

Sergey A. Gandzha

Ph.D, Doctor of Technical Sciences

Tenured Professor, Head of the Department “ The Fundamentals of Electrotechnology”, Power Engineering Faculty, South Ural State University

patents - 8, publications – 140

h-index: Scopus - 3, Web of Science - 3, RSCI – 7

CONTACT INFORMATION

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1. EDUCATION

1978	BSc (Specialist Degree in Electrical Engineering), Department of Electrical Machinery and Apparatus, Power Engineering Faculty, Chelyabinsk Polytechnical University, Chelyabinsk, the Russian Federation
1984	PhD (Candidate of Science) Department of Electrical Machinery and Apparatus, Power Engineering Faculty, Chelyabinsk Polytechnical University, Chelyabinsk, the Russian Federation PhD Dissertation: “Optimization of the direct current torque motor parameters”
2012	PhD (Doctor of Science) Department of the Fundamentals of Electrotechnology, Power Engineering Faculty, South Ural State University, Chelyabinsk, the Russian Federation Doctor Dissertation: “Brushless direct current motors with axial magnetic flow. Analysis, synthesis, industrial applications.”

2. PROFESSIONAL EXPERIENCE/ EMPLOYMENT HISTORY

2018 – pres.	Tenured Professor, Head of the Department “ The Fundamentals of Electrotechnology”, Power Engineering Faculty, South Ural State University
2014 – 2018	Dean, Power Engineering Faculty, South Ural State University
2013 – 2014	Tenured Professor, the Department “ The Fundamentals of Electrotechnology”, Power Engineering Faculty, South Ural State University
2001 – 2013	Associate Professor, the Department “ The Fundamentals of Electrotechnology”, Power Engineering Faculty, South Ural State University
1999 – 2001	Head, R&D Department of the joint stock company “Electro Machina” responsible for design of electrical machinery and apparatus, Chelyabinsk, Russia
1984 – 1999	Leading engineer-designer of Special Design Office, “Rotor”, responsible for design of electrical machinery and apparatus, Chelyabinsk, Russia
1978 – 1981	Engineer-designer of Special Design Office, “Rotor”, responsible for design of electrical machinery and apparatus, Chelyabinsk, Russia

3. TEACHING EXPERIENCE

3.1. Undergraduate courses

2001 – pres	Foundations of electrical machinery (lectures, tutorials)
2001 – pres	Design of electrical machines for specific purposes (lectures, tutorials)

2001 – pres	Design and design methods of electrical machines and electromechanical converters (lectures, tutorials)
2001 – pres	CAD of electrical machines (lectures, tutorials)

3.2. Graduate and Postgraduate courses

2005 – pres	Design of special purpose electrical machines (lectures, project-based-learning)
2005 – pres	Simulation of electromagnetic processes: Ansys Electronics Desktop software (lectures, project-based-learning)
2005 – pres	Modeling of electromagnetic processes: Ansys Icepak software(lectures, project-based-learning)
2005 – pres	Development of 3D solid models and drafts using the Solidworks software (lectures, project-based-learning)
2005 – pres	Modeling of aerodynamic processes: Ansys Flowvision software (lectures, project-based-learning)
2005 – pres	Modeling of complex technical systems: MATLAB software (lectures, project-based-learning)
2005 – pres	Development of normative and technical documentation for complex technical products (lectures, project-based-learning)

3.3. Laboratory tutorials

2001 – pres	Study of a three-phase transformer characteristics
2001 – pres	Study of transformer's parallel operation modes
2001 – pres	Study of the characteristics of DC generators
2001 – pres	Study of DC motors characteristics
2001 – pres	Study of synchronous generator characteristics
2001 – pres	Study of synchronous electric motor characteristics
2001 – pres	Study of induction electric motor characteristics

4. AREAS OF SCIENTIFIC EXPERTISE (RESEARCH INTERESTS)

1. Brushless electrical machines with permanent magnets
2. Design of electrical machines for automated systems
3. Windmills design
4. Axial gap machine. Analysis and synthesis
5. Design of transmissions for hybrid and electric vehicles

5. HONORS/AWARDS (ACHIEVEMENTS)

1. The winner of the 6th International Award "Small Energy - Big Achievements"; the nomination "Innovative solutions in the field of energy"; the project "Electric energy storage based on technology for producing methanol from water and carbon dioxide", 2018

2. 9 diplomas for outstanding academic accomplishments
3. International internship in Sonoma State University, CA, the USA, 2011, 2012
4. International internship in CalPOLY, CA, the USA, 2013