



All things wireless ●



High quality consulting,
implementation and R&D services in
the field of modern wireless systems
(O-RAN, 5G, 6G, AI-RAN).

Who We Are?

Rimedo Labs specializes in providing the best quality and substantive consulting, implementation, and R&D services in the field of modern wireless systems.

We implement this through an individual and open approach to the Client, constantly improving the team operationally and substantively, updating knowledge, and a unique combination of science and business applications.

Rimedo Labs is a spin-off of the Poznan University of Technology, Poland from the Institute of Radiocommunications.



#Research
#Engineering
#Consulting

Why We?

Work experience for equipment manufacturers, operators, national and international projects

Experienced scientific and research staff

Knowledge sharing

Close cooperation with the Poznan University of Technology (University spin-off)

Experts in the field - most of the staff have a minimum doctorate degree specializing in radiocommunication



FIMEDO
LABS

Combining university and business knowledge

A non-standard and modern approach to the topic

Access to specialized measuring and research tools

Open RAN Services



Open RAN is a recent trend in the telecommunications ecosystem, aiming at hardware–software disaggregation, opening interfaces, and adding advanced automation utilizing the RAN Intelligent Controller (RIC).

Our services in the Open RAN area include:

- **xApp and rApp development** for the RAN Intelligent Controller;
- Pre-recorded and Live **technical courses** delivery;
- **Live webinars**;
- Dedicated **simulations** and **algorithm design**;
- **Whitepapers** and **technical articles** delivery.

Rimedo Labs is an **O-RAN Alliance**, **AI-RAN Alliance**, **Ericsson Intelligent Automation Platform** and **Nokia SMO Marketplace** member, and **Amdocs** and **Keysight** technology partner.



[Check our O-RAN resources](#)



Training Courses



TELECOM TRAINING

O-RAN System Training



2-DAY TECHNICAL COURSE, INSTRUCTOR LED

- Introduction
- O-RAN Overview
- O-RAN Architecture
- RAN Intelligent Controller (RIC)
- O-RAN Use Cases
- Traffic Steering Implementation
- Network Slicing in O-RAN

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TELECOM TRAINING

O-RAN Hands-on Training



1-DAY TECHNICAL COURSE, HYBRID (LIVE AND PRE-RECORDED)

- O-RAN Use Cases
- Traffic Steering Use Case Analysis and Simulations
- SD-RAN Environment Preparation Hands-on
- SD-RAN RIC Hands-On
- xApp Development Hands-On
- Live Q&A Session

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TELECOM TRAINING

5G and Open RAN



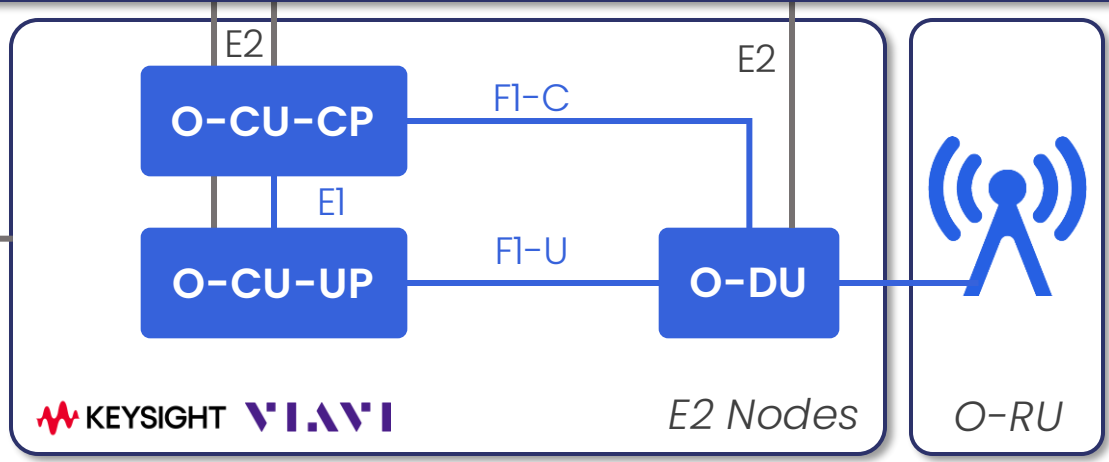
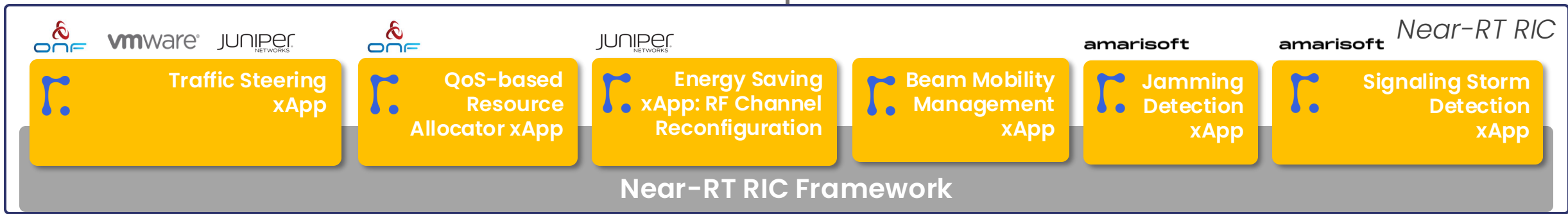
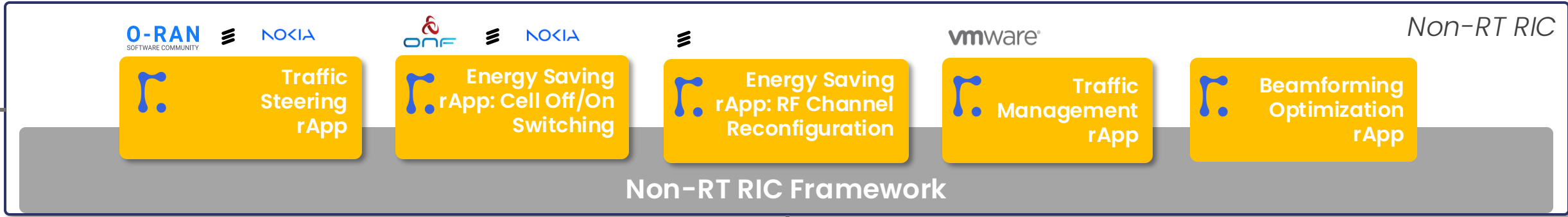
1-DAY TECHNICAL COURSE, INSTRUCTOR LED

- Introduction to 5G
- 5G Architecture
- 5G-NR and NG-RAN
- Introduction to Open RAN
- O-RAN Architecture
- RAN Intelligent Controller and Use Cases

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Rimedo Labs xApp/rApp Portfolio



O1

Rimedo Labs successfully took part in the **O-RAN Global PlugFest Fall 2022** in **i14y Lab** in Berlin.

The demonstrations included **Rimedo Labs Traffic Steering xApp** integration with **VMware's distributed RIC**, and **ONF's SD-RAN micronOS RIC**.



Rimedo Labs successfully took part in the **O-RAN Global PlugFest Spring 2023** in **i14y Lab** in Berlin.

The demonstrations included **Rimedo Labs Energy Saving rApp** control over **Traffic Steering xApp** integrated with **VMware's distributed RIC**.

The conducted tests included **AI policy control**, **energy-saving** and **load-balancing** features, and **coordination** between rApp and xApp.



Rimedo Labs successfully took part in the **O-RAN Global PlugFest Fall 2023** in **i14y Lab** in Berlin, supported by Deutsche Telekom and EANTC and i14y Lab consortium partners.

The demonstrations included:

- **Rimedo Labs' TS-xApp** integrated with **Juniper's Near RT-RIC** and **Keysight's RICTest** emulating E2 Nodes.
- **Rimedo Labs' TM-rApp** control over **TS-xApp** integrated with **VMware's distributed RIC** for advanced V2X scenarios.



Rimedo Labs successfully took part in the **O-RAN Global PlugFest Spring 2025** in the **i14y Lab** in Berlin, supported by **Deutsche Telekom** and **EANTC**, and the **i14y Lab** consortium partners.

Testing included validation of the cooperation between **Rimedo Labs COOS-xApp** and **TS-xApp** deployed in the **Juniper Near-RT RIC** and **Rimedo Labs COOS-rApp** deployed in **Juniper Non-RT RIC** on the energy efficiency optimization task under the network emulated by the **Keysight RICTest** using the data provided by the **Deutsche Telekom**.





Applied Research

The areas of our specialization cover wireless systems (like LTE, 5G, 6G, IoT, Wi-Fi), spectrum sharing and management, radio resource management, AI for wireless systems and private mobile networks. We offer our expertise as part of consortiums for EU and National funded projects (like Horizon 2020, Horizon Europe, NCBR, etc.). We can take part in those projects as leader, partner or subcontractor.



Consulting

Having extensive experience in the field of modern wireless systems we offer high quality consulting and advisory services delivered by our seasoned engineers and consultants. RIMEDO Labs Consulting include cover, among others the following items: radio planning and site surveys, technology forecasting, preparation of feasibility studies, systems architecting, wireless systems patent analysis, standards tracking, or expert/R&D team outsourcing.



Training

Our training services include online and on-site courses, conferences, meetups or workshops tailored to customer's needs and requirements. The topics, which are covered by us include: 4G, 5G and beyond, IoT, Wi-Fi, spectrum management, radio resource management, private networks, design, planning and troubleshooting of wireless systems, artificial intelligence for wireless systems. Our top-class instructors combine scientific and educational background with practical experience. We speak about the systems we design.



Technical Content Delivery

We provide technical contents for external training or consultancy companies delivered as training materials, technical documents, dedicated research papers, books, book chapters, slides, reports or raw materials for further processing. The material can be developed as insights onto a specific feature or aspect within wireless systems area, including topics like: LTE, 5G and beyond, Wi-Fi, IoT, shared spectrum, AI, etc. The educational content, can be also delivered in the form of virtual radio labs.

Our Values

Openness & Transparency: inside and outside of the company.

Reliability: the Team and the Customer can rely on us.

Strive for Excellence: in processes, technology, and serving the Customer.

Team First: motivated team – satisfied customer.

Knowledge Sharing: inside and outside of the company.

How We Work?



Requirements gathering and analysis

Discussion with the customer to obtain all required information and analysis of the requirements.



Offer preparation and service delivery

Providing alternatives or best single offer according to requirements. The customer is assigned a dedicated consultant to lead the assignment.



Feedback and post service support

We include offline Q&A in a certain period after the main service is delivered, to make sure that the customer is not left with unanswered questions.

Commercial Projects Our Team Members Took Part In



- **R&D Consulting:** Designing RRM / SON algorithms for LTE & 5G systems, architecture design for 5G RAN, and research on Radio Environment Maps (REM) for 5G for the Tier 1 telecom vendor.
- **5G Training:** Conducting and designing LTE/5G technical courses including preparation of the course concept, materials, scripts, exercises, and knowledge transfer for online and on-site courses.
- **5G Standardization in LAA:** Consulting on specific aspects of LTE and 5G standardization progress in Wi-Fi / LAA involving detailed research and training for the customer.
- **5G Standardization in V2X and RedCap:** Consulting on 3GPP Rel-17 RedCap, Rel-16 NR-V2X and C-V2X PHY layer to provide guidance for implementation based on 3GPP normative documents.
- **5G Consultations:** Answering investment institutions' questions like What 5G is? What are the key players? What are the main features? When will it be implemented? What are the challenges for 5G? What is O-RAN?
- **5G Patent Analysis:** Analysis of the significance of the 5G patents, preparation of claim charts, comparing various versions of the patent.
- **5G Simulation Implementation:** Software development services in the area of spectrum sharing, CBRS and alike including database implementation, conducting simulation campaigns and algorithm development.

Customers, Partners & Memberships

NOKIA

ERICSSON 

 KEYSIGHT

JUNIPER
NETWORKS

 O-RAN
ALLIANCE

 i14y LAB

vmware®

 LabLabee

 tietoevry

 Northeastern
University

zTOUCH

 ARTECH HOUSE
BOSTON | LONDON

 informatech

 Autotalks

 Wił
PIB
Wojskowy
Instytut Łączności
im. prof. Janusza Groszkowskiego
Państwowy Instytut Badawczy

 TIP
ACADEMY
TELECOM INFRA PROJECT

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STAY CONNECTED.

EUWENA

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 Continuing
Education Institute
Professional Learning

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Part of Accenture



GLOBAL
5G EVOLUTION

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What Customers Say About us



"Our initial contact with Rimedo Labs quickly expanded into several cooperation areas. It is an absolute pleasure to discuss in an open and transparent environment, where we focused on solutions adding actual value to both parts. Open-RAN training delivered by Marcin was one of those. Simply top class solution helping my Teams to grasp technology overview, as well as deep dive into engineering details. More yet to come, and I'm really looking forward to it!"

Michał Mariański, Head of Delivery Unit Baseband Poland at TietoEVRY

"Open RAN xApps are designed to enable innovation and make it possible for third-parties to introduce innovative functionality into traditionally closed RAN ecosystems. It is great to see Rimedo Labs at the leading edge of advancing this notion by introducing and open-sourcing a Traffic Steering xApp. This is a testament of the power of Open-RAN, and the power of community-based open collaboration. We are looking forward to further collaborate with Rimedo Labs Team."

Saurav Das, VP Engineering, Open Networking Foundation (ONF)



"I worked with Marcin and his group through CASe Analysis and we couldn't have been more impressed. Marcin communicates clearly, is timely with his work and responses, and is technically top notch. He and his team's knowledge and experience in 4G and 5G is unparalleled. It was a pleasure working with him his team and I look forward to the next project."

Charles Eldering, CEO, CASe Analysis

What Customers Say About us



"We had a pleasure to attend O-RAN System Training, organized by Rimedo Labs and delivered by Marcin. Despite the challenging topic, training upheld to highest standards with a lot of technical details and great discussions on multiple technical aspects. More than once, additional materials and references were delivered to the participants to broaden the coverage of the topics discussed. Plans of continue working with Rimedo are already on the way and we are looking forward to it!"

Petar Jandric, Business Unit Lead, Umlaut

"We've been collaborating with Rimedo Labs on communication networks standardization analysis. The firm's experts proved to be knowledgeable, thorough, and swift in their analysis. Since our engagement has been successful, we're planning on continuing our collaboration."

Amos Freund, VP R&D, Autotalks LTD



"Excellent System Training for anyone who wants to learn more about the nuts and bolts of Open RAN. Covers in depth the Open RAN architecture based on O-RAN Alliance specifications and 3GPP including E2 nodes, RAN Intelligent Controller, SMO, all interfaces, the importance of automation, detailed use case analysis and so much more. Comes with several bonuses incl. a 90min chapter on Open RAN specific network slicing. Thanks to Rimedo Labs for creating this course!"

Stefan Kreyssig, Network Solution Architect, AtoS

Founders



Marcin Dryjański, Ph.D.

Principal Consultant / CEO

Involved in 5G design since 2012.
Senior IEEE Member.



Prof. Hanna Bogucka

Head of Cooperation / Board Member

Professor of technical sciences.
Senior IEEE Member.



Adrian Kliks, Ph.D.

Chief Architect / Board Member

International projects manager.
Senior IEEE Member.

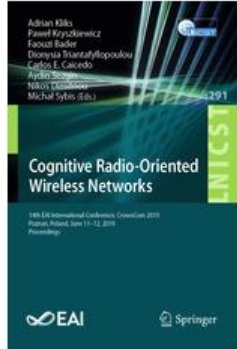


Paweł Kryszkiewicz, Ph.D.

Technical Director

Cognitive Radio systems expert.
Senior IEEE Member.

Our Books

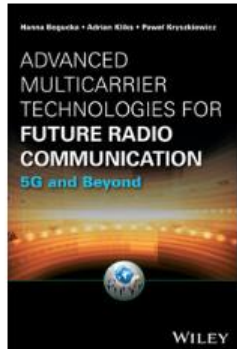


Adrian Kliks, Pawel Kryszkiewicz, Faouzi Bader, Dionysia Triantafyllopoulou, Carlos E. Caicedo, Aydin Sezgin, Nikos Dimitriou, Michal Sybis (Eds.)

Cognitive Radio-Oriented Wireless Networks

Springer 2019

ISBN 978-3-030-25748-4, 410 Pages

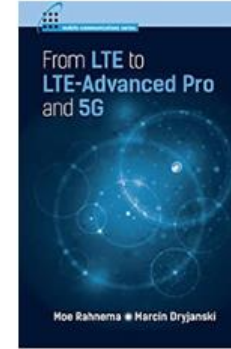


Hanna Bogucka, Adrian Kliks, Pawel Kryszkiewicz

Advanced Multicarrier Technologies for Future Radio Communication: 5G and Beyond

John Wiley & Sons, New York 2017

ISBN: 978-1-119-16889-8, 304 Pages



Moe Rahnema, **Marcin Dryjanski**

From LTE to LTE-Advanced Pro and 5G

Artech House, London 2017

ISBN: 978-1-630-81453-3, 372 Pages



Oliver Holland, **Hanna Bogucka**, Arturas Medeisis (Eds.)

Opportunistic Spectrum Sharing and White Space Access: The Practical Reality

John Wiley & Sons, New York 2015

ISBN: 978-1-119-05730-7, 736 Pages

Our Key Recent Publications

"An Open-RAN Testbed for Detecting and Mitigating Radio-Access Anomalies", H. Bogucka, M. Hoffmann, P. Kryszkiewicz, Ł. Kułacz, IEEE Communications Magazine, November 2025

"Experimental evaluation of xApp Conflict Mitigation Framework in O-RAN: Insights from Testbed deployment in OTIC", A. Sultana, C. Adamczyk, M. R. Chowdhury, A. Kliks, A. D. Silva, IEEE INFOCOM 2025, May 2025

"Security, Privacy, and Trust for Open Radio Access Networks in 6G", P. Porambage, M. Christopoulou, B. Han, M. A. Habibi, H. Bogucka, P. Kryszkiewicz, IEEE Open Journal of the Communications Society, December 2024

"Energy Efficiency in Open RAN: RF Channel Reconfiguration Use Case", M. Hoffmann, M. Dryjanski, IEEE Access, August 2024

"Policy-Based Traffic Steering and Load Balancing in O-RAN-Based Vehicle-to-Network Communications", P. Sroka, L. Kulacz, S. Janji, M. Dryjanski, A. Kliks, IEEE Transactions on Vehicular Technology, May 2024

"Open RAN xApps Design and Evaluation: Lessons Learnt and Identified Challenges", M. Hoffmann, S. Janji, A. Samorzewski, L. Kulacz, C. Adamczyk, M. Dryjanski, P. Kryszkiewicz, A. Kliks, H. Bogucka, IEEE JSAC, October 2023

"Conflict Mitigation Framework and Conflict Detection in O-RAN Near-RT RIC", C. Adamczyk, Adrian Kliks, IEEE Communications Magazine, August 2023

"Towards autonomous open radio access networks", A. Kliks, M. Dryjanski, V. Ram, L. Wong, P. Harvey, ITU Journal on Future and Evolving Technologies, June 2023

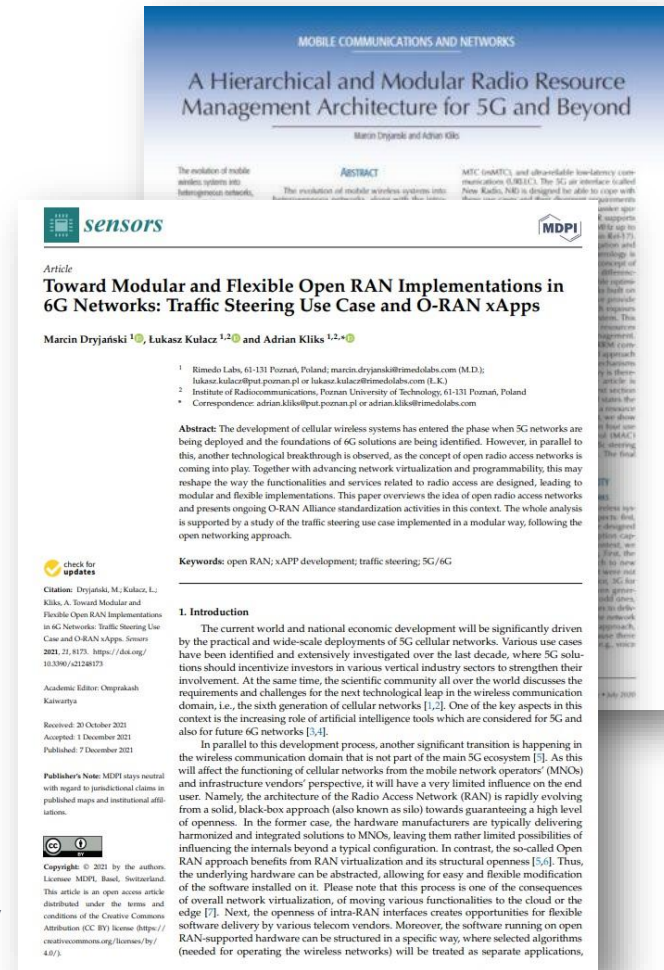
"Secure Federated Learning for Cognitive Radio Sensing", M. Wasilewska, H. Bogucka, H. Vincent Poor, IEEE Communications Magazine, March 2023

"Toward Modular and Flexible Open RAN Implementations in 6G Networks: Traffic Steering Use Case and O-RAN xApps", M. Dryjański, Ł. Kułacz, A. Kliks, MDPI Sensors, Dec. 2021

"Artificial Intelligence for Radio Communication Context-Awareness", M. Wasilewska; Adrian Kliks; Hanna Bogucka; et al., IEEE Access, Sept. 2021

"Reinforcement Learning for Energy-Efficient 5G Massive MIMO: Intelligent Antenna Switching," Marcin Hoffmann, Paweł Kryszkiewicz, IEEE Access, Sept. 2021

"Beyond 5G: Big Data Processing for Better Spectrum Utilization", Adrian Kliks, Lukasz Kulacz, Paweł Kryszkiewicz, Hanna Bogucka, Marcin Dryjanski; et al., IEEE Vehicular Technology Magazine, Sept. 2020





Selected Funded Research Projects

UNITY-6G – UNified archITecture for Open RAN-enabled Distributed, Scalable and Sustainability-enhanced 6G Networks

5G STAR – Advanced methods and techniques for identification and counteracting cyber-attacks on 5G access networks and applications – NCBIR

COHERENT – Coordinated control and spectrum management for 5G heterogeneous radio access networks – EU H2020

5GNOW – 5th Generation Non-Orthogonal Waveforms for Asynchronous Signalling – EU FP7

SOLDER – Spectrum OverLay through aggregation of heterogeneous DispERsed Bands – EU FP7

NEWCOM# – Network of Excellence in Wireless Communication – EU FP7

ACROPOLIS – Advanced coexistence technologies for radio optimisation in licenced and unlicensed spectrum – EU FP7

COGEU – Cognitive radio systems for efficient sharing of TV white spaces in European context – EU FP7

Our Advisory Board



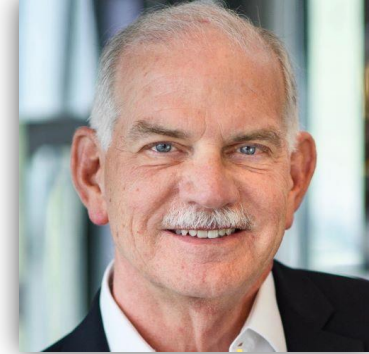
Prof. Lajos Hanzo, Ph.D.

*Professor at University of Southampton
UK*



Prof. T. Russell Hsing

*Advisory Council Member for Harvard
Business Review, USA*



Prof. H. Vincent Poor

*Professor at Princeton University
USA*



Russell Lundberg

*Consultant & Senior Manager
USA*



Youssef Ould Chekih Mouhamedou, Ph.D.

*Senior R&D Expert/Advisor at Saudi Telecom Company (STC),
Saudi Arabia*





Your trusted partner in: O-RAN,
LTE, 5G, 6G, RRM, and Private
Mobile Networks.

How we can help you?

Let's keep in touch!

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