ISSUE 2

PAINLESS

An innovative training network (ITN) on

Energy-autonomous portable access points for infrastructure-less networks

NEWSLETTER DATE
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The long-term vision of the project is to kick-start an innovation eco-system for high-impact players among the infrastructure and service providers of ICT to develop and commercialize autonomous, power-independent, and self-organizing networks of BSs

PAINLESS 1ST SUMMER SCHOOL

PAINLESS 1st Summer school will take place in Cyprus in September 9-10, at Stelios Ioannou Library, UCY.

This is the first opportunity for our Early Stage Researchers to meet and gather.

The school will offer a wide range of different topics, such as:

- Fundamentals of Wireless Networks
- Antennas, Antenna Systems & Radio Propagation in Next Generation Communication Systems
- Radio Resource Management – from LTE towards 5G
- Fundamentals of UAV communications
- Wireless Backhaul-Fronthaul
- Wireless powered communications
- Writing, Reviewing and Presenting Scientific Work

PAINLESS 1st Summer school is open to the public.

For registration click here

For those who will be not able to attend, slides and proceeding will be available on the project website: http:painless-itn.com

Supervisory Board Members

PAINLESS project has given the opportunity to 15 Early Stage Researchers from all around the world to be enrolled in a creative training programme and be involved in innovative network of Universities and Industries.

Meet our ESRs!

Iman Valiulahi, UCL

Iman studied his BSc in Electrical Engineering with majors in Electronics at the University of Isfahan, Iran in 2015. He received his MSc in Telecommunication Engineering from Iran University of Science and Technology (IUST), Iran in 2018. He earned the 1st place in his master period. During his master project, he was engaged in a variety of signal processing problems such as super resolution, onebit compressed sensing, OFDM radar, and blind deconvolution.. In 2019, he joined University College London (UCL) in the UK, as an early-stage researcher for the European ITN Project PAINLESS, for which he will work on the topic of energy balancing and optimization framework for future energy-neutral HetNets.

Muhammad Haroon Tariq, AIT

Muhammad studied Electrical Engineering with majors in Telecommunication from COMSATS University Islamabad in 2011, where his final year project was on compact antenna design for LTE applications. He obtained his Masters from the NUST-Military College of signals in 2014, with his MS thesis devoted to the topic of microwave beamforming using frequency selective surfaces. From Nov. 2015 to Dec. 2016 he was a post graduate researcher at Frederick University in Nicosia, Cyprus, where he worked on dynamically reconfigurable RF devices and SWIPT systems. In May 2019, he joined Athens Information Technology (AIT) in Athens, Greece, as an early stage researcher (ESR #2) for the European ITN Project PAINLESS, for which he will work on the topic of adaptive mobile backhauling for portable access points.

Mahshid Javidsharifi, AAU

Mahshid received her MSc in Electrical Engineering from Lorestan University, Iran in 2015 with highest honors. Her master thesis was devoted to photovoltaic systems. She was awarded as the Recognized Researcher of Lorestan University, in 2014 and 2015. She has published five journal and a number of conference papers.. Her research interests include photovoltaic systems, PV systems modelling, integration of renewable energy sources and storage devices.In July 2019, she joined Aalborg University (AAU) in Aalborg, Denmark, as an early stage researcher (ESR #3) for the European ITN Project PAINLESS, for which she will work on the topic of photovoltaic energy supply for future energy neutral base stations.

Ilias Chrysovergis, UCY

Ilias studied Electrical & Computer Engineering at Aristotle University of Thessaloniki, where he specialized in Telecommunications and graduated with a five-year Diploma. He also holds an MSc degree on Communications and Signal Processing from Imperial College London. He excelled in most of his endeavours, winning awards in Porto, Hong Kong and the USA, participating in conferences and events in Greece and abroad and applied for a US patent with his team AMANDA, for the VR tool they developed, which was issued in 2018. In the PAINLESS project he will conduct research on how stochastic geometry and machine learning can be utilized in wireless powered backscattering communications.

Supervisory Board Members

Arzhang Shanbazi, CNRS

Arzhang studied his BSc in Electrical Engineering with majors in Telecommunication at Shiraz Azad University. He received his Masters from Shiraz university in 2018. He dedicated his Master thesis to Molecular Communications systems. In doing so, he introduced a novel approach for decoding and precoding, which resulted to one journal and two conference papers. His research interests include different areas of wireless communications and molecular communications. Since July 2019, he joined CNRS Paris and CentraleSupelec University (Paris-Saclay) as a Marie-Curie early stage researcher for the European ITN Project PAINLESS. His Ph.D. research work focuses on design and optimization of terrestrial and aerial ultra-dense small-cell base stations.

Mohammad aljraah, UMAN

Mohammad received his MSc. degree in Electrical Engineering/Wireless Communications from Jordan University of Science and Technology (JUST). Currently, he is a Lab instructor in the Department of Electrical and Computer Engineering, Khalifa University, United Arab Emirates. His area of research includes distributed decision fusion in wireless sensors networks, statistical signal processing, target tracking in RFID networks, and cooperative spectrum sensing in cognitive radio networks.

Francesco La Marca, NOK

Francesco is a Marie-Curie Early Stage Researcher at Nokia Bell Labs (Dublin, Ireland) and Pompeu Fabra University (Barcelona, Spain), where his Ph.D. research work focuses on the design of wireless networks for autonomous robots. Francesco received the Bachelor's degree in Biomedical Engineering (2015) and the Master's degree in Telecommunication Engineering (2019) from Politecnico of Milan University (Milan, Italy). He completed an internship with Samsung Electronics Italy in summer 2016. In April 2018, he was one of the 10 Italian Master students selected by Huawei Technologies for participating in the Seeds for the Future Program for a two weeks study trip to China in Huawei's global headquarters in Shenzhen, where he received a training on wireless and core network technologies.

Marco Virgili, LYRA

Marco received a MSc degree in renewable energy systems from Sapienza University of Rome in early 2019, natural continuation of the BSc in energy engineering completed in 2015 in the same study centre. He participated to the Erasmus+ programme twice: in Estonia (Tallinn Technical University) and in Spain (Carlos III University of Madrid), where he carried out his MSc thesis work. This work consisted in the implementation of a modelling code based on real parameters of an existing plant. In August 2019, after an experience in Oracle, he joined Lyra Electronics as a as a Marie-Curie early stage researcher for the European ITN Project PAINLESS. His Ph.D. project will focus on power management and energy storage for portable connection nodes.

Supervisory Board Members

Xiaoye Jing, UCL

Xiaoye studied Network Engineering from Harbin University of Science and Technology China since 2013, where her final year project was spectrum sensing technology for cognitive radio. She also earned the 1st place during undergraduate period. She studied for master degree in Harbin Institute of Technology China since 2017. Her research focus on resource allocation in satellite communication system. She has published two journal and one conference papers on these topics. In July 2019, she joined University College London (UCL) in UK, as an early stage researcher for the European ITN Project PAINLESS, for which she will work on the topic of UAV communication network.

Nithin Babu, AIT

Nithin received the B.Tech degree in Electronics and Communication Engineering from the Cochin University of Science and Technology, India, in 2013, and the M.Tech degree in Communication Systems Engineering from Indian Institute of Technology, Patna, India, in 2016. He did his Masters thesis at Vodafone Chair, TU Dresden, Germany, under a scholarship for the DAAD-IIT Master Sandwich program, on the topic of Hybrid MIMO systems. In May 2019, he joined Athens Information Technology (AIT) in Athens, Greece, as an early stage researcher (ESR #10) for the European ITN Project PAINLESS.

Eloise De Carvalho Rodrigues, NOK

Eloise received her Diploma of Computer Engineering from the Federal University of Ceara – UFC (Sobral, Brazil) in 2019, where she carried out applied research in wireless communication, especially in Radio Resource Allocation for 4G and 5G mobile communication networks. From Aug. 2017 to Sep. 2018, she held an academic mobility scholarship funded by the Brazilian government, in the frame of the BRAFITEC program, at Telecom SudParis – TSP (Evry, France), where she studied Emerging Services and Network. n June 2019, she joined Nokia Bell Labs (Dublin, Ireland) and Pompeu Fabra University – UPF (Barcelona, Spain) as a Marie-Curie Early Stage Researcher, and her Ph.D. research work focuses on wireless networks for autonomous robots.

Yuan Guo,UCY

Yuan got his bachelor's degree from Beijing Jiaotong University with major in Communications Engineering. He studied for MSc Wireless and Optical Communications at University College London, UK. His master final project is the optimization of the deployment of UAV-based wireless communications system. His main research interest is wireless communications system. In 2019, he joined University of Cyprus as an early stage researcher for the European ITN Project PAINLESS, for which he will work on the topic of millimetre wave (mmWave) communications in the context of wireless power transfer (WPT) and simultaneous wireless information and power transfer (SWIPT).

Supervisory Board Members

Abdelhamed Mohamed, CNRS

Mohamed Sayed received his BSc in Electronics and Communication Engineering, Excellent with honours, in 2011 at Menofia University. He received his Masters form Menofia University in 2016. His MS thesis was devoted to the topic of adaptive spectrum assignment for wireless networks. He also held the position of an assistant lecture at the Electronic and Electrical communications Department, Faculty of Electronic Engineering, Menofia University form Feb. 2012 to Jul. 2019. Since August 2019, he joined CNRS Paris and CentraleSupelec (Paris-Saclay University) at the Lab of Signals and Systems (L2S) as a Marie-Curie Early Stage Researcher (ESR #13) for the European INT Project PAINLESS.

Mahmoud Alaaldeen, UMAN

Mahmoud studied his BSc in Electrical Engineering with majors in Electronics and communications at Alexandria University in Egypt. He received his Master's degree from the American University in Cairo (AUC) in 2019. Since August 2019, he joined the university of Manchester as a Marie-Curie early stage researcher for the European ITN Project PAINLESS. His research work focuses on network optimization at the physical layer. It will explore and design low complexity lattice (LNC) and physical (PLNC) layer network coding techniques for the case of large scale distributed and energy-autonomous access-point formations with the objective to maximize the longevity of all the network nodes.

Igor Donevski, AAU

Igor is a Marie-Curie Early Stage Researcher and a PhD fellow at Aalborg University, Denmark.. In 2018, Igor received his MSc degree in Communications and Computer Networks from Politecnico di Torino, Italy. He was simultaneously enrolled in the honors program of Alta Scuola Politecnica and received a double degree with Politecnico di Milano. In 2016 he received his bachelor's degree in Telecommunications and Information Engineering from the University of Ss. Cyril and Methodius, N. Macedonia. In 2015, he completed a two-month visit at Northwestern University, U.S.A, under the supervision of Prof. Berry, where he worked on energy constrained communications.