

MRW2022

Microwave and Radar Week

 MIKON-2022 24th International Microwave and Radar Conference



Women in Science and Engineering Matinee

Gdansk, Poland, 12 September 2022, 14:00 – 18:10

SESSION CHAIR: *Dr. Malgorzata Celuch*



SESSION ORGANISED BY:





Women in Science and Engineering Matinee



Thank You...

Prof. Jozef Modelski (MRW Chair; IEEE Fellow, former MTT-S President and Region 8 Director)
for being always so supportive of Women in Science and Engineering,

Dr. Agnieszka Konczykowska (AKDesign; IEEE Fellow, Editorial Board of IEEE Proc.) and **Dr. Marzena Olszewska-Placha** (QWED)
for envisaging and organising this session with me from the very beginning,

our Distinguished IEEE Guests: **Prof. Rashaunda Henderson** (IEEE MTT-S President) and **Prof. Jasmin Grosinger** (IEEE MTT-S DML)
and remotely, speaking from Marconi House – **Prof. Alessandra Costanzo** (newly elected IEEE Fellow)
for accepting my invitation and devoting your time to enhance the impact of the WiSE session,

our speakers from beyond (or new to) the established IEEE MTT-S community
for enhancing the WiSE session diversity

Janine Jost – for providing the managerial insight and assisting in co-funding the session by H2020 NanoBat,
Paulina Epler and **Beat Wald** – for providing the defence insight,
Cerine Mokhtari – for bringing the insight from the younger generation

all the Attendees, for being here with us and providing your support to the WiSE!
Gdansk, Poland, 12 September 2022





Women in Science and Engineering Matinee



IEEE Women in Engineering Affinity Group

IEEE WIE Membership July 2022

IEEE WIE Affinity Groups



Section: 208 // Student: 935 // Total: 1,143

IEEE WIE Membership

Total Membership 31,284

collaborating with other
Women in STEM
societies

identifying & solving
issues of common interest

Gdansk, Poland, 12 September 2022





Women in Science and Engineering Matinee



Women at MIKON – Microwave & Radar Week



“At MIKON, there have always been women in microwaves, but there has never been a Women in Microwaves (WiM) event.” I thought this catchy phrase would open the doors to organizing an inaugural event as part of Microwave and Radar Week (MRW) 2020 [1]. And it did!

Women in Microwaves

Women in Microwaves at MIKON: (Not) for the First Time

■ Malgorzata Celuch

report & thoughts around the **inaugural WiM session at MRW 2020**





Women in Science and Engineering Matinee



Part I: Session M04, 14:00 – 15:40

Coffee Break (and Posters)

Part II: Session M04, 16:30 – 18:10

14:00 **Welcome:** Dr. Malgorzata Celuch (Session Organiser) and Prof. Jozef Modelski (MRW Chair)

14:20 **Talk from IEEE MTT-S Distinguished Microwave Lecturer:** Prof. Jasmin Grosinger

14:40 **Talk from IEEE MTT-S President:** Prof. Rashaunda Henderson

15:20 **Talk from IEEE Fellow, Member of Editorial Board of IEEE Proc.:** Dr. Agnieszka Konczykowska

15:40 Open discussion (or **buffer time for interim discussions!**)

INDUSTRY → ACADEMIA

ACADEMIA → INDUSTRY

Questions: **what has been my career path – where am I now – how do I envisage my future?**

Gdansk, Poland, 12 September 2022





M04: Focused session Women in Science and Engineering Matinee

Room: Heinrich Hertz (room 352)

14:00 *Welcome to the WiSE Afternoon*

Malgorzata Celuch (QWED, Poland)

At MIKON, there have always been women in microwaves, but the first dedicated Women in Microwaves session was only held in 2020. It sparked significant interests and was subsequently featured in the July 2021 issue of the IEEE Microwave Magazine. This year we want to build upon it but also reach out to a broader audience of women active in both engineering and science, and in the management of the two, including some traces of history.

14:20 *RF Design for Ultra-Low Power Wireless Communication Systems*

Jasmin Grosinger (Graz University of Technology & Institute of Microwave and Photonic Engineering, Austria)

In this talk, I will present radio frequency (RF) design solutions for wireless sensor nodes to solve sustainability issues in the Internet of things (IoT), which arise due to the massive deployment of wireless IoT nodes on environmental and economic levels. Engineers can apply these RF design solutions to improve the ultra-low-power operation of IoT nodes, avoid batteries' eco-toxicity, and decrease maintenance costs due to battery replacement. The solutions offer high integration levels based on system-on-chip and system-in-package concepts in low-cost complementary metal-oxide-semiconductor technologies to limit these nodes' costs and carbon footprints.

14:40 *Personal Career Journey and Millimeter Wave Interconnects and Antennas*

Rashaunda Henderson (University of Texas at Dallas, USA)

This talk will describe my career journey highlighting my transition from industry to academia and how my volunteering activities in IEEE MTT-S facilitated my most recent academic role as Professor at UTD. I will then present some results in silicon interconnects and progress related to the design of antennas in package, all in the millimeter wave band.

15:00 *From Academia to Industrial Research - Working Experience*

Agnieszka Konczykowska (ADesign, France)

This talk will present personal working experience, which combines work at University followed by research in telecommunication domain in different large companies. Beside sharing social and human observation, the technical work in a team with the goal of providing high speed integrated circuits and modules for telecom system experiments will be presented. Different competencies and expertise available in this small team, like: semiconductor technology, devices modeling, circuit design, circuit measurements and packaging will be further detailed.

15:20 *WiSE Open Discussion*

Malgorzata Celuch (QWED, Poland)

WiSE Open Discussion

Gdansk, Poland, 12 September 2022





Women in Science and Engineering Matinee



Part I: Session M04, 14:00 – 15:40

Coffee Break (and Posters)

Part II: Session M04, 16:30 – 18:10

WOMEN IN...

16:30 ..EC funded projects: Janine Jost

16:50 ..defense sector: Paulina Epler

17:10 ..Marconi house (and footsteps): Alessandra Costanzo (*remote*)

17:30 ..early phases of their career: Cerine Mokhtari

17:50 ..research SME: Marzena Olszewska-Placha & Malgorzata Celuch (QWED)
(or buffer time for interim discussions!)

WOMEN ARE EVERYWHERE

(WHETHER ONE LIKES IT OR NOT)

Questions: where am I now – where would I want to be – what would it take...

Gdansk, Poland, 12 September 2022





M10: Focused session Women in Science and Engineering Matinee - part II

Room: Heinrich Hertz (room 352)

16:30 Women in EC Funded Projects - Challenges & Opportunities

Janine Jost (European Research and Project Office GmbH, Germany)

Globally, the issue of women's visibility in society and their chances to pursue their professional careers have been on the rise with the general acceptance that women's participation in many aspects of our daily and professional lives needs to be increased. This talk will present funding opportunities for young researchers as well as renowned scientists within the scope of the European Commission's funding programmes for research & innovation. A focus will be given to the current programme Horizon Europe. Reflections and evaluations as well as experience with previous programmes FP7 and Horizon 2020 will also be shared. Finally, specific challenges and opportunities for women in innovative EC funded projects will be shown. The presentation should inspire women in science to take advantage of EC funding opportunities to boost their careers and strengthen personal professional networks.

16:50 Women in Defense Sector

Paulina M. Epler (Raytheon Technologies Corporation, Poland)

In this talk, I will present personal experiences of working in defense industry in Poland. I will shed light and explore differences between working in Raytheon Technologies Corporation, American aerospace and defense conglomerate, and other defense companies. I will also discuss how Raytheon Technologies empowers women by prioritizing equality, diversity and inclusion in the workplace. Beside sharing my personal observation I will also focus on contracting with American defense companies in accordance with Foreign Acquisition Regulations (FAR).

17:10 The Research on Nonlinear/EM Co-Design Techniques in Villa Griffone, the Home of Guglielmo Marconi

Alessandra Costanzo (DEI, University of Bologna, Italy)

In this talk I will review the most significant techniques, in the field of linear and non-linear RF/microwave components, based on the harmonic balancing method developed for more than twenty years in the University of Bologna research labs hosted in Guglielmo Marconi's home. In particular I will consider the nonlinear-electromagnetic co-design of microwave front-ends, able to efficiently combine circuit models of the systems, connected to the antenna,s with the electromagnetic simulation of the antennas and radio channels themselves. SISO and MIMO (Multiple-Input-Multiple Output) systems circuit-level design examples will be considered, with emphasis on WPT and energy harvesting applications.

17:30 My Journey into Engineering - Thoughts from a PhD Student

Cerine Mokhtari (CNRS-IEMN - IRCICA - Université de Lille, France)

Becoming an engineer has been my dream since childhood and I could not picture myself doing anything else. I think that the most important thing when choosing a career is to do what we are really passionate about and work hard towards it. As a woman in engineering and science, I hope to see more women following their passion and love for science.

17:50 Women at QWED and Our Activities in EC H2020 and ERA-NET Projects - Remarks from Session Organisers

Marzena Olszewska-Placha and Malgorzata Celuch (QWED, Poland)

Women at QWED and our Activities in EC H2020 and ERA-NET Projects - Remarks from Session Organisers

Gdansk, Poland, 12 September 2022





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Suggested questions:

Science & Engineering in Industry & Academia:

what has been my career path – where am I now – how do I envisage my future?

Science & Engineering in Industry & Academia:

where am I now – where would I want to be – what would it take...

What **was the biggest CHALLENGE** in my WiSE life? How did I solve it? Who / what helped me?

Where do I see **major CHALLENGES in front of me**? Who / what / how could help me? Whom / how / why would I want to help?

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