



Sorin Pasca

Work : Universitatii St. No. 1, 410087, Oradea, Romania

Email: spasca@uoradea.ro **Phone**: (+40) 259408664

WORK EXPERIENCE

[03/2005 – Current]

Associate Professor

University of Oradea, Faculty of Electrical Engineering and Information Technology www.uoradea.ro

Address: Universitatii St. No. 1, 410087, Oradea, Romania

Business or sector: Education

- teaching activity: courses, laboratory and project hours, design and implementation of some laboratory equipments for didactic activities, coordination of bachelor theses, guidance of students. Disciplines: Nonconventional Electrical Technologies and Equipments, Electrical Installations, Advanced Systems in Electrothermal Industrial Installations, Energy Optimization in Industrial Electrothermal Installations, Electric Power Use, Electrical Apparatus
- scientific activity: research activity on research contracts or grants, obtained through competition, as project director or as a team member; writing of scientific papers, participation in national and international conferences

[10/1994 – 03/2005]

Lecturer

University of Oradea, Faculty of Electrical Engineering and Information Technology www.uoradea.ro

Address: Universitatii St. No. 1, 410087, Oradea, Romania

Business or sector: Education

- teaching activity: courses, laboratory and project hours, design and implementation of some laboratory equipments for didactic activities, coordination of bachelor's theses, guidance of students. Disciplines: Electric Power Use, Electrothermal Installations, Nonconventional Electrical Technologies and Equipments, Electrical Installations, Electrical Apparatus
- scientific activity: writing of scientific papers, participation in national and international conferences, research activity within research contracts/grants

[10/1993 – 10/1994]

University teaching assistant

University of Oradea, Faculty of Electrical Engineering and Information Technology

Address: Oradea, Romania

- teaching activity: laboratory and project hours. Disciplines: Electrical Installations and Electric Power Use, Electrothermal Installations, Electrotechnologies;
- scientific activity: research activity, writing of scientific papers, participation on national conferences.

[01/1991 – 10/1993]

Electrical engineer

Mechanical Factory No. 3, Babeni

Address: Rm. Valcea, Romania

- design of electrical installations related to subassemblies used in the technological flow, maintenance and repair of the electrical equipment of the factory (rewinding of electrical machines, electrical installations of power and automation related to the thermal power plant, electrical equipment of machine tools, etc.), PRAM checks and measurements (grounding, antistatic floors, lightning protection installations, MT switches)

[09/1987 – 01/1991] **Electrical engineer**

Mechanical Factory "Petru Groza" (Hyperion S.A. Stei)

Address: Stei, Romania

Activities first as a trainee engineer, and then technologist engineer, laboratory tests and verifications engineer, coordination of the electricians team on the installation of electrical equipment and commissioning at the beneficiary, on the endurance tests and verifications in order to homologation of complex electromechanical equipment of the factory production

EDUCATION AND TRAINING

[10/1994 – 04/2004] **PhD in Electrical Engineering**

University of Oradea

Address: Oradea, Romania

Level in EQF: EQF level 8

- deepening knowledge of theoretical electrotechnics;
- advanced study of electromagnetic induction heating processes and installations and of the industrial electrothermal installations;
- design in the field of the electrothermal equipment, especially of induction furnaces for melting metals;
- numerical modeling of the electromagnetic phenomena coupled with the thermal ones in the processes of heating using eddy currents;
- competence in the use of professional numerical modeling programs based on finite element method;
- skills in performing experimental determinations in the industrial electrothermal installations

[09/1982 – 06/1987] **Electrical Engineer (Electrotechnics)**

Polytechnic Institute of Cluj-Napoca, Faculty of Electrotechnics

Address: Cluj-Napoca, Romania

Level in EQF: EQF level 6

Mathematical Analysis, Special Mathematics, Physics, Basics of Electrotechnics, Electrical Equipment, Electrical Machines, Electrical Apparatus, Electrical Measurements, Electric Power Use, Electrothermal Installations, Special Electrical Technologies, Electric Traction, Design of Industrial Electrical Installations, Power Plants and Electrical Networks

[09/1977 – 06/1981] **High school graduation**

High school of mathematics and physics no. 1

Address: Cluj-Napoca, Romania

Level in EQF: EQF level 5

Mathematics, Physics, Romanian Language

LANGUAGE SKILLS

Mother tongue(s): Romanian

Other language(s):

English

LISTENING B2 READING C1 WRITING C1

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B2

French

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

NETWORKS AND MEMBERSHIPS

Memberships

IEEE Magnetics Society

IEEE Industry Applications Society

IEEE Power and Energy Society

AIEER (Romanian Association of Electrical and Electronic Engineers)

ARTN (Romanian Association for Nonconventional Technologies)

DRIVING LICENCE

Cars: B

ORGANISATIONAL SKILLS

Organisational skills

- ability to organize teamwork

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

good communication skills, team spirit, adaptability

JOB-RELATED SKILLS

Job-related skills

- ability to handle electrical/electromechanical machines and equipment

Digital skills

- advanced knowledge on Microsoft Office™ tools

- advanced knowledge related to multimedia equipment and the Internet

- skills in using Mathcad™, Matlab™ software

- advanced knowledge on the use of professional software packages for numerical modeling based on finite element method, e.g., Flux™ and Ansys™

REPRESENTATIVE PUBLICATIONS

Representative Publications

A. Books

A1. Sorin Pașca – *The crucible induction furnace. Numerical modeling of the electrothermal processes* (in Romanian), Editura Universității din Oradea, 2004, ISBN 973-613-694-9

A2. Sorin Pașca – *Nonconventional Electrical Technologies and Equipments* (in Romanian), Editura Universității din Oradea, 2004, ISBN 973-613-692-2

B. Papers

B1. S. Pasca, T. Vesselenyi, V. Fireteanu, T. Tudorache, P. Mudura, M. Tomse, M. Popa – *Electromagnetic Forming - an Efficient Technology for Metallic Sheet Processing*, Przegląd Elektrotechniczny, 11/2008, 84, ISSN 0033-2097, p. 197-202

B2. V. Fireteanu, M. Popa, S. Pasca, P. Taras - *Transversal Flux Scanning Induction Heating of Magnetic Nonlinear Steel Sheets With Temperature Dependent Properties*, Journal of Iron and Steel Research International, ISSN: 1006-706X, vol. 19, suppl. 1, oct. 2012, p. 717-722

B3. S. Pasca, V. Fireteanu – *Finite Element Analysis of Successive Induction Heating and Magnetoforming of Thin Magnetic Steel Sheets*, 14th International Symposium on Numerical Field Calculation in Electrical Engineering IGTE 2010, Graz, Austria, Sept. 2010, Proceedings, p. 356-361

B4. S. Pasca, T. Tudorache, M. Tomse - *Finite Element Analysis of Coupled Magneto-Structural and Magneto-Thermal Phenomena in Magnetoforming Processes*; 6th International Conference on Electromagnetic Processing of Materials EPM 2009, Dresden, Germany, oct. 2009; Proceedings, p. 735-738

B5. V. Fireteanu, S. Pasca, M. Popa - *Numerical models of molten glasses electric conduction heating and controlled electromagnetic stirring*, International Conference on Heating by Electromagnetic Sources HES-16, Padua, Italy, May 2016, Proceedings, p. 221-226

C. Grants

C1. CNCSIS grant type A, 1319 / 2007-2008 - Electromagnetic forming of thin metal sheets: numerical analysis of transient processes, experimental validation of numerical models and process optimization, Project Manager

C2. CNCSIS Grant type A, 324/2002 - Evolution of the phase change layer at induction heating of materials, Member of the research team

28/11/2022