CURRICULUM VITAE

Natalia Ermolova, Ph. D., tel: +358 9 451 2360 (office), fax: +358 9 451 2345, e-mail: natalia.ermolova@hut.fi.

PROFESSION
 Engineer in the field of the radio signals and systems. Current research interests lie in the area of signal processing and digital communications with emphasis on multicarrier systems.

EDUCATION.
Doctor of Philosophy in radio engineering, 1985. Moscow University of Radio Engineering, Electronics and Automatics. Thesis: Decentralized systems of synchronization. Engineer in the area of automatic control systems (diploma with honour), 1978. Moscow University of Aerospace Technology (Aviation Institute), Faculty of Automatic Control.

PROFESSIONAL BACKGROUND.

1999- up to now. Researcher, Senior Research scientist, Communications and Radio Laboratories, Helsinki University of Technology.
RESEARCH AREA
• Statistical communication theory: theory of radio signals and systems; theory of multicarrier signals and systems; optimal control and filtering; nonlinear signal processing algorithms (including application of neural networks in signal processing), Fourier transform application in signal processing.
• Analysis of nonlinear effects in communication systems: theoretical characterization of nonlinear distortions in communication systems with the emphasis on multicarrier systems.
•Development of techniques for compensation for nonlinear effects in communication systems: peak-to-average power ratio reduction techniques; linearization techniques for power amplifiers; equalization methods for nonlinear radio channels.

CURRENT RESEARCH PROJECT

"Bandwidth and power efficient OFDM-based communication systems".

The project is supported by Academy of Finland.

1994-1998   Docent. Course: Radio circuits and signals. Moscow University of Radio Engineering, Electronics and Automatics, Faculty of Theoretical Foundations of Radio Engineering,
TEACHING
•Lectures as well as all kinds of studies in the area of theory of radio signals, theory of linear and nonlinear radio systems.
RESEARCH AREA.
•Development of algorithms of optimal nonlinear filtering in continuous-time radio systems.
• Fourier transform application for not absolutely integrable signals.

1985-1994 Assistant Lecturer. Course: Radio circuits and signals. Moscow University of Radio Engineering, Electronics and Automatics, Faculty of Theoretical Foundations of Radio Engineering.

TEACHING
•Lectures as well as all kinds of studies in the area of theory of radio signals, theory of linear and nonlinear radio systems.

1982-1985 Post-graduate student. Moscow University of Radio Engineering, Electronics and Automatics, Faculty of Theoretical Foundations of Radio Engineering.

1978-1982   Military Air Academy. Engineer-researcher.

ADDITIONAL INFORMATION

A reviewer of many international journals and conferences, a TPC member of IEEE ICC 2007,

PERSONAL BACKGROUND.
Married, two sons - adults.