tamminen, Pasi.
Research output: Scientific - peer-review › Conference contribution

ESD and Disturbance Cases in Electrostatic Protected Areas. / Tamminen, Pasi; Viheriäkoski, Toni; Ukkonen, Leena; Sydänheimo, Lauri.
Research output: Scientific - peer-review › Conference contribution

The effect of USB ground cable and product dynamic capacitance on IEC61000-4-2 qualification. / Tamminen, Pasi; Ukkonen, Leena; Sydänheimo, Lauri.
Research output: Scientific - peer-review › Conference contribution

Uncertainties in Charge Measurements of ESD Risk Assessment. / Viheriäkoski, Toni; Kohtamäki, Jari; Peltoniemi, Terttu; Tamminen, Pasi.
Research output: Scientific - peer-review › Conference contribution

Circularly Polarized Textile Antenna For 2.45 GHz. / Rizwan, Muhammad; Rahmat-Samii, Yahya; Ukkonen, Leena.
Research output: Scientific - peer-review › Conference contribution

The Assessment and Reduction of Motion Artifact in Dry Contact Biopotential Electrodes. / Cömert, Alper.
Tampere : Tampere University of Technology, 2015. 76 p. (Tampere University of Technology. Publication; Vol. 1319).
Research output: Collection of articles › Doctoral Thesis

Passivation of organic light emitting diode anode grid lines by pulsed Joule heating. / Janka, M.; Gierth, R.; Rubingh, J. E.; Abendroth, M.; Eggert, M.; Moet, D. J D; Lupo, D.
Research output: Scientific - peer-review › Article

Effect of magnetic core and higher operational frequency on sensitivity in frequency shift detection in wireless passive minimally invasive intracranial pressure monitoring. / Khan, M.W.A.; Behfar, M.; Björninen, T.; Ukkonen, L.; Sydänheimo, L.
Research output: Scientific - peer-review › Conference contribution

Manufacturing of antennas for passive UHF RFID tags by direct write dispensing of copper and silver inks on textiles. / Björninen, Toni; Virkki, Johanna; Sydänheimo, Lauri; Ukkonen, Leena.
Research output: Scientific - peer-review › Conference contribution

Two-turns antenna and magnetic materials for effective powering of mm-size implant in wireless brain-machine interface system. / Khan, Waqas; Björninen, Toni; Ukkonen, Leena; Sydänheimo, Lauri.
Examples of electromagnetic field (50–100 kHz) emissions from smart meters in Finland. / Pääkkönen, Rauno; Lundström, Marko; Mustaparta, Jari ; Korpinen, Leena.
Research output: Scientific - peer-review › Article

Examples of extremely low-frequency magnetic fields in a Finnish metro station. / Korpinen, Leena; Lähdetie, Artturi; Amundin, Åke; Pippo, Hannu; Sydänheimo, Lauri.
Research output: Scientific - peer-review › Article

Determination of asymmetry of currents and voltages in high voltage power transmission with a long transmission line. / Okun, Oleksandr; Ivanov, Yurii; Korpinen, Leena.
Research output: Scientific - peer-review › Conference contribution

Estimation of induced currents in the human body exposed to non-uniform ELF electric fields. / Tarao, Hiroo; Miyamoto, Hironobu; Hayashi, Noriyuki; Matsumoto, Takashi; Korpinen, Leena; Isaka, Katsuo.
Research output: Scientific - peer-review › Conference contribution

Occupational exposure to magnetic fields while working around a reactor at a 400 kV substation in Finland. / Pääkkönen, Rauno; Korpinen, Leena; Gobba, Fabriziomaria.
Research output: Scientific - peer-review › Conference contribution

Possibility of decreasing 50 Hz electric field exposure with different coveralls under 400 kV power lines. / Korpinen, Leena; Tarao, Hiroo; Pääkkönen, Rauno; Gobba, Fabriziomaria.
Research output: Scientific - peer-review › Conference contribution

Cascoded Power Stage With Automatic Dead Time Generation. / Filanovsky, I.M.; Järvenhaara, J.K.; Tchamov, N.T.
Research output: Scientific - peer-review › Conference contribution

An Asymmetric VHF Self-Oscillating DC-DC Converter with Integrated Transformer. / Akbar, R.; Filanovsky, I.M.; Järvenhaara, J.K.; Tchamov, N.
Research output: Scientific - peer-review › Conference contribution

Cardiac pacemakers in magnetic fields of a shunt reactor at a 400 kV substation. / Korpinen, Leena; Kuisti, Harri; Tarao, Hiroo; Elvoaara, Jarno; Virtanen, Vesa.
Research output: Scientific - peer-review › Article

Self-reported depression and anxiety symptoms and usage of computers and mobile phones among working-age Finns. / Korpinen, Leena; Pääkkönen, Rauno.
Research output: Scientific - peer-review › Article
Inkjet printed single layer high-density circuitry for a MEMS device. / Laurila, Mika-Matti; Soltani, Ayat; Mäntysalo, Matti.
Research output: Scientific - peer-review › Conference contribution

Emission of Smart Meter Electric Fields (50 -100 kHz) in Finland. / Pääkkönen, Rauno; Lundström, Marko; Mustaparta, Jari; Korpinen, Leena.
Research output: Scientific - peer-review › Conference contribution

Examples of Electromagnetic Field Sources in an Indoor Distribution Substation. / Pääkkönen, Rauno; Lundström, Marko; Mustaparta, Jari; Korpinen, Leena.
Research output: Scientific - peer-review › Conference contribution

Examples of Variation in Measured ELF Electric Fields under 400 kV Power Lines. / Korpinen, Leena; Pääkkönen, Rauno; Tarao, Hiroo; Okun, Oleksandr; Sydänheimo, Lauri.
Research output: Scientific - peer-review › Conference contribution

Impact of Bending on the Performance of Circularly Polarized Wearable Antenna. / Rizwan, Muhammad; Sydänheimo, Lauri; Ukkonen, Leena.
Research output: Scientific - peer-review › Conference contribution

Influences of High Relative Humidity on Extremely Low Frequency Electric Field Measurements. / Korpinen, Leena; Tarao, Hiroo; Pääkkönen, Rauno; Okun, Oleksandr; Sydänheimo, Lauri.
Research output: Scientific - peer-review › Conference contribution

Numerical Estimation of Muscle Conductivity in Terms of Human Body Internal Resistance. / Tarao, Hiroo; Aga, Katsuaki; Okun, Oleksandr; Korpinen, Leena.
Research output: Scientific - peer-review › Conference contribution

Possible Methods for Limiting Exposure to the Electric Fields of High Voltage Power Lines on Active Implantable Medical Devices in the Human Body. / Korpinen, Leena; Okun, Oleksandr; Sydänheimo, Lauri.
Research output: Scientific - peer-review › Conference contribution

Evaluating the electrode measurement sensitivity of subdermal electroencephalography electrodes. / Mendes, Miguel Rodrigues; Subramaniyam, Narayan Puthannadam; Wendel-Mitoraj, Katrina.
Research output: Scientific - peer-review › Conference contribution

Electro-textiles – The enabling technology for wearable antennas in wireless body-centric sensing systems. / Koski, Karoliina; Moradi, Elham; Hasani, Masoumeh; Virkki, Johanna; Björninen, Toni; Rahmat-Samii, Yahya; Ukkonen, Leena.
Research output: Scientific - peer-review › Conference contribution

**Determining Potentially Unstable Operating Points Using Time-Varying Root-Locus.** / Järvenhaara, Jani; Tchamov, Nikolay T.; Filanovsky, Igor M.
Research output: Scientific - peer-review › Conference contribution

**Electrical and thermal analysis of frequency dependent filamentary switching in printed rectifying diodes.** / Heljo, P. S.; Schmidt, C.; Klengel, R.; Majumdar, H. S.; Lupo, D.
In: Organic Electronics, Vol. 20, 05.2015, p. 69-75.
Research output: Scientific - peer-review › Article

**Comparison of Sintering Methods and Conductive Adhesives for Interconnections in Inkjet-Printed Flexible Electronics.** / Niittynen, Juha.
Research output: Collection of articles › Doctoral Thesis

**Parametric optimization of inkjet printing and optical sintering of nanoparticle inks.** / Sipilä, E.; Ren, Y.; Virkki, J.; Sydänheimo, L.; Tentzeris, M.M.; Ukkonen, L.
Research output: Scientific - peer-review › Conference contribution

**Implementation and wireless readout of passive UHF RFID strain sensor tags based on electro-textile antennas.** / Long, Feiyuan; Zhang, Xiao Dong; Björninen, Toni; Virkki, Johanna; Sydänheimo, Lauri; Chan, Yan-Cheong; Ukkonen, Leena.
European Conference on Antennas and Propagation April 12-17, 2015 • Lisbon, Portugal. IEEE, 2015.
Research output: Scientific - peer-review › Conference contribution

**Comparison of laser and intense pulsed light sintering (IPL) for inkjet-printed copper nanoparticle layers.** / Niittynen, Juha; Sowade, Enrico; Kang, Hyunkyoo; Baumann, Reinhard R.; Mäntysalo, Matti.
In: Scientific Reports, Vol. 5, 8832, 06.03.2015.
Research output: Scientific - peer-review › Article

**Antenna design considerations for far field and near field wireless body-centric systems.** / Moradi, E.; Koski, K.; Hasani, M.; Rahmat-Šamii, Y.; Ukkonen, L.
Research output: Scientific - peer-review › Conference contribution

**Thermal transport characteristics of human skin measured in vivo using ultrathin conformal arrays of thermal sensors and actuators.** / Webb, R. Chad; Pielak, Rafal M.; Bastien, Philippe; Ayers, Joshua; Niittynen, Juha; Kurniawan, Jonas; Manco, Megan; Lin, Athena; Cho, Nam Heon; Malychuk, Viktor; Balooch, Guive; Rogers, John A.
Research output: Scientific - peer-review › Article

**Characterization and Design Methodologies for Wearable Passive UHF RFID Tag Antennas for Wireless Body-Centric Systems.** / Koski, Karoliina.
Tampere University of Technology, 2015. 55 p. (Tampere University of Technology. Publication; Vol. 1274).
Research output: Collection of articles › Doctoral Thesis

**2.4 GHz inkjet-printed RF energy harvester on bulk cardboard substrate.** / Khonsari, Zahra; Björninen, Toni; Tentzeris, Manos M.; Sydänheimo, Lauri; Ukkonen, Leena.
Research output: Scientific - peer-review › Conference contribution

**Highlights of 2014 IEEE RFID Technology and Applications Conference.** / Koski, Karoliina; Moradi, Elham; Björninen, Toni ; Apostolos, Georgiadis.
Accidents and Close Call Situations Connected to the Use of Mobile Phones in Working-Age People ≥ 50 Years Old. / Korpinen, Leena; Pääkkönen, Rauno; Gobba, Fabriziomaria.
Research output: Scientific › peer-review › Article

A Novel Enhanced-Performance Flexible RFID-Enabled Embroidered Wireless Integrated Module for Sensing Applications. / Hasani, Masoumeh; Vena, Arnaud; Sydänheimo, Lauri; Tentzeris, Manos M.; Ukkonen, Leena.
Research output: Scientific › peer-review › Article

A Rapid Switch Bridge Selection Method for Fully Integrated DCDC Buck Converters. / Östman, Kim B.; Järvenhaara, Jani K.
Research output: Scientific › peer-review › Article

Backscattering neural tags for wireless brain-machine interface systems. / Moradi, Elham; Amendola, Sara; Bjöminen, Toni; Sydänheimo, Lauri; Carmena, Jose M.; Rabaey, Jan M.; Ukkonen, Leena.
Research output: Scientific › peer-review › Article

Biodegradable passive resonance sensor : Fabrication and initial testing. / Salpavaara, Timo; Ellä, Ville; Kellomäki, Minna; Lekkala, Jukka.
Research output: Scientific › peer-review › Conference contribution

Comparison of methods to define power line and substation’s busbar wire capacitances in electric field calculation task. / Okun, Oleksandr; Korpinen, Leena.
Research output: Scientific › peer-review › Article

DC-DC Converter Power Stage With Cascoded Transistors And Automatic Dead Time Generation. / Filanovsky, Igor; Järvenhaara, Jani; Tchamov, Nikolay.
Research output: Scientific › peer-review › Conference contribution

Research output: Scientific › peer-review › Conference contribution

Design and Implementation of a Power-aware FFT Core for OFDM-based DSA-enabled Cognitive Radios. / Airoldi, Roberto; Campi, Fabio; Cucchi, Manuele; Revanna, Deepak; Anjum, Omer; Nurmi, Jari.
Research output: Scientific › peer-review › Article
Design and Implementation of Fully 3D Miniaturized Passive UHF RFID Tag for Sensing Applications. / Hasani, Masoumeh; Sydänheimo, Lauri; Ukkonen, Leena. 
Research output: Scientific - peer-review » Conference contribution

Design, Implementation and Analysis of a Run-time Configurable Memory Management Unit on FPGA. / Shamani, Farid; Fakour Sevom, Vida; Numri, Jari; Ahonen, Tapani. 
Research output: Scientific - peer-review » Conference contribution

Embroidered Textile Antennas for Wireless Body-Centric Communication and Sensing. / Ukkonen, Leena; Sydänheimo, Lauri; Rahmat-Samii, Yahya. 
Research output: Scientific - peer-review » Conference contribution

Ergonomics Aspects of Work with Computers. / Korpinen, Leena; Pääkkönen, Rauno; Gobba, Fabriziomaria. 
Research output: Scientific - peer-review » Article

Example measurements of exposure to ELF magneticfields on the metro station in Finland. / Korpinen, Leena; Lähdetie, Artturi; Amundin, Åke; Piippo, Hannu; Sydänheimo, Lauri. 
Research output: Scientific - peer-review » Article

Examples of occupational exposure to electric and magnetic fields at 110-kV gas-insulated substations (GISs). / Korpinen, Leena; Pääkkönen, Rauno. 
Research output: Scientific - peer-review » Article

Examples of the Teaching of the Health Questions of Electric and Magnetic Fields at Tampere University of Technology in Finland. / Korpinen, Leena; Pääkkönen, Rauno. 
Research output: Scientific - peer-review » Article

Exposure to RFfields during the remote readings of the smart meter in Finland. / Pääkkönen, Rauno; Lundström, Marko; Mustaparta, Jari; Korpinen, Leena. 
Research output: Scientific - peer-review » Article

Flash Reduction of Inkjet Printed Graphene Oxide on Flexible Substrates for Electronic Applications. / Akbari, Mitra; Sydänheimo, Lauri; Juuti, Jari; Ukkonen, Leena. 
Research output: Scientific - peer-review » Conference contribution

Head-mounted Display with Mid-air Tactile Feedback. / Sand, Antti; Rakkolainen, Ismo; Isokoski, Poika; Kangas, Jari; Raisamo, Roope; Palouuori, Karri. 
Research output: Scientific - peer-review » Conference contribution

Health surveillance according to the new EU directive 2013/35/EU: possible criteria. / Korpinen, Leena; Gobba, Fabriziomaria. 
Research output: Scientific - peer-review » Article
Improved Interaction for Mid-Air Projection Screen Technology. / Palovuori, Karri; Rakkolainen, Ismo.
Handbook of Research on Interactive Information Quality in Expanding Social Network Communications. IGI Global, 2015. p. 84-103.
Research output: Scientific - peer-review › Chapter

Inkjet-printed push-buttons for epidermal electronics. / Vuorinen, Tiina; Niittynen, Juha; Kankkunen, Timo; Lammi, Toni; Mäntysalo, Matti.
Research output: Scientific - peer-review › Conference contribution

Inkjet-printed wideband planar monopole antenna on cardboard for RF energy-harvesting applications. / Saghlatoon, Hossein; Björninen, Toni; Sydänheimo, Lauri; Tentzeris, Manos M.; Ukkonen, Leena.
Research output: Scientific - peer-review › Article

Inkjet Printing, Laser Based Micromachining and Micro 3D Printing Technologies for MEMS. / Fischer, Andreas C.; Mäntysalo, Matti; Niklaus, Frank.
Research output: Scientific - peer-review › Chapter

LED Lighting Interviews and Assessment in Forest Machines. / Pääkkönen, Rauno; Gobba, Fabriziomaria; Korpinen, Leena.
Research output: Scientific - peer-review › Article

Measurements of magnetic fields and contact currents produced by domestic induction hobs. / Tarao, Hiroo; Korpinen, Leena; Hayashi, Noriyuki; Isaka, Katsuuo.
Research output: Scientific - peer-review › Article

Occupational and environmental exposure to extremely low frequency magnetic fields in a large group of workers. / Gobba, Fabriziomaria; Rossi, Paolo; Bravo, Giulia; Contessa, Gian Marco; Korpinen, Leena.
Research output: Scientific - peer-review › Article

OE-A Roadmap for Organic and Printed Electronics. / Clemens, Wolfgang (Editor); Lupo, Donald (Editor); Hecker, Klaus (Editor); Breitung, Sven (Editor).
6 ed. OE-A (Organic and Printed Electronics Association), 2015.
Research output: Professional › Anthology

Operation and Design of VHF Self-Oscillating DC-DC Converter with Integrated Transformer. / Akbar, Rehman; Filanovsky, Igor; Järvenhaara, Jani; Tchamov, Nikolay.
Research output: Scientific - peer-review › Conference contribution

Possibility to decreasing the 50Hz electric field exposure with different jackets. / Korpinen, Leena; Pääkkönen, Rauno.
Research output: Scientific - peer-review › Article

Possible Exposure of Persons with Cardiac Pacemakers to Extremely Low Frequency (ELF) Electric and Magnetic Fields. / Korpinen, Leena; Pääkkönen, Rauno; Gobba, Fabriziomaria; Virtanen, Vesa.
Preliminary measurements of smart meter electromagnetic field (50-100kHz) emissions in Finland. / Pääkkönen, Rauno; Lundström, Marko; Mustaparta, Jari; Korpinen, Leena. 

Printed hybrid systems for healthcare. / Mäntysalo, Matti; Vuorinen, Tiina; Nurmentaus, Sampo. 

Sähkö- ja magneettikenttien mahdolliset vaikutukset rytmihäiriöhdistimien toimintaan 400 kV:n voimajohdon ala. / Korpinen, Leena; Penttilä, Mika; Pääkkönen, Rauno; Virtanen, Vesa. 

The effects of recurrent stretching on the performance of electro-textile and screen-printed ultra-high-frequency radio-frequency identification tags. / Virkki, Johanna; Björninen, Toni; Meriampi, Sari; Sydänheimo, Lauri; Ukkonen, Leena. 

The heat is on: thermal input for immaterial interaction. / Palovuori, Karri; Rakkolainen, Ismo. 

Thermal Management in Long-Wavelength Flip-Chip Semiconductor Disk Lasers. / Rantamäki, Antti; Saarinen, Esa J.; Lyytikäinen, Jari; Heikkinen, Juuso; Kontio, Juha M.; Lahtonen, Kimmo; Valden, Mika; Okhotnikov, Oleg. 

Thermal Modeling for Sintering of Inkjet-Printed metallic Structures. / Niittynen, Juha; Kankkunen, Timo; Mäntysalo, Matti. 

Stand-alone GNSS time synchronization architecture. / Paakki, T.; Della Rosa, F.; Nurmi, J. 

A Minimally Invasive 64-Channel Wireless μeCoG Implant. / Muller, Rikky; Le, Hanh Phuc; Li, Wen; Ledochowitsch, Peter; Gambini, Simone; Björninen, Toni; Koralek, Aaron; Carmen, Jose M.; Maharbiz, Michel M.; Alon, Elad; Rabaey, Jan M. 

Low-cost, solution processable carbon nanotube supercapacitors and their characterization. / Lehtimäki, Suvi; Tuukkanen, Sampo; Pörhönen, Juho; Moilanen, Pasi; Virtanen, Jorma; Honkanen, Mari; Lupo, Donald. 

Printable, Transparent, and Flexible Touch Panels Working in Sunlight and Moist Environments. / Vuorinen, Tiina; Zakrzewski, Mari; Rajala, Satu; Lupo, Donald; Vanhala, Jukka; Palovuori, Karri; Tuukkanen, Sampo. 
Performance of printable supercapacitors in an RF energy harvesting circuit. / Lehtimäki, Suvi; Li, Miao; Salomaa, Jarno; Pörhönen, Juho; Kalanti, Antti; Tuukkanen, Sampo; Heljo, Petri; Halonen, Kari; Lupo, Donald.
Research output: Scientific - peer-review › Article

Stretching of solution processed carbon nanotube and graphene nanocomposite films on rubber substrates. / Tuukkanen, Sampo; Hoikkanan, Maija; Poikelispaä, Minna; Honkanen, Mari; Vuorinen, Tiina; Kakkonen, Markus; Vuorinen, Jyrki; Lupo, Donald.
Research output: Scientific - peer-review › Article

Advances in antenna designs for UHF RFID tags mountable on conductive items. / Björninen, Toni; Sydänheimo, Lauri; Ukkonen, Leena; Rahmat-Samii, Yahya.
Research output: Scientific - peer-review › Article

A Fully Inkjet-Printed Chipless RFID Gas and Temperature Sensor on Paper. / Vena, Arnaud; Sydänheimo, Lauri; Ukkonen, Leena; Tentzeris, Manos M.
Research output: Scientific - peer-review › Conference contribution

A Fully Inkjet-Printed Wireless and Chipless Sensor for CO2 and Temperature detection. / Vena, Arnaud; Sydänheimo, Lauri; Tentzeris, Manos M.; Ukkonen, Leena.
Research output: Scientific - peer-review › Article

Research output: Scientific - peer-review › Article

Alternative sintering methods compared to conventional thermal sintering for inkjet printed silver nanoparticle ink. / Niittynen, Juha; Abbel, Robert; Mäntysalo, Matti; Pereira, Jolke; Schubert, Ulrich S.; Lupo, Donald.
Research output: Scientific - peer-review › Article

Altistaako vai ei - Etäluettavat sähkömittarit kartoitettiin. / Korpinen, Leena; Pääkkönen, Rauno.
Research output: Professional › Article

A miniaturized 64-channel 225μW wireless electrocorticographic neural sensor. / Muller, Rikky; Le, Hanh-Phuc; Li, Wen; Ledochowitsch, Peter; Gambini, Simone; Björninen, Toni; Koralek, Aaron; Carmina, Jose M.; Mahbariz, Michel M.; Alon, Elad; Rabaey, Jan M.
Research output: Scientific - peer-review › Conference contribution

Analysis of Biotelemetric Interrogation of Chronically Implantable Intracranial Capacitive Pressure Sensor. / Moradi, Elham ; Björninen, Toni; Sydänheimo, Lauri; Ukkonen, Leena.
Research output: Scientific - peer-review › Conference contribution

A New Approach and Analysis of Modelling the Human Body in RFID-Enabled Body-Centric Wireless Systems. / Koski, Karoliina; Björninen, Toni; Sydänheimo, Lauri; Ukkonen, Leena; Rahmat-Samii, Yahya.


A novel RFID-enabled strain sensor using the double power measurement technique. / Hasani, Masoumeh; Vena, Arnaud; Sydänheimo, Lauri; Ukkonen, Leena; Tentzeris, Manos M. 2014 IEEE MTT-S International Microwave Symposium (IMS), 1-6 June 2014, Tampa, FL, USA. Institute of Electrical and Electronics Engineers IEEE, 2014. p. 1-4.


Cardiac pacemakers and electromagnetic fields: comparison of experimental results in France and Finland. / Magne, Isabelle; Korpinen, Leena; Souques, Martine.

Characterization of Graphene-Based Inkjet Printed Samples on Flexible Substrate for Wireless Sensing Applications. / Akbari, Mitra; Sydänheimo, Lauri; Juuti, Jari; Vuorinen, Jyrki; Ukkonen, Leena.

Characterization of Laser Sintering of Copper Nanoparticle Ink by FEM and Experimental Testing. / Niittynen, Juha; Mäntysalo, Matti.

Comparison of electric field exposure measurement methods under power lines. / Korpinen, Leena; Kuisti, Harri; Tarao, Hiroo; Pääkkönen, Rauno; Elovaara, Jarmo.

Comparison of inkjet-printed and microfabricated loop antennas for implants in wireless brain-machine interface systems. / Moradi, Elham; Björninen, Toni; Sydänheimo, Lauri; Ukkonen, Leena.


Context Recognition in a Smart Home: Living Experiment. / Vainio, Antti-Matti; Pensas, Harri; Vanhala, Jukka.

Co-operation between Industry, Authorities and Research Institutes in Environmental and Occupational Exposure to Electric and Magnetic Field Questions in Finland. / Pääkkönen, R.; Korpinen, L.

Current densities and total contact currents for 110 and 220 kV power line tasks. / Korpinen, Leena; Kuisti, Harri; Elovaara, Jarmo.
Design and Optimization of mm-Size Implantable and Wearable On-Body Antennas for Biomedical Systems. / Amendola, Sara; Moradi, Elham; Koski, Karoliina; Björninen, Toni; Sydänheimo, Lauri; Ukkonen, Leena; Rabaey, Jan M.; Rahmat-Samii, Yahya.


Research output: Scientific - peer-review › Conference contribution

Dual port temperature sensor tag for passive UHF RFID systems. / Virtanen, J.; Yang, F.; Ukkonen, L.; Elsherbeni, A.Z.; Babar, A.A.; Sydänheimo, L.


Research output: Scientific - peer-review › Article

Effect of Sintering Method on the Read Range of Brush-painted Silver Nanoparticle UHF RFID Tags on Wood and Polyimide Substrates. / Sipilä, Erja; Virkki, Johanna; Sydänheimo, Lauri; Ukkonen, Leena.


Research output: Scientific - peer-review › Conference contribution

Electrostatic Threats in Hospital Environment. / Viheriäkoski, Toni; Kokkonen, Mika; Tamminen, Pasi; Karja, Eira; Hillberg, Jukka; Smallwood, Jeremy.


Research output: Scientific - peer-review › Conference contribution

Electro-Textile UHF RFID Patch Antennas for Positioning and Localization Applications. / Koski, Karoliina; Lohan, Elena Simona; Sydänheimo, Lauri; Ukkonen, Leena; Rahmat-Samii, Yahya.


Research output: Scientific - peer-review › Conference contribution

ESD Sensitivity of 01005 Chip Resistors and Capacitors. / Tamminen, Pasi; Sydänheimo, Lauri; Ukkonen, Leena.


Research output: Scientific - peer-review › Conference contribution

Example measurements of exposure to ELF magnetic fields on the metro station in Finland. / Korpinen, Leena; Lähdetie, Artturi; Amundin, Åke; Piippo, Hannu; Sydänheimo, Lauri.


Research output: Scientific - peer-review › Conference contribution

Examples of the Teaching of the Health Issues of Electromagnetic Fields at Tampere University of Technology in Finland. / Korpinen, L.; Pääkkönen, R.


Research output: Scientific - peer-review › Conference contribution

Examples se desures de l'exposition aux champs magnétiques ELF dans une station de métro en Finlande. / Korpinen, Leena; Lähdetie, Artturi; Amundin, Åke; Piippo, Hannu; Sydänheimo, Lauri.


Research output: Scientific - peer-review › Conference contribution

Experimental Study on Brush-Painted Metallic Nanoparticle UHF RFID Tags on Wood Substrates. / Sipilä, Erja; Virkki, Johanna; Sydänheimo, Lauri; Ukkonen, Leena.


Research output: Scientific - peer-review › Article
Experimental Study on the Washing Durability of Electro-Textile UHF RFID Tags. / Fu, Yan Yan; Chan, Yuk Lam; Yang, Ming Hao; Chan, Yan-Cheong; Virkki, Johanna; Björninen, Toni; Sydänheimo, Lauri; Ukkonen, Leena.
Research output: Scientific - peer-review › Article

Exposure to EMF and health issues. / Gobba, Fabriziomaria; Korpinen, Leena.
Research output: Scientific - peer-review › Conference contribution

Exposure to RF fields during the remote readings of the smart meter in Finland. / Pääkkönen, Rauno; Lundström, Marko; Mustaparta, Jari; Korpinnen, Leena.
Research output: Scientific - peer-review › Conference contribution

Fabrication and characterization of solution-processed carbon nanotube supercapacitors. / Lehtimäki, Suvi; Pörhönen, Juho; Tuukkanen, Sampi; Mollanen, Pasi; Virtanen, Jorma; Lupo, Donald.
Research output: Scientific - peer-review › Conference contribution

Field Collapse Event ESD Test Method. / Tamminen, Pasi; Viheriäkoski, Toni; Reinvuo, Tuomas; Sydänheimo, Lauri; Ukkonen, Leena.
Research output: Scientific - peer-review › Conference contribution

Research output: Scientific - peer-review › Article

Health surveillance according to the new EU directive 2013/35/EU: possible criteria. / Gobba, Fabriziomaria; Korpinen, Leena.
Research output: Scientific - peer-review › Conference contribution

High Throughput Electrochemical Method for Contact Optimization in Printed Rectifying Diodes. / Heljo, Petri S.; Majumdar, Himadri S.; Lupo, Donald.
Research output: Scientific - peer-review › Conference contribution

Impact of antenna-fiber alignment and recurrent stretching on the performance of passive UHF RFID tags based on textile antennas. / Zhang, Xiao Dong; Yang, Ming Hao; Virkki, Johanna; Björninen, Toni; Merilampi, Sari; Sydänheimo, Lauri; Chan, Yan-Cheong; Ukkonen, Leena.
Research output: Scientific - peer-review › Conference contribution

Impact of Recurrent Stretching on the Performance of Electro-textile UHF RFID Tags. / Björninen, Toni; Virkki, Johanna; Sydänheimo, Lauri; Ukkonen, Leena.
Impact of Recurrent Washing on the Performance of Electro-textile UHF RFID Tags. / Björninen, Toni; Virkki, Johanna; Sydänheimo, Lauri; Ukkonen, Leena.

Impedance Considerations on MEA - the Effect of Electrode Materials and Coatings. / Ryynänen, Tomi; Sivasubramaniapandian, Manoj; Peltola, Marja; Nariklahti, Susanna; Lekkala, Jukka.

Implantable Cardioverter Defibrillators in Magnetic Fields of a 400 kV Substation. / Korpinen, Leena; Kuisti, Harri; Tarao, Hiroo; Elvoara, Jarmo; Virtanen, Vesa.

Implants cardiaques et champs électromagnétiques : comparaison de résultats en France et en Finlande. / Magne, Isabelle; Souques, Martine; Korpinen, Leena.

Inkjet Filling of TSVs with Silver Nanoparticle Ink. / Khorramdel, Behnam; Mäntysalo, Matti.

Inkjet-Printed GSM900 Band RF Power Harvester on Paper-Based Substrates. / Saghlatoon, Hossein; Khonsari, Zahra; Sydänheimo, Lauri; Tentzens, Manos M.; Ukkonen, Leena.

Inkjet printed nano-particle Cu process for fabrication of re-distribution layers on silicon wafer. / Soltani, Ayat; Kumpulainen, Tero; Mäntysalo, Matti.

Inkjet printed wireless biosensors on stretchable substrate. / Sillanpää, Hannu; Halonen, Eerik; Liimatta, Toni; Mäntysalo, Matti.

Integration of inkjet and RF SoC technologies to fabricate wireless physiological monitoring system. / Sillanpää, Hannu; Vehkaoja, Antti; Vorobiev, Dmitri; Nurmentaus, Sampo; Lekkala, Jukka; Mäntysalo, Matti.
Research output: Scientific - peer-review › Conference contribution

L’enseignement sur « questions sur la santé et exposition aux champs électromagnétiques » à l’université de technologie de Tampere en Finlande. / Korpinen, Leena.
Research output: Scientific - peer-review › Conference contribution

Measurements of magnetic fields and contact currents produced by domestic induction hobs. / Tarao, Hiroo; Korpinen, Leena; Hayashi, Noriyuki; Isaka, Katsuo.
Research output: Scientific - peer-review › Conference contribution

Mesures préliminaires des émissions de champ électromagnétique (50-100kHz) d’un compteur intelligent en Finlande. / Pääkkönen, Rauno; Lundström, Marko; Mustaparta, Jari; Korpinen, Leena.
Research output: Scientific - peer-review › Conference contribution

Miniature implantable and wearable on-body antennas: Towards the new era of wireless body-centric systems. / Rao, Sudhakar; Llombart, Nuria; Moradi, Elham; Koski, Karolina; Björninen, Toni; Sydänheimo, Lauri; Rabaey, Jan M.; Carmen, Jose M.; Rahmat-Samii, Yahya; Ukkonen, Leena.
Research output: Scientific - peer-review › Article

Modelling of Joule heating based self-alignment method for metal grid line passivation. / Janka, Marika; Raumonen, Pasi; Tuukkanen, Sampo; Lupo, Donald.
Research output: Scientific - peer-review › Conference contribution

Occupational and environmental exposure to extremely low frequency-magnetic fields in a large group of workers. / Gobba, Fabriziomaria; Rossi, Paolo; Bravo, Giulia; Contessa, Gian Marco; Korpinen, Leena.
Research output: Scientific - peer-review › Conference contribution

Optimisation of manufacturing parameters for inkjet-printed and photonically sintered metallic nanoparticle UHF RFID tags. / Ren, Y.; Virkki, J.; Sydänheimo, L.; Ukkonen, L.
Research output: Scientific - peer-review › Article

Optimization of Inkjet Printing of Patch Antennas on Low-Cost Fibrous Substrates. / Saghlatoon, Hossein; Sydänheimo, Lauri; Ukkonen, Leena; Tentzeris, Manos.
Research output: Scientific - peer-review › Article

Optimization of large-area OLED current distribution grids with self-aligned passivation. / Janka, M.; Saukko, E.; Raumonen, P.; Lupo, D.
Research output: Scientific - peer-review › Article

Optimized RF/microwave antennas and circuits on low-cost fibrous substrates using inkjet-printing technology. / Saghlatoon, Hossein; Sydänheimo, Lauri; Ukkonen, Leena; Tentzeris, Manos M.
Research output: Scientific - peer-review › Conference contribution
Optimizing investment in ESD control. / Smallwood, Jeremy; Tamminen, Pasi; Viheriäkoski, Toni.
Research output: Scientific - peer-review › Conference contribution

Organic Rectifying Diode and Circuit for Wireless Power Harvesting at 13.56 MHz. / Li, Miao; Heljo, Petri S.; Lupo, Donald.
Research output: Scientific - peer-review › Article

Path-Loss Model of Embroidered Passive RFID Tag on Human Body for Indoor Positioning Applications. / Hasani, Masoumeh; Lohan, Elena-Simona; Sydänheimo, Lauri; Ukkonen, Leena.
Research output: Scientific - peer-review › Conference contribution

Possibility to decreasing the 50 Hz electric field exposure with different jackets. / Korpinen, Leena; Pääkkönen, Rauno.
Research output: Scientific - peer-review › Conference contribution

Possible criteria for health surveillance based on the new directive. / Gobba, Fabriziomaria; Korpinen, Leena.
Research output: Scientific - peer-review › Conference contribution

Preliminary measurements of smart meter electromagnetic field (50-100 kHz) emissions in Finland. / Pääkkönen, Rauno; Lundström, Marko; Mustaparta, Jari; Korpinen, Leena.
Research output: Scientific - peer-review › Conference contribution

Research output: Scientific - peer-review › Conference contribution

Quadrature Channel Calibration with a Pendulum for Accurate Displacement Measurement with CW Doppler Radar. / Zakrzewski, Mari; Palovuori, Karri; Vanhala, Jukka.
Research output: Scientific - peer-review › Conference contribution

Quadrature Imbalance Compensation With Ellipse-Fitting Methods for Microwave Radar Physiological Sensing. / Zakrzewski, Mari; Singh, Aditya; Yavari, Ehsan; Gao, Xiaomeng; Boric-Lubecke, Olga; Vanhala, Jukka; Palovuori, Karri.
Research output: Scientific - peer-review › Article

Reliability of Flex-to-Flex Interconnections on Inkjet-Printed PCBs Using Electrically Conductive Adhesives. / Niittynen, Juha; Koskinen, Santtu; Mäntysalo, Matti; Killunen, Janne; Pippola, Juha; Frisk, Laura.
Research output: Scientific - peer-review › Conference contribution


Unconstrained Night-Time Heart Rate Monitoring with Capacitive Electrodes. / Vehkaoja, A.; Salo, A.; Peltokangas, M.; Verho, J.; Salpavaara, T.; Lekkala, J.
Research output: Scientific - peer-review › Conference contribution

Upper limb musculoskeletal disorders in healthcare personnel. / Occhionero, Vincenzo; Korpinen, Leena; Gobba, Fabriziomaria.
Research output: Scientific - peer-review › Article

Using Ambient Communication and Social Networking Technologies to Reduce Loneliness of Elders. / Pensas, Harri; Vainio, Antti-Matti; Garschall, Markus; Kiviäkki, Tero; Konakas, Stratis; Costicoglou, Socrates; Vanhala, Jukka.
Research output: Scientific - peer-review › Conference contribution

Wireless testing of ink-jet printed mm-size gold implant antennas for brain-machine interfaces. / Moradi, Elham; Amendola, Sara; Björninen, Toni; Sydänheimo, Lauri; Ukkonen, Leena; Carmena, Jose M.; Rabaei, Jan M.
Research output: Scientific - peer-review › Conference contribution

WLAN and RFID propagation channels for hybrid indoor positioning. / Lohan, Elena-Simona; Koski, Karoliina; Talvitie, Jukka; Ukkonen, Leena.
Research output: Scientific - peer-review › Conference contribution

Workers at particular risk: the case of medical implants. / Korpinen, Leena; Souques, Martine.
Research output: Scientific - peer-review › Conference contribution

Arterial pulse waves measured with EMFi and PPG sensors and comparison of the pulse waveform spectral and decomposition analysis in healthy young and elderly subjects. / Huotari, Matti; Vehkaoja, Antti; Määttä, Kari; Röning, Juha.
Research output: Scientific - peer-review › Article

Capacitive facial activity measurement. / Rantanen, Ville; Kumpulainen, Pekka; Venesvirta, Hanna; Verho, Jarmo; Spakov, Oleg; Lylykangas, Jani; Vetek, Akos; Surakka, Veikko; Lekkala, Jukka.
Research output: Scientific - peer-review › Article

Capacitive Measurement of Facial Activity Intensity. / Rantanen, Ville; Venesvirta, Hanna; Spakov, Oleg; Verho, Jarmo; Vetek, Akos; Surakka, Veikko; Lekkala, Jukka.
Research output: Scientific - peer-review › Article

Comparison of design measures to reduce 50-Hz magnetic fields of high voltage power objects. / Okun, O.; Shevchenko, S.; Korpinen, L.
Current densities and total contact currents associated with 400kV power line tasks. / Korpinen, Leena; Kuisti, Harri; Elovaara, Jarmo.
Research output: Scientific - peer-review › Article

Electromagnetic Modelling and Measurement of Antennas for Wireless Brain-Machine Interface Systems. / Björninen, Toni; Moradi, Elham; Sydänheimo, Lauri; Carmena, Jose M.; Rabaey, Jan M.; Ukkonen, Leena.
Research output: Scientific - peer-review › Conference contribution

Face-hugging device for technology mediated human-human interaction. / Venesvirta, Hanna; Surakka, Veikko; Lylkyngas, Jani; Rantanen, Ville; Spakov, Oleg; Verho, Jarmo; Vetek, Akos; Lekkala, Jukka.
Research output: Scientific - peer-review › Conference contribution

Face Interface: Using voluntary gaze direction and facial muscle activations for human-computer interaction. / Tuisku, Outi; Surakka, Veikko; Rantanen, Ville; Lekkala, Jukka.
Research output: Scientific - peer-review › Conference contribution

Improved loop matching techniques and other alternatives to achieve broadband impedance matching in antennas for far field RFID tags. / Björninen, Toni.
Research output: Scientific › Article

Mielenkiintoinen direktiivi työntekijöiden sähkömagneettisille kentille altistumisesta valmistui. / Korpinen, Leena; Pääkkönen, Rauno.
Research output: Professional › Article

Research output: Scientific - peer-review › Conference contribution

Numerical estimations of induced and contact currents in human body in contact with a car in 60 Hz electric fields. / Tarao, Hiroo; Hayashi, Noriyuki; Korpinen, Leena; Matsumoto, Takashi; Isaka, Katsuo.
Research output: Scientific - peer-review › Conference contribution

Occupational exposure to electric and magnetic fields whilst working around power transformers at 110 kV substations in Tampere, Finland. / Pääkkönen, Rauno; Korpinen, Leena; Gobba, Fabriziomaria.
Research output: Scientific - peer-review › Conference contribution
Pulse waveforms are an indicator of the condition of vascular system. / Huotari, Matti; Vehkaoja, Antti; Määttä, Kari; Kostamovaara, Juha.
Research output: Scientific - peer-review » Conference contribution

Research output: Scientific - peer-review » Conference contribution

Sähkö- ja elektronikateollisuuden ympäristökesymykset. / Korpinen, Leena; Alanko, Tommi.
Tampereen Teknillinen Yliopisto, 2013. 120 p. (Tampereen teknillinen yliopisto. Elektroniikan ja tietoliiketekniikan laitos. Opetusmoniste; No. 1).
Research output: Professional » Book

Testing Cardiac Pacemakers and Implantable cardioverter defibrillators (ICD) with a human-shaped phantom in the electric and magnetic fields of 400-kV power lines and of 400-kV substations. / Kuisti, H.; Korpinen, L.; Elovaara, J.; Virtanen, V.
Research output: Scientific - peer-review » Conference contribution

Reliability of UHF RFID tags in humid environments. / Saarinen, Kirsi; Frisk, Laura.
Research output: Scientific - peer-review » Conference contribution

Menetelmä visuaalisen informaation generoinnista. / Palovuori, Karri (Inventor).
Patent No.: FI 91109.
Research output: Scientific » Patent