
Svetlana Gorenkova

Research Engineer

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The area of my research interests is magnetic resonance imaging and microwave devices. The main activity is the development of lightweight tunable RF devices that improve the uniformity of the near electromagnetic field in the region of interest. During my work, I am responsible for developing a metasurface-based pad, simulations of the MR scanner RF coil including human body model, selection of component base and materials, and prototype design.

EDUCATION BACKGROUND

Name of organization: ITMO University

Title of qualification: MSc in Technical Physics with a specialization in MRI

Title of graduation work: Tunable metasurface-based pad for abdomen MRI at 3T

Main subjects: NMR, MRI, Electrodynamics, Antennas and Microwave devices, Numerical methods

**September 2021 –
present day**

Name of organization: Peter the Great St. Petersburg Polytechnic University

Title of qualification: BSc in Electronics and Radio Physics

Title of graduation work: Design of a waveguide phase shifter on diaphragms

**September 2016 –
June 2020**

EMPLOYMENT HISTORY

Work place: ITMO University

Title: Research Engineer

Main activities and responsibilities:

- Electromagnetic simulations of RF devices
- Prototyping
- Experimental studies in MW lab and MRI
- Paper drafting

**December 2021 –
present day**

Work place: TAIPIT-IP LLC

Title: Engineer

Main activities and responsibilities:

- Carrying out acceptance tests of manufactured products
- Measurement of metrological characteristics of devices
- Correction of design documentation
- Assembly of printed circuit boards

**November 2020 –
August 2021**

Work place: Magneton, OJSC

Title: Process control engineer

Main activities and responsibilities:

- Analysis of design documentation
- Development of technological documentation
- Passage of normative control

August 2019 –

February 2020

CONFERENCES AND PRESENTATIONS

XI All-Russian Scientific and Technical Conference

April 2022

"ELECTRONICS AND MICROELECTRONICS Microwave"

S.V. Gorenkova, G.A.Solomakha, A.V. Shchelokova, S.B. Glybovski

ADJUSTABLE ABDOMINAL MRI PAD

St. Petersburg, Electrotechnical University "LETI".

XI Young Scientists Congress

June 2022

S.V. Gorenkova, G.A.Solomakha, A.V. Shchelokova, S.B. Glybovski

ADJUSTABLE ABDOMINAL MRI PAD

St. Petersburg, ITMO University.

X Young Scientists Congress

April 2021

S.V. Gorenkova, A.S. Cherepanov

DESIGN OF A WAVEGUIDE PHASE SHIFTER ON DIAPHRAGM

St. Petersburg, ITMO University.

HARD SKILLS

- CST Studio Suite · Ansys HFSS · Microwave Office · Altium Designer
- MATLAB · Python · Mathcad
- Assembly of printed circuit boards

SOFT SKILLS

- Leadership · Communication · Teamwork
- Motivated · Ambitious · Creativity · Volunteer

SCHOLARSHIPS AND AWARDS

- Faculty Scholarship for Academic Excellence of ITMO University, 2022
- NIRMA Grant from the Physics and Technology Mega-Faculty of ITMO University, 2021 - 2022