

Active-passive two-way ranging protocol for positioning systems = Aktiv-passiivne kauguste mõõtmise protokoll positsioneerimissüsteemidele

Laadung, Taavi 2023 <https://doi.org/10.23658/taltech.26/2023> <https://digikogu.taltech.ee/et/Item/e9906a57-6c88-4a98-860e-d2c567a3109c>
https://www.ester.ee/record=b5567510*est

Active-passive two-way ranging using UWB

Laadung, Taavi; Ulp, Sander; Alam, Muhammad Mahtab; Le Moullec, Yannick 2020, 14th International Conference on Signal Processing and Communication Systems, (ICSPCS) December 14-16, 2020 – Virtual Conference : proceedings 2020
<https://doi.org/10.1109/ICSPCS50536.2020.9309999>

Adaptive Extended Kalman Filter position estimation based on Ultra-Wideband Active-Passive Ranging Protocol

Laadung, Taavi; Ulp, Sander; Fjodorov, Aleksei; Alam, Muhammad Mahtab; Le Moullec, Yannick IEEE Access 2023 / p. 92575-92588 <https://doi.org/10.1109/ACCESS.2023.3308696>

Adaptive LINE-P : an adaptive linear energy prediction model for wireless sensor network nodes

Ahmed, Faisal; Tamberg, Gert; Le Moullec, Yannick; Annus, Paul Sensors 2018 / art. 1105, 26 p. : ill
<https://doi.org/10.3390/s18041105> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

ADS-B in space : decoder implementation and first results from the GATOSS mission

Knudsen, Bjarke Gosvig; Jensen, Morten; Christiansen, Johan; Le Moullec, Yannick BEC 2014 : 2014 14th Biennial Baltic Electronics Conference : proceedings of the 14th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 6-8, 2014, Tallinn, Estonia 2014 / p. 57-60 : ill

Algorithms for learning and adaptation over networks - distributed leader selection = Õppimisalgoritmid hajutatud võrkude tarbeks - juhtsõlme hajus valimine

Ulp, Sander 2019 <https://digi.lib.ttu.ee/i/?11635>

Analytical evaluation of indoor energy harvesting technologies for WSNs with FYPsim framework

Ahmed, Faisal; Le Moullec, Yannick; Annus, Paul; Mustufa, Y. S. Ashad 2016 International Conference on Industrial Informatics and Computer Systems (CIICS) : March 13-15, 2016, Dubai, UAE 2016 / [6] p. : ill <https://doi.org/10.1109/ICCSII.2016.7462423>

Applying RIS-based communication for collaborative computing in a swarm of drones

Rahbari, Dadmehr; Alam, Muhammad Mahtab; Le Moullec, Yannick; Jenihhin, Maksim IEEE Access 2023 / p. 70093–70109
<https://doi.org/10.1109/ACCESS.2023.3293737>

Approaches for improving VoIP QoS in WMNs

Meeran, Mohammad Tariq; Annus, Paul; Le Moullec, Yannick 2017 International Conference on Electrical Engineering and Computer Science (ICECOS 2017) : Palembang, Indonesia, 22-23 August 2017 2017 / p. 22-27 : ill
<https://doi.org/10.1109/ICECOS.2017.8167138>

Architectural design space exploration of an FPGA-based compressed sampling engine : application to wireless heart-rate monitoring

El-Sayed, Mohammad; Koch, Peter; Le Moullec, Yannick 2015 Nordic Circuits and Systems Conference (NORCAS) : NORCHIP & International Symposium on System-on-Chip (SoC) : 1st IEEE NORCAS Conference : 26-28 October 2015, Oslo, Norway 2015 / [5] p. : ill <http://dx.doi.org/10.1109/NORCHIP.2015.7364369>

Automatic detection of multisize pulmonary nodules in CT images : large-scale validation of the false-positive reduction step

Gupta, Anindya; Saar, Tõnis; Märten, Olev; Le Moullec, Yannick Medical physics 2018 / p. 1135-1149 : ill
<https://doi.org/10.1002/mp.12746> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Autonomous wireless sensor networks : implementation of transient computing and energy prediction for improved node performance and link quality

Ahmed, Faisal; Kervadec, Corentin; Le Moullec, Yannick; Tamberg, Gert; Annus, Paul The Computer Journal 2019 / p. 820 - 837
<https://doi.org/10.1093/comjnl/bxy101> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A bio-impedance signal simulator (BISS) for research and training purposes

Muhammad, Yar; Le Moullec, Yannick; Annus, Paul; Krivošei, Andrei 2015 26th Irish Signals and Systems Conference (ISSC) : Institute of Technology Carlow, Ireland, June 24-25, 2015 2015 / [4] p. : ill <https://doi.org/10.1109/ISSC.2015.7163746>

Body Area Networks. Smart IoT and Big Data for Intelligent Health : 15th EAI International Conference, BODYNETS 2020, Tallinn, Estonia, October 21, 2020 : proceedings

2020 <https://doi.org/10.1007/978-3-030-64991-3>

CapsNet on embedded devices in a data scarce scenario

Ezechukwu, Dismas Ndubuis; Le Moullec, Yannick 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 6 l.

<https://doi.org/10.1109/BEC56180.2022.9935600>

Cell coverage analysis of a low altitude aerial base station in wind perturbations

Sharma, Navuday; Sharma, Vishal; Magarini, Maurizio; Pervaiz, Haris; **Alam, Muhammad Mahtab; Le Moullec, Yannick** 2019 IEEE Globecom Workshops (GC Wkshps) : Proceedings 2019 / 6 p <https://doi.org/10.1109/GCWkshps45667.2019.9024665>

Classification and denoising of objects in TEM and CT images using deep neural networks = Objektide klassifitseerimine ja müratustamine TEM ja KT kujutistelt sügavate närvivõrkude abil

Gupta, Anindya 2018 <https://digi.lib.ttu.ee/i/?9954>

Communication challenges in on-body and body-to-body wearable wireless networks - a connectivity perspective

Ben Arbia, Dhafer; **Alam, Muhammad Mahtab; Le Moullec, Yannick;** Hamida, Elyes Ben Technologies 2017 / art. 43, p.1-18 : ill <http://dx.doi.org/10.3390/technologies5030043>

A configurable radio jamming prototype for physical layer attacks against malicious unmanned aerial vehicles

Caforio, Giulio; Scazzoli, Davide; Reggiani, Luca; Magarini, Maurizio; **Le Moullec, Yannick; Alam, Muhammad Mahtab** 2020 17th Biennial Baltic electronics conference, Tallinn, Estonia, October 6-8, 2020 : proceedings 2020 / 6 p. : ill <https://doi.org/10.1109/BEC49624.2020.9277253>

Cooperative interference avoidance scheduler for radio resource management in NB-IoT systems

Mwakwata, Collins Burton; Alam, Muhammad Mahtab; Le Moullec, Yannick; Malik, Hassan; Päränd, Sven EuCNC 2020: 2020 European Conference on Networks and Communications (EuCNC), Dubrovnik, Croatia, Croatia, 15-18 June 2020 : proceedings 2020 / p. 154-159 <https://doi.org/10.1109/EuCNC48522.2020.9200967>

Cooperative scheduler to enhance massive connectivity in 5G and beyond by minimizing interference in OMA and NOMA

Mwakwata, Collins Burton; Elgarhy, Osama Mohamed Mostafa; Alam, Muhammad Mahtab; Le Moullec, Yannick; Päränd, Sven; Trichias, Konstantinos; Ramantas, Kostas IEEE Systems Journal 2022 / p. 5044-5055 <https://doi.org/10.1109/JSYST.2021.3114338> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

DASIP 2016 : [special issue]

2017 <https://www.sciencedirect.com/journal/journal-of-systems-architecture/special-issue/10N2RZ46VP0>

Decentralized distributed data structure for bioanalytical laboratory setups

Ashraf, Kanwal; Le Moullec, Yannick; Pardy, Tamas 8th ACM Celebration of Women in Computing : womENCourage 2021, 22-24 September, 2021, Czech Republic 2021 / 2 p. : ill https://womencourage.acm.org/2021/wp-content/uploads/2021/07/59_extendedabstract.pdf

Decentralized distributed data structure for bioanalytical laboratory setups : [poster]

Ashraf, Kanwal; Le Moullec, Yannick; Pardy, Tamas 2021 / 1 p. : ill https://womencourage.acm.org/2021/wp-content/uploads/2021/07/59_poster.pdf

A deep learning approach for LoS/NLoS identification via PRACH in UAV-assisted public safety networks

Scazzoli, Davide; Magarini, Maurizio; Reggiani, Luca; **Le Moullec, Yannick; Alam, Muhammad Mahtab** 2020 IEEE 31st Annual International Symposium on Personal, Indoor and Mobile Radio Communications, August 31 - September 3, 2020 in London, United Kingdom : proceedings 2020 / 6 p <https://doi.org/10.1109/PIMRC48278.2020.9217127>

Deep-learning based blood cells classification and initial edge device implementation

Islam, Md. Raisul; **Le Moullec, Yannick; Afrin, Fariha;** Ahmed, Faisal 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 6 p. : ill <https://doi.org/10.1109/BEC56180.2022.9935610>

Design of Cyber Bio-analytical Physical Systems : formal methods, architectures, and multi-system interaction strategies

Ashraf, Kanwal; Le Moullec, Yannick; Pardy, Tamas; Rang, Toomas Microprocessors and microsystems 2023 / art. 104780, 14 p. : ill <https://doi.org/10.1016/j.micpro.2023.104780>

Detection of pulmonary micronodules in computed tomography images and false positive reduction using 3D convolutional neural networks

Gupta, Anindya; Saar, Tönis; **Märtens, Olev; Le Moullec, Yannick;** Sintorn, Ida-Maria International Journal of Imaging Systems and Technology 2019 / p. 327-339 : ill <https://doi.org/10.1002/ima.22373> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of a bio-impedance signal simulator on the basis of the regression based model of the cardiac and respiratory impedance signals

Muhammad, Yar; Le Moullec, Yannick; Annus, Paul; Min, Mart 16th Nordic-Baltic Conference on Biomedical Engineering : 16. NBC & 10. MTD 2014 Joint Conferences, October 14-16, 2014, Gothenburg, Sweden 2015 / p. 92-95 : ill

Device-to-device discovery and localization assisted by UAVs in pervasive public safety networks

Masood, Ali; Sharma, Navuday; Alam, Muhammad Mahtab; Le Moullec, Yannick; Scazzoli, Davide; Magarini, Maurizio; Ahmad, Rizwan Proceedings of the ACM MobiHoc workshop on innovative aerial communication solutions for First Responders network in emergency scenarios : iFIRE '19, Catania, Italy, July 2-5, 2019 2019 / p. 6-11 <https://doi.org/10.1145/3331053.3335031>

Digital self-interference cancellation: algorithmic performance analysis and software defined radio based realization
Rani, Ritu; **Le Moullec, Yannick** 2020 17th Biennial Baltic electronics conference, Tallinn, Estonia, October 6-8, 2020 : proceedings 2020 / 6 p. : ill <https://doi.org/10.1109/BEC49624.2020.9277345>

Direct discovery-based cooperative device-to-device communication for emergency scenarios in 6G
Masood, Ali; Alam, Muhammad Mahtab; Le Moullec, Yannick 2022 Joint European Conference on Networks and Communications & 6G Summit (EuCNC/6G Summit) : proceedings 2022 / p. 297-302 : ill
<https://doi.org/10.1109/EuCNC/6GSummit54941.2022.9815706>

Distributed adaptive largest eigenvalue detection with SNR weighted observations [Online resource]
Ainomäe, Ahti; Trump, Tõnu; Le Moullec, Yannick BEC 2018 : 2018 16th Biennial Baltic Electronics Conference (BEC) : proceedings of the 16th Biennial Baltic Electronics Conference, October 8-10, 2018 2018 / 4 p. : ill
<https://doi.org/10.1109/BEC.2018.8600974>

Doktoriõpe on hea koostöö õppuri ja juhendaja vahel
Sarv, Mari Õõ Mente et Manu 2022 / lk. 18-19 : fot https://www.ester.ee/record=b1242496*est

DORM : narrowband IoT development platform and indoor deployment coverage analysis
Khan, Sikandar Muhammad Zulqarnain; Malik, Hassan; Sarmiento, Jeffrey Leonel Redondo; Alam, Muhammad Mahtab; Le Moullec, Yannick Procedia computer science 2019 / p. 1084-1091 : ill <https://doi.org/10.1016/j.procs.2019.04.154> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Dual-source Linear Energy Prediction (LINE-P) model in the context of WSNs
Ahmed, Faisal; Tamberg, Gert; Le Moullec, Yannick; Annus, Paul Sensors 2017 / art. 1666, p. 1-22 : ill
<http://dx.doi.org/10.3390/s17071666>

Dynamic radio frame configuration by exploiting uplink control channel for URLLC
Sharma, Navuday; Alam, Muhammad Mahtab; Le Moullec, Yannick; Malik, Hassan; Bennis, Mehdi; Päränd, Sven 2019 IEEE Wireless Communications and Networking Conference Workshop (WCNCW) 2019 / 6 p. : ill
<https://doi.org/10.1109/WCNCW.2019.8902898>

Dynamic slot allocation using non overlapping backoff algorithm in IEEE 802.15.6 WBAN
Saboor, Abdul; Ahmad, Rizwan; Ahmed, Waqas; Kiani, Adnan Khalid; Alam, Muhammad Mahtab; Kuusik, Alar; Le Moullec, Yannick IEEE sensors journal 2020 / p. 10862-10875 : ill <https://doi.org/10.1109/JSEN.2020.2993795> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Edge-to-Fog collaborative computing in a swarm of drones
Rahbari, Dadmehr; Alam, Muhammad Mahtab; Le Moullec, Yannick; Jenihhin, Maksim Advances in Model and Data Engineering in the Digitalization Era : MEDI 2021 International Workshops: DETECT, SIAS, CSMML, BIOC, HEDA, Tallinn, Estonia, June 21–23, 2021 : proceedings 2021 / p. 78–87 https://doi.org/10.1007/978-3-030-87657-9_6 [Conference Proceedings at Scopus](#) [Article at Scopus](#)

An empirical modeling for the baseline energy consumption of an NB-IoT radio transceiver
Khan, Sikandar Muhammad Zulqarnain; Alam, Muhammad Mahtab; Le Moullec, Yannick; Kuusik, Alar; Päränd, Sven; Verikoukis, Christos IEEE Internet of Things Journal 2021 / p. 14756-14772 : ill <https://doi.org/10.1109/JIOT.2021.3072769> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Energy consumption evaluation of OMA vs. NOMA for sustainable scheduling in 6G O-RAN
Latif, Aamir; Alam, Muhammad Mahtab; Elgarhy, Osama Mohamed Mostafa; Le Moullec, Yannick International Wireless Communications and Mobile Computing Conference, IWCMC 2024

Energy harvesting technologies - potential application to wearable health-monitoring
Ahmed, Faisal; Le Moullec, Yannick; Annus, Paul The 10th International Conference on Bioelectromagnetism : proceedings 2015 / [4] p. : ill

Energy-efficient distributed leader selection algorithm for energy-constrained wireless sensor networks
Ulp, Sander; Le Moullec, Yannick; Alam, Muhammad Mahtab IEEE Access 2019 / p. 4410-4421 : ill
<https://doi.org/10.1109/ACCESS.2018.2888551> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Evaluation of low power wide area network technologies for smart urban drainage systems
Malik, Hassan; Kändler, Nils; Alam, Muhammad Mahtab; Annus, Ivar; Le Moullec, Yannick; Kuusik, Alar 2018 IEEE : International Conference on Environmental Engineering, March 12-14, 2018 Milan Italy : conference proceedings 2018 / 5 p. : ill
<https://doi.org/10.1109/EE1.2018.8385262>

Evaluation of VoIP QoS performance in wireless mesh networks

Meeran, Mohammad Tariq; Annus, Paul; Alam, Muhammad Mahtab; Le Moullec, Yannick Information 2017 / art. 88, p. 1-26 : ill <https://doi.org/10.3390/info8030088>

Experimental characterization of ProSe direct discovery for emergency scenarios

Masood, Ali; Le Moullec, Yannick; Alam, Muhammad Mahtab 2021 IEEE 7th World Forum on Internet of Things (WF-IoT), 14 June 2021 - 31 July 2021, New Orleans, LA, USA : proceedings 2021 / p. 891-896 <https://doi.org/10.1109/WF-IoT51360.2021.9595305>

Fast and fair computation offloading management in a swarm of drones using a rating-based federated learning approach

Rahbari, Dadmehr; Alam, Muhammad Mahtab; Le Moullec, Yannick; Jenihhin, Maksim IEEE Access 2021 / p. 113832-113849 <https://doi.org/10.1109/ACCESS.2021.3104117> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A first experimental study of fixed-point approximate arithmetic in recursive lattice filters

Koch, Peter; Le Moullec, Yannick 2023 IEEE Nordic Circuits and Systems Conference (NorCAS) 2023 / 6 p <https://doi.org/10.1109/NorCAS58970.2023.10305450>

Frequency and power allocation schemes for heterogeneous networks including femto cells

Ahmed, Tauseef; Le Moullec, Yannick 2015 23rd Telecommunications Forum (TELFOR) : Belgrade, Serbia, November, 24-26, 2015 : proceedings of papers = XXIII Телекомуникациони Форум ТЕЛФОР 2015 : зборник радова 2015 / p. 277-280 : ill <http://dx.doi.org/10.1109/TELFOR.2015.7377464>

FYPsim : an estimation framework for energy harvesting and energy prediction for WSNs

Ahmed, Faisal; Le Moullec, Yannick; Annus, Paul 2016 IEEE International Conference on Consumer Electronics-Taiwan (ICCE-TW) : Nantou County, Taiwan, 27-29 May 2016 2016 / p. 291-292 : ill <https://doi.org/10.1109/ICCE-TW.2016.7521033>

FYPsim : evaluation tool for solar-based energy harvesting for WSNs

Ahmed, Faisal; Le Moullec, Yannick; Annus, Paul International journal of bioelectromagnetism 2015 / p. 75-86 : ill

Intelligent resource management in mobile edge computing for IIoT applications

2020 <https://www.sciencedirect.com/journal/computer-communications/special-issue/10TQNXCF0J>

Inter O-DUs coordination for scheduling of massive users in O-RAN

Latif, Aamir; Alam, Muhammad Mahtab; Le Moullec, Yannick 2023 Joint European Conference on Networks and Communications & 6G Summit (EuCNC/6G Summit) 2023 / p. 6 <https://doi.org/10.1109/EuCNC/6GSummit58263.2023.10188234>

Inter-cell interference reduction scheme for uplink transmission in NB-IoT Systems

Mwakwata, Collins Burton; Elgarhy, Osama Mohamed Mostafa; Le Moullec, Yannick; Alam, Muhammad Mahtab; Päränd, Sven; Annus, Ivar IWCMC 2021 Wireless Sensors & IoT: 2021 International Wireless Communications and Mobile Computing (IWCMC), Harbin, China, June 28 - July 2, 2021 2021 / p. 400-405 <https://doi.org/10.1109/IWCMC51323.2021.9498970>

Interference-aware radio resource allocation for 5G ultra-reliable low-latency communication

Malik, Hassan; Alam, Muhammad Mahtab; Le Moullec, Yannick; Ni, Qiang 2018 IEEE Globecom Workshops (GC Wkshps) : proceedings 2018 / p. <https://doi.org/10.1109/GLOCOMW.2018.8644301>

Jamming of UAV remote control systems using software defined radio

Pärilä, Karel; Alam, Muhammad Mahtab; Le Moullec, Yannick 2018 International Conference on Military Communications and Information Systems (ICMCIS), 22-23 May 2018 : proceedings 2018 / p. 173-178 <http://dx.doi.org/10.1109/ICMCIS.2018.8398711>

Joint optimization via deep reinforcement learning in wireless networked controlled systems

Ashraf, Kanwal; Le Moullec, Yannick; Pardy, Tamas; Rang, Toomas IEEE Access 2022 / p. 67152-67167 <https://doi.org/10.1109/ACCESS.2022.3185244> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Latest research trends in gait analysis using wearable sensors and machine learning: A systematic review

Saboor, Abdul; Kask, Triin; Kuusik, Alar; Alam, Muhammad Mahtab; Le Moullec, Yannick IEEE Access 2020 / art. 3022818, p. 167830-167864 <https://doi.org/10.1109/ACCESS.2020.3022818> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

LUCIA Compendium : Sustainable and Smart Urban Lighting

Bunte, Heike; Jacob, Thomas; Haapanen, Topi; Enevold, Sif; Le Moullec, Yannick 2020 <https://digikogu.taltech.ee/et/Item/f4d273f6-e506-4b7f-b658-13bc225b6960> https://www.ester.ee/record=b5375097*est

LUCIA Compendium. Volume 2 : deployment of sustainable and smart urban lighting

Korötko, Tarmo; Bunte, Heike; Tallo, Eva; Šponberga, Ieva; Potrykus, Yolanda; Nurulin, Yury; Axelsen, Teddy Sibbern 2022 <https://lucia-project.eu/wp-content/uploads/2022/04/LUCIA-Compendium-vol2.pdf> https://www.ester.ee/record=b5495404*est

Methods for increased sensitivity and scope in automatic segmentation and detection of lung nodules in CT images

Gupta, Anindya; Märtens, Olev; Le Moullec, Yannick; Saar, Tõnis The 15th IEEE International Symposium on Signal Processing and Information Technology ISSPIT 2015 : December 7-10, 2015, Abu Dhabi, UAE : proceedings 2015 / p. 370-375 : ill

Model-based system architecture for event-triggered wireless control of bio-analytical devices

Ashraf, Kanwal; Le Moullec, Yannick; Pardy, Tamas; Rang, Toomas 2021 24th Euromicro Conference on Digital System Design (DSD), 01-03 September 2021 2021 / p. 465–471 : ill <https://doi.org/10.1109/DSD53832.2021.00076>

Modeling and implementation of linear energy prediction for energy harvesting in intermittently powered wireless sensor nodes = Katkendliku toitega traadita sensorsõlmede energiakorje tulemuse lineaarne ennustus, modelleerimine ja rakendused

Ahmed, Faisal 2018 <https://digi.lib.ttu.ee/i/?9955>

A modular 6LoWPAN-based wireless sensor body area network for health-monitoring applications

Le Moullec, Yannick; Lecat, Yoann; Annus, Paul; Land, Raul; Kuusik, Alar; Reidla, Marko; Hollstein, Thomas; Reinsalu, Uljana; Tammemäe, Kalle; Ruberg, Priit APSIPA ASC 2014 : Asia-Pacific Signal and Information Processing Association Annual Summit and Conference 2014 : December 9-12, 2014, Siem Reap, city of Angkor Wat, Cambodia 2014 / [4] p. : ill

A multi-armed bandit solver method for adaptive power allocation in device-to-device communication

Khan, Muhidul Islam; Alam, Muhammad Mahtab; Le Moullec, Yannick Procedia computer science 2018 / p. 1069-1076

<https://doi.org/10.1016/j.procs.2018.04.155> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Narrowband internet of things (NB-IoT) : from physical (PHY) and media access control (MAC) layers perspectives

Mwakwata, Collins Burton; Malik, Hassan; Alam, Muhammad Mahtab; Le Moullec, Yannick; Päränd, Sven; Mumtaz, Shahid

Sensors 2019 / art. 2613, 34 p.: ill <https://doi.org/10.3390/s19112613> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Narrowband Internet of Things (NB-IoT) : from physical (PHY) and Media Access Control (MAC) layers perspectives : [an article in collection]

Mwakwata, Collins Burton; Malik, Hassan; Alam, Muhammad Mahtab; Le Moullec, Yannick; Päränd, Sven; Mumtaz, Shahid

Internet of things and sensors networks in 5G wireless communications 2020 / p. 39-72 : ill <https://doi.org/10.3390/books978-3-03928-149-7> <https://doi.org/10.3390/s19112613>

Narrowband internet of things (NB-IoT) : from radio network coverage to device energy consumption modeling and energy-efficient application = Kitsaribaline asjade internet (NB-IoT) : raadiovõrgu katvusest seadme energiatarbe modelleerimise ja energiasäästliku rakenduseni

Khan, Sikandar Muhammad Zulqarnain 2022 https://www.ester.ee/record=b5491661*est <https://digikogu.taltech.ee/et/Item/8244be00-273d-4d45-a34a-27f0f4350d32>

Narrowband internet of things (NB-IoT) for industrial automation

Malik, Hassan; Alam, Muhammad Mahtab; Kuusik, Alar; Le Moullec, Yannick; Päränd, Sven Wireless automation as an enabler

for the next industrial revolution 2020 / p. 65-87 <https://doi.org/10.1002/9781119552635.ch4>

NarrowBand-IoT performance analysis for healthcare applications

Malik, Hassan; Alam, Muhammad Mahtab; Le Moullec, Yannick; Kuusik, Alar Procedia computer science 2018 / p. 1077–1083

<https://doi.org/10.1016/j.procs.2018.04.156> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

An NB-IoT based edge-of-things framework for energy-efficient image transfer

Khan, Sikandar Muhammad Zulqarnain; Le Moullec, Yannick; Alam, Muhammad Mahtab Sensors 2021 / art. 5929, 21 p. : ill

<https://doi.org/10.3390/s21175929> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

NB-IoT based visual smart waste management system

Zulqarnain Khan, Sikandar; Hein, Haigo; Alam, Muhammad Mahtab; Le Moullec, Yannick; Päränd, Sven 2022 18th Biennial

Baltic Electronics Conference (BEC) 2022 / 6 p. : ill <https://doi.org/10.1109/BEC56180.2022.9935601>

NB-IoT network field trial : indoor, outdoor and underground coverage campaign

Malik, Hassan; Khan, Sikandar Muhammad Zulqarnain; Sarmiento, Jeffrey Leonel Redondo; Kuusik, Alar; Alam,

Muhammad Mahtab; Le Moullec, Yannick; Päränd, Sven IWCMC 2019 : 15th International Wireless Communications & Mobile

Computing Conference (IWCMC), June 24–28, 2019, Tangier, Morocco 2019 / p. 537-542 : ill

<https://doi.org/10.1109/IWCMC.2019.8766568>

Novel active-passive two-way ranging protocols for UWB positioning systems

Laadung, Taavi; Ulp, Sander; Alam, Muhammad Mahtab; Le Moullec, Yannick IEEE sensors journal 2022 / p. 5223-5237 : ill

<https://doi.org/10.1109/JSEN.2021.3125570> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Operating wireless sensor nodes without energy storage : experimental results with transient computing

Ahmed, Faisal; Ahmed, Tauseef; Muhammad, Yar; Le Moullec, Yannick; Annus, Paul Electronics 2016 / art. 89, p. 1-14 : ill <http://dx.doi.org/10.3390/electronics5040089>

Optical detection methods for high-throughput fluorescent droplet microflow cytometry

Pärnamets, Kaiser; Pardy, Tamas; Koel, Ants; Rang, Toomas; Scheler, Ott; Le Moullec, Yannick; Afrin, Fariha Micromachines 2021 / art. 345, 20 p. : ill <https://doi.org/10.3390/mi12030345> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimization of channel allocation in wireless body area networks by means of reinforcement learning

Ahmed, Tauseef; Ahmed, Faisal; Le Moullec, Yannick APWiMob : IEEE Asia Pacific Conference on Wireless and Mobile 2016 : conference proceedings : 13-15 September 2016, Grand Royal Panghegar Hotel, Bandung, Indonesia 2016 / p. 120-123 : ill <https://doi.org/10.1109/APWiMob.2016.7811445>

Parameter estimation by sparse reconstruction with wideband dictionaries = Signaali parameetrite hindamine kasutades hajusat taastamist laiaribaliste sõnastikega

Butsenko, Maksim 2018 <https://digi.lib.ttu.ee/i/?11199>

A parametric framework for modelling of bioelectrical signals = Parameetiline raamistik bioelektriliste signaalide modelleerimiseks

Muhammad, Yar 2015 http://www.estee.ee/record=b4473232*est

A parametric framework for the development of bioelectrical applications : application to a bio-impedance signal simulator

Muhammad, Yar; Annus, Paul; Le Moullec, Yannick; Rang, Toomas Proceedings of the Estonian Academy of Sciences 2016 / p. 345-357 : ill <https://doi.org/10.3176/proc.2016.4.03>

Performance evaluation of UWB active-passive two-way ranging distance estimation matrix weighting methods

Laadung, Taavi; Ulp, Sander; Alam, Muhammad Mahtab; Le Moullec, Yannick WiP Proceedings of the Twelfth International Conference on Indoor Positioning and Indoor Navigation 2022 / p. paper29 <https://eur-ws.org/Vol-3248/paper29.pdf> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Power optimization in a non-coordinated secondary infrastructure in a heterogeneous cognitive radio network

Ahmed, Tauseef; Le Moullec, Yannick Elektronika ir elektrotehnika = Electronics and electrical engineering 2015 / p. 79-83 : ill

Power-efficient frequency allocation algorithms for self-organized networks

Ahmed, Tauseef; Le Moullec, Yannick 2015 Advances in Wireless and Optical Communications RTUWO : 5-6 November 2015, Riga, Latvia : proceedings 2015 / p. 142-145 : ill <http://dx.doi.org/10.1109/RTUWO.2015.7365738>

Predictive machine learning analysis for reliable D2D discovery in 6G critical communications

Masood, Ali; Alam, Muhammad Mahtab; Le Moullec, Yannick 2023 Eighth International Conference on Fog and Mobile Edge Computing (FMEC) 2023 / p. 58-63 <https://doi.org/10.1109/FMEC59375.2023.10306113>

Preface

Alam, Muhammad Mahtab; Hämäläinen, Matti; Mucchi, Lorenzo; Niazi, Imran Khan; Le Moullec, Yannick Body Area Networks. Smart IoT and Big Data for Intelligent Health : 15th EAI International Conference, BODYNETS 2020, Tallinn, Estonia, October 21, 2020 : proceedings 2020 / p. V <https://link.springer.com/content/pdf/bfm:978-3-030-64991-3/1?pdf=chapter%20toc> <https://doi.org/10.1007/978-3-030-64991-3> [Conference proceeding](#) [Article at Scopus](#)

A preliminary computer-aided technique for CT based lung segmentation

Gupta, Anindya; Märten, Olev; Le Moullec, Yannick Proceedings of the 8th Annual Conference of the Estonian National Doctoral School in Information and Communication Technologies : December 5-6, 2014, Rakvere 2014 / p. 43-46 : ill

A primer on public safety communication in the context of terror attacks: the NATO SPS "COUNTER-TERROR" project

Alam, Muhammad Mahtab; Le Moullec, Yannick; Ahmad, Rizwan; Magarini, Maurizio; Reggiani, Luca Advanced Technologies for Security Applications : Proceedings of the NATO Science for Peace and Security 'Cluster Workshop on Advanced Technologies', 17-18 September 2019, Leuven, Belgium 2020 / p. 19-34 https://doi.org/10.1007/978-94-024-2021-0_3 [Article collection metrics at Scopus](#) [Article at Scopus](#)

ProSe direct discovery : experimental characterization and context-aware heuristic approach to extend public safety networks lifetime

Masood, Ali; Alam, Muhammad Mahtab; Le Moullec, Yannick; Reggiani, Luca; Scazzoli, Davide; Magarini, Maurizio; Ahmad, Rizwan IEEE Access 2021 / p. 130055-130071 <https://doi.org/10.1109/ACCESS.2021.3112751> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Prototyping of a machine learning based auxiliary neurostimulation system

Grigorjev, Nikolai; Le Moullec, Yannick; Kuusik, Alar 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 6 I.
<https://doi.org/10.1109/BEC56180.2022.9935607>

Q-Learning based joint energy-spectral efficiency optimization in multi-hop device-to-device communication

Khan, Muhidul Islam; Reggiani, Luca; Alam, Muhammad Mahtab; Le Moullec, Yannick; Sharma, Navuday; Yaacoub, Elias; Magarini, Maurizio Sensors 2020 / art. 6692, 23 p.: ill <https://doi.org/10.3390/s20226692> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A QoS optimization approach in cognitive body area networks for healthcare applications

Ahmed, Tauseef; Le Moullec, Yannick Sensors 2017 / art. 780, p. 1-23 : ill <http://dx.doi.org/10.3390/s17040780>

Radio resource management scheme in NB-IoT systems

Malik, Hassan; Pervaiz, Haris; Alam, Muhammad Mahtab; Le Moullec, Yannick; Kuusik, Alar; Imran, Muhammad Ali IEEE Access 2018 / p. 15051-15064 : ill <https://doi.org/10.1109/ACCESS.2018.2812299> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Radio spectrum and power optimization cognitive techniques for wireless body area networks = Raadiospektri ja võimsuse optimeerimise kognitiivsed tehnikad traadita kehavõrkudele

Ahmed, Tauseef 2017 <https://digi.lib.ttu.ee/i/?7677>

Reward function evaluation in a reinforcement learning approach for energy management [Online resource]

Rioual, Yohann; Le Moullec, Yannick; Laurent, Johann; Khan, Muhidul Islam; Diguët, Jean-Philippe BEC 2018 : 2018 16th Biennial Baltic Electronics Conference (BEC) : proceedings of the 16th Biennial Baltic Electronics Conference, October 8-10, 2018 2019 / 4 p <https://doi.org/10.1109/BEC.2018.8600992>

Scheduling in radio resource management for massive machine-type communications = Raadioressursside planeerimine massiivse masin-masin tüüpi kommunikatsiooni korral

Mwakwata, Collins Burton 2022 <https://doi.org/10.23658/taltech.32/2022> <https://digikogu.taltech.ee/et/Item/e62dd1a5-5791-487b-b5f6-0d983f37a7d5> https://www.eester.ee/record=b5502362*est

Smart, wireless modular communication platform

Ruberg, Priit; Hollstein, Thomas; Reinsalu, Uljana; Tammemäe, Kalle; Le Moullec, Yannick; Kuusik, Alar; Reidla, Marko; Annus, Paul Proceedings of the 8th Annual Conference of the Estonian National Doctoral School in Information and Communication Technologies : December 5-6, 2014, Rakvere 2014 / p. 111-112 : ill

Sparse reconstruction method for separating cardiac and respiratory components from electrical bioimpedance measurements

Butsenko, Maksim; Märten, Olev; Krivošei, Andrei; Le Moullec, Yannick Elektronika ir elektrotehnika = Electronics and electrical engineering 2018 / p. 57-61 : ill <https://doi.org/10.5755/j01.eie.24.5.21844> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Special issue "Advanced hardware implementations for IoT systems and applications"

2022 https://www.mdpi.com/journal/electronics/special_issues/Hardware_IoT

A survey on open-access reference image database for lung cancer

Gupta, Anindya; Märten, Olev; Le Moullec, Yannick Proceedings of the 8th Annual Conference of the Estonian National Doctoral School in Information and Communication Technologies : December 5-6, 2014, Rakvere 2014 / p. 47-50 : ill

A survey on the roles of communication technologies in IoT-based personalized healthcare applications

Alam, Muhammad Mahtab; Malik, Hassan; Khan, Muhidul Islam; Pardy, Tamas; Kuusik, Alar; Le Moullec, Yannick IEEE Access 2018 / p. 36611-36631 : ill <https://doi.org/10.1109/ACCESS.2018.2853148> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Surveying pervasive public safety communication technologies in the context of terrorist attacks

Masood, Ali; Scazzoli, Davide; Sharma, Navuday; Le Moullec, Yannick; Ahmad, Rizwan; Reggiani, Luca; Magarini, Maurizio; Alam, Muhammad Mahtab Physical communication 2020 / art. 101109, <https://doi.org/10.1016/j.phycom.2020.101109> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sustainable scheduling for ultra massive machine type communication using NOMA in 6G O-RAN

Latif, Aamir; Alam, Muhammad Mahtab; Elgarhy, Osama Mohamed Mostafa; Le Moullec, Yannick Digital Proceedings of the European Conference on Networks and Communications & 6G Summit 2024 (EuCNC 2024) 2024

TalTechi professor: elektroonika- ja IKT-tööstus tõukavad tagant digi- ja rohepööret

Le Moullec, Yannick toostusuudised.ee 2023 [TalTechi professor: elektroonika- ja IKT-tööstus tõukavad tagant digi- ja rohepööret](#)

The current state of voice over Internet protocol in wireless mesh networks

Meeran, Mohammad Tariq; **Annus, Paul; Le Moullec, Yannick** 2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI) : September 21-24, 2016, The LNM Institute of Information Technology (LNMIT), Jaipur, India 2016 / p. 2567-2575 : ill <https://doi.org/10.1109/ICACCI.2016.7732444>

Throughput-aware cooperative reinforcement learning for adaptive resource allocation in device-to-device communication

Khan, Muhidul Islam; Alam, Muhammad Mahtab; Le Moullec, Yannick; Yaacoub, Elias Future Internet 2017 / art. 72, p. 1-17 : ill <https://doi.org/10.3390/fi9040072>

A tool for lung nodules analysis based on segmentation and morphological operation

Gupta, Anindya; Märten, Olev; Le Moullec, Yannick; Saar, Tönis 2015 IEEE 9th International Symposium on Intelligent Signal Processing (WISP 2015) : Siena, Italy, 15-17 May 2015 : [proceedings] 2015 / p. 193-197 : ill <http://dx.doi.org/10.1109/WISP.2015.7139186>

Transient computing pour les réseaux de capteurs sans fil à récolte d'énergie : méthodes d'hibernation et aspects architecturaux

Le Moullec, Yannick; Diguët, Jean-Philippe Compas 2016 : Conférence d'informatique en Parallélisme, Architecture et Système 2016 : Lorient, France, 5-8 July 2016 2016 / [8] p

Unsupervised feature mapping via stacked sparse autoencoder for automated detection of large pulmonary nodules in CT images

Gupta, Anindya; Saar, Tönis; Märten, Olev; Le Moullec, Yannick Elektronika ir elektrotechnika = Electronics and electrical engineering 2017 / p. 59-63 : ill <http://dx.doi.org/10.5755/j01.eie.23.6.19695>