



## Curriculum vitae Europass



### Personal information

First name(s) / Surname(s) **VĂTAVU Sorin**  
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E-mail(s) sorinvatavu57@yahoo.com  
Nationality Romanian  
Date of birth The 5th of November 1957  
Gender Male

**Desired position / Professional field** **University of Petroșani, Faculty of Mechanical and Electrical Engineering, Department of Mechanical and Industrial Engineering and Transports / Associate Professor**

### Professional experience

Period **February 2008 →**  
Occupation or position held Associate Professor  
Main activities and responsibilities Lecture, project and laboratory activities carried out with mechanical and industrial engineering and transport licence students (Hydraulic and pneumatic operation, Hydraulic Machineries, Machines' Systems and Equipments) and mechanical engineering master students (Transducers and Physical Measures Measuring Devices, Safety and diagnosis of machineries and equipments, Fluid Process Installations and Equipments, Design Basics, experimental data acquisition and processing); Hydraulic Machines Educational activities with ERASMUS incoming students starting with 2013. Responsibilities: Deputy Director of the Department of Mechanical and Industrial Engineering and Transports (from 2011); Chairman of ALUMNI – University of Petroșani Graduates' Association (from 2013); Responsible of the Timetable Collective of the University (from 2009); Scientific Secretary of the Department of Mechanical and Industrial Engineering and Transports (2010 to 2011).  
Name and address of employer University of Petroșani, Romania  
Type of activity or field of activity Specialised Scientific, technical and management activities

Period **October 1991 – February 2008**  
Occupation or position held Lecturer  
Main activities and responsibilities Lecture, project and laboratory activities carried out with mechanical and industrial engineering and transport licence students (Hydraulic and pneumatic operation, Hydraulic Machineries, Machines' Systems and Equipments) and mechanical engineering master students (Transducers and Physical Measures Measuring Devices, Safety and diagnosis of machineries and equipments).  
Name and address of employer University of Petroșani, Romania  
Type of activity or field of activity Specialised Scientific, technical and management activities

Period **October 1990 – October 1991**  
Occupation or position held Assistant Lecturer

Main activities and responsibilities	Laboratory Activities carried out with mechanical engineering and mining licence students (Hydraulic and Pneumatic Operation, The Mechanic of Fluids).
Name and address of employer	Petroșani Mining Institute (University), Romania
Type of activity or field of activity	Specialised scientific, technical and management activities
Period	<b>May 1990 – October 1990</b>
Occupation or position held	Scientific Researcher
Main activities and responsibilities	Research and design activities (in the fields of electro-mechanics and mining and industrial ventilation) and Assistant Lecturer (Hydraulic and Pneumatic Operations) – Faculty associate
Name and address of employer	Mining Safety Institute (ISM) of Petroșani, Mining Institute of Petroșani, Romania
Type of activity or field of activity	Specialised scientific and technical activities
Period	<b>December 1986 – May 1990</b>
Occupation or position held	Design Engineer
Main activities and responsibilities	Design and research activities (in the field of electro-mechanics and of mining and industrial ventilation) and Assistant Lecturer (Hydraulic and Pneumatic Operation) – Faculty Associate.
Name and address of employer	The Research Centre, Technological Engineering and Design for Mining Safety (CCITPSM) of Petroșani, Mining Institute of Petroșani, Romania
Type of activity or field of activity	Specialised scientific and technical activities
Period	<b>September 1985 – December 1986</b>
Occupation or position held	Process Engineer
Main activities and responsibilities	Design and research activities (the mechanical field) and Assistant Lecturer (Hydraulic and Pneumatic Operation) – Faculty Associate. Deputy Head of Design Staff
Name and address of employer	The Centre for Scientific Research and Process Engineering for Mining Machineries (CCSITUM), Department no. 310 Petroșani, Mining Institute of Petroșani, Romania
Type of activity or field of activity	Specialised technical and management activities
Period	<b>September 1984 – September 1985</b>
Occupation or position held	Engineer in training (assigned)
Main activities and responsibilities	Design activities (in the field of mechanics) and Assistant Lecturer (Hydraulic and Pneumatic Operation) – Faculty Associate.
Name and address of employer	The Centre for Scientific Research and Process Engineering for Mining Machineries (CCSITUM), Department no. 310 Petroșani, Mining Institute of Petroșani, Romania
Type of activity or field of activity	Specialised technical activities
Period	<b>September 1982 – September 1984</b>
Occupation or position held	Engineer in training
Main activities and responsibilities	TQC Activities. Head of TQC Staff of the Department of Hydraulic Mining
Name and address of employer	Mining Machineries Enterprise (IUM) Petroșani, Romania
Type of activity or field of activity	Specialised technical and management activities

## Education and training

Period	29 August 2015 – 05 September 2015
Title or qualification awarded	Staff Mobility for Training
Main subjects / professional skills covered	Skills acquired in: Mechanical Engineering, Hydraulic Power & Machines, Transports Engineering and Quality Assurance
Name and type of the institution providing education and training	PARAGON Europe Malta
National or international classification level	Continuing professional development

Period	1992 – 1999
Title or qualification awarded	Doctorate in Technical Sciences, the field of Mining Machineries and Installations, Thesis: <i>Contributions regarding the energetic study of hydraulic operated mining systems</i> / Diploma Series R No. 3105, No. 228 / 02.02.2001
Main subjects / professional skills covered	Mining Machineries and Installations; Hydraulic and pneumatic operation; Fluid Mechanics / Skills acquired in: Hydraulic power systems; The energetic of hydraulic systems and installations; Fluid transport; Thermal exchange phenomena.
Name and type of the institution providing education and training	University of Petroșani
National or international classification level	PhD studies, ISCED 854 (section 271) in UNESCO ISCED 2011 <a href="http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf">http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf</a>
Period	September 1988 – June 1989
Title or qualification awarded	Post-graduate graduation degree, field of Industrial Robots Diploma Series B No. 2719, No. 469 / 03.09.1990
Main subjects / professional skills covered	Mechanics and Kinematics; Mechanisms; Hydraulic and Pneumatic Operation; Designing and building industrial robots / Skills in designing and building industrial robots
Name and type of the institution providing education and training	Polytechnic Institute of Bucharest
National or international classification level	Post-graduate studies, ISCED 757 (section 258) in UNESCO ISCED 2011 <a href="http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf">http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf</a>
Period	October 1977 – June 1982
Title or qualification awarded	Mechanical Engineer / Diploma Series A No. 18943, No. 308 / 11.10.1984
Main subjects / professional skills covered	Mathematics; Mechanics; Materials' Resistance; Mechanisms and Machineries' Parts; Fluid Mechanics; Hydraulic and Pneumatic Operation; Thermo-technic; Machines' Construction Technology; Mining Machineries and Installations; Technologic equipments / Skills in operating, designing and conceiving mining machines, equipments and installations; Designing, operating and maintaining hydraulic installations and systems.
Name and type of the institution providing education and training	Mining Institute of Petroșani, Faculty of Mining Machineries and Installations
National or international classification level	Long-term higher education ISCED 666 (section 237), domeniul 54 (section 286) în UNESCO ISCED 2011, <a href="http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf">http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf</a>
Period	September 1972 – June 1976
Title or qualification awarded	Baccalaureate Diploma Diploma Series J No. 59047, No. 318 / 30.06.1976
Main subjects / professional skills covered	Mathematics; Physics; Romanian Literature; Foreign Languages; History; Geography; Natural History / General Knowledge Skills
Name and type of the institution providing education and training	Sciences and Humanistic High-school of Petroșani
National or international classification level	Upper Secondary Studies ISCED 344 (section 184) în UNESCO ISCED 2011 <a href="http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf">http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf</a>

## Personal skills and abilities

Maternal tongue Romanian

Known Foreign Language(s) French and English

Self assessment	Understanding		Speaking		Writing
European Level (*)	Listening	Reading	Spoken interaction	Spoken production	Written production
French	C1 Experienced user	C1 Experienced user	C1 Experienced user	B2 Independent User	B1 Independent User
French	B1 Independent User	B1 Independent User	B1 Independent User	A1 Elementary User	A1 Elementary User

(\*)Common European Framework of Reference for Languages

- Social skills
- Communication skills acquired through personal scientific and educational experience;
  - Team spirit acquired during the professional training process.

- Management skills
- Managerial, analysis and synthetic skills acquired through training and personal experience (Positions in the Council of the Department of Mechanical and Industrial Engineering and Transports since 2010; Coordinating the design / research activity - 1985 – 1990).

- Technical skills and abilities
- Designing components and synthesising mechanical systems;
  - Designing, building and operation of classical measuring systems based on sensors and transducers specific to fluid processes;
  - Designing, building, operation and maintenance of hydraulic operation systems and hydraulic networks;
- Skills acquired through professional formation and personal professional experience.

- Computer skills and abilities
- Using Microsoft Office tools and Windows, skills acquired through personal experience and professional training sessions.

Artistic skills and abilities -

- Other skills and abilities
- University time table staff responsible since 2009;
  - Chairman of ALUMNI, University of Petroșani Graduates' Association – since 2013;
  - Miniature models.

Driver's Licence Category B

- Additional information**
- Deputy Director of the Department of Mechanical and Industrial Engineering and Transports;
  - Member in the Senate of the University of Petroșani;
  - Member of the Council of the Faculty Mechanical and Electrical Engineering;
  - Member of the General Assembly of Engineers of Romania;
  - Associate Editor for the Annals of the University of Petroșani, Mechanical Engineering;
  - Chairman of the University of Petroșani Graduates' Association ALUMNI
  - Statistics and scientific activity:
    - 5 speciality books and booklets, published by CNCSIS (2) and locale (3) publishing houses
    - 99 published scientific papers, 6 of which are published abroad, 11 in BDI, 33 B+ and B according to CNCSIS
    - 1 patented innovation
    - 26 research papers based on researching contracts as head of researching theme and staff
    - 12 Students' Scientific Sessions coordinated papers, 6 rewarded papers

## Additional information

### Scientific activity - extract

#### - Monographs and speciality books

1. Pătrașcu P., **Vătavu S.**, *Hidraulica mașinilor miniere. Elemente de acționări hidraulice*, Universitas Publishing House, ISBN (10) 973-741-029-7; ISBN (13) 978-973-741-029-0, Petroșani, 301 pages, 2006
2. **Vătavu S.**, *Mașini hidraulice. Turbine hidraulice. Fundamente*, Universitas Publishing House, ISBN (10) 973-741-052-1; ISBN (13) 978-973-741-052-8, Petroșani, 272 pages, 2006
3. Pătrașcu P., **Vătavu S.**, *Tructoare și aparate pentru măsurarea mărimilor fizice*, University of Petroșani Lithography, 1997

#### - Papers published in speciality magazines and conference volumes

1. Vătavu N., **Vătavu S.**, *Opinions on the Compliance of Underground Non-metallic Pipework Intended for the Conveyance of Oil Products with the European Safety Requirements*, Annals of the University of Petroșani, Mechanical Engineering, vol. 11 (XXXVIII), ISSN 1454-9166, Petroșani, 2009, pp. 229-236
2. Vătavu N., **Vătavu S.**, and others, *New test methods of non-metallic pipeworks for liquid fuels* Wiertnictwo Nafta Gaz 26/3, Czasopisma Elektryczne Akademia Górniczo-Hutnicza, ISSN 1507-0042, Krakow, 2009, pp. 567-573. <http://journals.bg.agh.edu.pl/WIERTNICTWO/index.php?vol=2009-03>
3. **Vătavu S.**, Vătavu N., *Ideas concerning the Safety of Hydraulically-mechanized Supported Coal-Faces*, Annals of the University of Petroșani, Mechanical Engineering, vol. 12 (XL), ISSN 1454-9166, Petroșani, (B+, CNCSIS magazine), 2011, pp. (being issued)
4. **Vătavu S.**, Vătavu N., *Structural and Functional Particularities and Principles of Calculus for the Energetic Parameters of Hydraulic Props in Powered Roof Support*, Colloque FRancophone en Energie, Environnement, Economie et Thermodynamique (COFRET), 4-eme edition, pe CD, ISBN 2.6905267.61.5, Ecole des Mines de Nantes, 2008
5. **Vătavu S.**, Vătavu N., *Systems for the Control and Adjustment of Hydraulic Parameters in the Main Feed Pipelines of the Powered Roof Supports for Longwall Working*, Proceedings of the International Conference on Hydraulic Machinery and Equipments HME 2008 in Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Mechanics, Tom53 (67), Special Issue, ISSN 1224-6077, (B+, CNCSIS magazine), pp. 405-410, 2008
6. **Vătavu S.**, Vătavu N., *Study on the Safety Valves for the Hydraulic Props on the Roof Supports used during Coal Mining*, Annual of University of Mining and Geology „St. Ivan Rilski”, vol. 53, Part. III, Mechanization, electrification and automation on mines, ISSN 1312-1820, Sofia, 2010, pp. 7-11.
7. **Vătavu S.**, Vătavu N., *Theoretical Aspects on Pumping Systems and Hydraulic Networks*, Lucrările științifice ale Simpozionului Internațional Multidisciplinar UNIVERSITARIA SIMPRO 2010, Technological machines and equipments technology, mechanisms and machines mechanics and resistance, ISSN 1842-4449, Petroșani, 2010, pp.105-110.
8. **Vătavu S.**, Vătavu N., *The Study of Hydrodynamic System used in Rail Transport*, Annals of the University of Petroșani, Mechanical Engineering, vol. 14 (XLI), ISSN 1454-9166, Petroșani, (BDI: EBSCO, Scipio, Periodicals.ru, ..., B+ magazine, code 26 CNCSIS), 2012, pp 211-218.
9. Loga W., **Vătavu S.**, Florea V.A. *Possibilities to reduce Interruption in the Excavators EsRc-1400 functioning by Improving Centralized Lubrication System of Bearing pressure*, Revista minelor / Mining Revue, nr. 1, ISSN-L 1220-2053/ISSN 2247-8590, (BDI: EBSCO, B+ magazine, code 293 CNCSIS), Petroșani, 2013, pp. 37-40.
10. **Vătavu S.**, Vătavu N., *Pressure Source for Hydraulic Actuators used in Hazardous Explosive Atmospheres*, The 6<sup>th</sup> International Conference on Manufacturing Science and Education – MSE 2013 – Proceedings, ISSN 1843-2522, Sibiu, 2013, pp 341-344.
11. **Vătavu S.**, Vătavu N., *Structural, Functional and Energetic Markers of Refrigerating Installations*, 6<sup>th</sup> International Multidisciplinary Scientific Symposium "UNIVERSITARIA SIMPRO 2014"- Proceedings on CD, ISSN-L 1842 – 4449; ISSN 2344 – 4754, University of Petroșani, 10-11 oct. 2014, pp. 390-395. <http://www.upet.ro/simpro/2014/proceedings/06%20-%20MECHANICAL%20ENGINEERING%20AND%20TRANSPORT/6.2.pdf>

#### - Contracte de cercetare

1. Florea C., **Vătavu S.**, and others – co-author, *Materiale metalice cu structuri compozite utilizabile în atmosfera potențial explozivă*, contract no. 98/04.09.2006, addendum 1/2007 with ANCS, Excellence Researching Programme - MATNANTECH, Module I CEEX, 2007 – 2008
2. **Vătavu S.**, – head of researching theme, *Studiu privind soluțiile tehnice în vederea realizării și punerii în funcțiune a standurilor de încercare pentru conducte nemetalice, Faza 1: Analiza soluțiilor tehnice pentru realizarea standurilor de încercare în vederea asimilării și implementării noilor metode de încercare și evaluare precisă a caracteristicilor conductelor nemetalice subterane pentru produse petroliere. Concepere / proiectare standuri de încercare pentru încercări hidraulice, pneumatice și mecanice*, Contract no. 8385/2008, part of the Finance contract PN 07-45-02-04/31.01.2007, with INSEMEX Petroșani, 2008