



Europass Curriculum Vitae

Personal information

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| First name(s) / Surname(s) | Brândușa Ghiban | |
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| Nationality | Romanian | |
| Date of birth | 25/05/1959 | |
| Gender | Female | |

Work experience

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| Dates | 01/10/2009 → present |
| Occupation or position held | Professor (by contest) |
| Main activities and responsibilities | <p>As professor I am holding courses and laboratory works on Faculty of Science and Engineering of Materials (SEM): " Quality Assurance implants" (Biomedical Engineering), Biochemistry (III year, Engineering biomaterials) " Advanced methods for materials processing and GMP standards" (Masters, first year, specialization in metallic biomaterials), " Electric and Magnetic Testing " (master, second year, specialization in materials testing), Department of Biomaterials: "Processes at the tissue - implant interface " (Masters, first year) and FILS: „Corrosion and Protection of Metallic Materials” (fifth year), „Physical Metallurgy” (second year), „Properties of Materials” (third year), „Metallic Biomaterials” (fourth year).</p> <p>SOCRATES-ERASMUS coordinator of activities in the faculty SEM, by which more than 40 students were sent as ambassadors of UPB ERASMUS, and over 20 teachers participated in the bilateral agreements to support public lectures.</p> <p>Visiting professor for lectures in the field of Materials Science and Biomaterials at prestigious universities from Europe: Politecnico di Torino, Italia (2000-2011), University of Patras, Greece (2003, 2004, 2005, 2007, 2009), La Sapienza University, Rome, Italy (2005), Ecole Nationale des engeneours, Tarbes, France (2009).</p> <p>As a researcher I have managed and participated in various research projects within ANSTI, RELANSIN, MENER, UEFISCDI, CNMP. Areas of competence for research were: physical metallurgy of metallic materials, structural theory of materials property, implant quality assurance, advanced methods for processing biomaterials, corrosion of metallic materials.</p> <p>Patenting activity: "Orthopaedical Increasing screw rod and process for bio-compatibility which consists of a cone-shaped point which has continued threaded segment with the threaded section adapted in order to implant cortical bone area" (RO125357-A0), „Recuperative radiant tube burner comprises a main burner and a single recovery unit provided with radiant tubes, where the main burner is fixed on the furnace wall by a flange fixed by screws" (RO126147-A0), "Biocompatible Austenitic Stainless Steel for osteosisthesis surgical implants" (A/00709 / 10.09.2009).</p> <p>Technical activity consisted in numerous expertises in the field of competency, such as corrosion, physical metallurgy, and also three patents: RO126147-A0, RO125357-A0, RO126147-A0.</p> |

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| Name and address of employer | Department of Metallic Materials Science, Physical Metallurgy, Materials Science and Engineering Faculty, University Politehnica Bucharest Splaiul Independenței no 313, cod 060042 Bucharest (Romania) |
| Type of business or sector | Education, scientific research |
| Dates | 01/10/1997 - 01/10/2008 |
| Occupation or position held | Associate Professor (by contest) |
| Main activities and responsibilities | Holder of the courses „Metallic Biomaterials” (year IV, FILS) „Corrosion and Protection of Metallic Materials” (year V, FILS) "Properties of the materials' (second year, FILS) "Quality Assurance implants" (Biomedical Engineering). Research activities in the field of physical metallurgy, structural theory of metallic materials, development of concept concerning synthesis of thin film in infrared fields on metallic supports. SOCRATES coordinator in the SIM faculty, participation in workshops in the field of materials science (Dubna, Russia 2002). Patenting activities concerning: „Allotropic stannum alloy stable at low temperature” (RO 121432 B1), „Method of corrosion resistance of zinc sheet used as structural materials” (Brevet 1023335, 06.06.2005). |
| Name and address of employer | Department of Physical Metallurgy and Materials Science, Faculty of Materials Science and Engineering, UPB, Splaiul Independenței no 313, cod 060042 Bucharest (Romania) |
| Type of business or sector | Education, scientific research |
| Dates | 01/03/1992 - 01/10/1997 |
| Occupation or position held | Lecturer (by contest) |
| Main activities and responsibilities | Teaching various subjects that are part of the current structure of the station out to contest, that: materials science (1993 - 1994, Mechanics); Structural theory and properties of materials (III or IV, SIM, from 1993 to 1997)., and „Physical Metallurgy” III year in the Department of English, currently FILS, I drove the course also in the laboratory work. |
| Name and address of employer | Department of Physical Metallurgy and Materials Science, Materials Science and Engineering Faculty, University Politehnica Bucharest, Splaiul Independenței no 313, cod 060042 Bucharest (Romania) |
| Type of business or sector | Education, scientific research |
| Dates | 25/02/1991 - 01/03/1992 |
| Occupation or position held | Assistant |
| Main activities and responsibilities | Manage of laboratory work with students, at the subjects: Physical metallurgy (year III, engineers. Day, SIM) The theory of structural and material properties (IV, SIM); The study of metals(I, TCM, Transport, Agricultural Mechanics, Mechanics); Study of special materials (II, IMST). |
| Name and address of employer | Department of Physical Metallurgy and Materials Science, Materials Science and Engineering Faculty, University Politehnica Bucharest, Splaiul Independenței no 313, cod 060042 Bucharest (Romania) |
| Type of business or sector | Education, scientific research |
| Dates | 16/09/1985 - 25/02/1991 |
| Occupation or position held | Researcher |
| Main activities and responsibilities | Activities of completion in stripping wire technology in different austenitic stainless steels, to highlight various methods for detecting intergranular corrosion susceptibility of austenitic stainless steels, and the realization of a specification and approval of a new austenitic stainless steel, which led to the realization of an invention. In this sense one could highlight the achievement of the Task no. 535/1989 (ICEM) - "Forged Bars austenitic stainless steel for strong oxidizing environments." Patenting activity: „Non-corrosive austenitic steel – containing low carbon, phosphorus, sulphur, chromium, nickel, silicon, nitrogen and niobium” (RO106585-B1) |
| Name and address of employer | Metallurgical Research Institute (ICEM) Str. Mehadia, no 39, Bucharest (Romania) |
| Type of business or sector | Scientific Research |
| Dates | 15/09/1983 - 14/09/1985 |
| Occupation or position held | engineer, research |
| Main activities and responsibilities | Activities for the development of normalization heat treatment technology applied electrical strip plates, expertise in making this number of lots that are being processed at the polling LBE. |

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| Name and address of employer | Special Steel Plant Targoviste (COST) 9-11 Gaesti, Târgoviște (Romania) |
| Type of business or sector | Production of ferrous metals and ferrous alloys in primary forms |
| Education and training | |
| Dates | 2015 |
| Title of qualification awarded | Habilitation certificate, in accordance with O.M. nr. 4209/10.06.2015 |
| Principal subjects / occupational skills covered | Materials Engineering, Materials Science |
| Name and type of organisation providing education and training | Ministry of Education and Scientific Research, General Department of University Education, University Certificates |
| Level in national or international classification | Habilitation certificate and quality of PhD coordination |
| Dates | 1990 - 1995 |
| Title of qualification awarded | Doctor engineer / diploma of doctor |
| Principal subjects / occupational skills covered | Physical Metallurgy, Corrosion of metallic materials, The theory of structural material properties / Evaluation of corrosivity environments containing aggressive fumans nitric acid, Austenitic stainless steel structural characterization. |
| Name and type of organisation providing education and training | Materials Science and Engineering Faculty, Politehnic Institute from Bucharest (IPB) Splaiul Independentei no 313, Bucharest (Romania) |
| Level in national or international classification | diploma of PhD. |
| Dates | 1978 - 1983 |
| Title of qualification awarded | Engineer / Diploma Engineer (valedictorian with 9,89 average mark) |
| Principal subjects / occupational skills covered | Plastic deformation of materials, Heat treatment, Physical chemistry of metallic materials, Physical Metallurgy, The theory of structural material properties, corrosion / General and specific skills in plastic deformation and heat treatment, such as: - Ability to assimilate knowledge and theoretical knowledge of the constitutional structure, structural transformations and properties of advanced materials for general use and special purpose. - Knowledge of constitutional and structural effects of technological processes by which the shape and properties of metallic and nonmetallic final product are made. - Knowledge of scientific bases of dependencies between structure and properties and structure influence the behaviour of metallic materials in use and under the mechanical action, chemical action of the environment, temperature and radiation. - Skills for using methods of analysis of the structure and properties of metallic materials and equipment to ensure their determination. - Powers of selection and use of materials for different destinations according to the composition relationship - processing - structure - properties. - Ability to use information technology industry materials. - Ability to adapt to new technologies, materials industry, in world languages, on future directions and identify needs for personal development courses in European and global supply. - Ability to carry out projects related to the development, characterization and performance testing of materials and interdisciplinary projects in the field materiology. |
| Name and type of organisation providing education and training | Faculty of Metallurgy, Polytechnic Institute of Bucharest Splaiul Independentei no 313, Bucharest (Romania) |
| Dates | 1974 - 1978 |
| Title of qualification awarded | High school diploma (valedictorian with 10 average mark at baccalaureate) |
| Principal subjects / occupational skills covered | mathematics, physics, chemistry, biology, history, Geography, Romanian Language and Literature, Russian, English, Materials technology / locksmith |
| Name and type of organisation providing education and training | "Gheorghe Lazar" (Mathematics School of Physics) Bucharest (Romania) |
| Level in national or international classification | High school diploma |

Personal skills and competences

Mother tongue(s)

Other language(s)

Self-assessment

European level (*)

English

Russian

French

Romanian

| Understanding | | | | Speaking | | | | Writing | |
|---------------|-----------------|---------|-----------------|--------------------|-----------------|-------------------|-----------------|---------|-----------------|
| Listening | | Reading | | Spoken interaction | | Spoken production | | | |
| C2 | Proficient user | C2 | Proficient user | C1 | Proficient user | C2 | Proficient user | C2 | Proficient user |
| A1 | Basic User | A1 | Basic User | A1 | Basic User | A1 | Basic User | A1 | Basic User |
| A1 | Basic User | A1 | Basic User | A1 | Basic User | A1 | Basic User | A1 | Basic User |

(*) [Common European Framework of Reference \(CEF\) level](#)

Social skills and competences

The period of training as a teacher led to learning the following skills and social skills: responsibility; dynamism, initiative and creativity; ability to work with students from all social / cultural; negotiation capacity; adapt to different situations sociability and communicate

Organisational skills and competences

Organizing the college scholarships which were awarded to ERASMUS students at the SIM Faculty. (1999 - present).
 Organization and mobility of teachers at partner universities SOCRATES bilateral agreements (Polytechnic di Torino - Italy, 2000 - present, University of Patras - Greece, 2000 - present)
 Organization of two national symposiums ROMAT materials science (2006, 2008).
 Ability to train teamwork in the scientific field of research for students and university.

Technical skills and competences

Realization of technical expertise in the characterization of metallic materials, macro structural evaluation of materials using stereomicroscope, evaluation of corrosion resistance of materials AUTOLAB equipment, microstructural evaluation of metallic materials with metallographic optical microscope, structural evaluation of fracture surfaces using scanning electron microscope.
 Patenting activity inventory, they were obtained gold medals at international salons in Geneva (2007, 2009, 2010), or national (Grand Prix 2004, mention 2005 Romanian Society for Metallurgy).

Computer skills and competences

windows, word, excel, powerpoint, internet, photoshop, quick microphotoshop, COMSOL

Artistic skills and competences

Play to piano, creation of photographic images, aquagym..

Other skills and competences

Specializations and titles:
 - research and computer design, ICEM, 1987
 -management project RELANSIN, 2001
 - "Continuous Training Programme in the Field of Non-Destructive Techniques and Equipments for Structural Integrity Evaluation of Advanced Materials"- University Patras, Greece, 2007
 -certification to the fifth edition of the summer courses "Dental medicine" 25- 27 may 2011, 95, DDC Constanta County CME Registry
 - Training of external evaluators in the field of quality, organized by ARACIS September 2011 " Quality assurance in higher education in Romania in the European context. Development of academic quality management system and institutional level ", POSDRU/2/1.2/S/1, cod 3933

Additional information

Business development and publication of works has led to the development of educational work, technical and scientific papers.

Works staff (professional) consisted of:

- 13 books and five scientific guidance for the preparation of students;
- Five theoretical chapters, total over 80 pages on "Treaty of Materials Science and Engineering" Volume 1 (2008), and volume 3 (2009);
- 3 specialty books for: preparing students for the studies, master, but researchers in the field of

metallurgy and plastic deformations beings, and a book for biomaterials engineering;
- electronic courses "Physical Metallurgy", "Metallic Biomaterials", "Properties of Materials" and "Quality Assurance implants", Biochemistry, Electric and Magnetic testing, Theory of Structural Properties, Modern Methods of biomaterials Processing and Good Manufacturing Practice, Materials Science, Heat and Chemical Treatments.

Technical work consisted of implementation: - 5 inventions with industrial applicability;

- 3 technical expertise judicial

- 66 scientific papers in ISI Thomson Reuters journals;;

- 66 scientific papers in international base data journals;

- 34 scientific papers published at some international proceeding, ISI Thomson Reuters

- 105 papers at national scientific meetings, BDI

- Over 100 scientific research reports.

Awards: - Gold Metals at International Inventions Salon from Geneva in 2007, 2009 and 2010

- Gold Medal at Inventika International Salon form Bucharest in 2009, 2011

- Silver Medal at Inventika International Salon in 2009

- Mention from Romanian Society of Metallurgy at 2005

- Big Award from Romanian Society of Metallurgy in 2004

Annexes

1. Expert evaluator European Community Brussels on FP7 projects and the Commission of Steel and Coal (RFSC, 2007, 2009, 2010, 2011, 2014); Raw Materials Committee (2015, 2016)
2. Member of the Board of Directors of the Institute of Rare and Radioactive Metals (INCDMRR-ICPMRR in oct.2014);
3. Member of the National Council for Titles, Diplomas and Certificates (CNADTCU) Materials Engineering Committee (2013-2016)
4. Expert institutional evaluator in Romanian Agency for Quality Assurance in Higher Education (ARACIS) (2011 - present);
5. Expert evaluator UEFISCDI projects (competition 2016 - Bridge projects, PED projects PT)
6. Assessor CNMP, competition PNMP (2008- 2012). CNMP Monitor (2008);
7. Member of the Board of the Faculty SIM UPB (1994-2000), (2004-2012);
8. President various committees bacaluareat (High Eugen Barbu- Bucharest 1999 Bucharest 2000 Moisil- Gregory High School Group "Henri Coandă" Ramnicu Valcea 2002 Lyceum -Constanța 2003 National College "Matei Basarab" - Bucharest 2005 Committee assessment -Timis Dambovita 2005 School Waldorf- Bucharest 2006 College CFR - Bucharest 2007 National College Mihai Viteazul - Targoviste august 2007, Rosetti National College - Bucharest 2008); Tenure Committee Chairman (National College Prahova- Rosetti 2013);
9. Founding member of Romanian Society for Biomaterials (2004 -present);
10. Evaluator projects in the program P6, "Metal Powder", MATNANTECH (2002-2005);
11. Academic Expert evaluator research projects CNCSIS (2004, 2005 and 2006);
12. Assessor academic research projects in the framework RELANSIN (2001);
13. Founding member of the Romanian Society of Metallurgy (1990 -present);
14. Evaluator academic research projects in the frame ANSTI (2000);
15. Member of the acquisitions and investments Department EMS MF 2000 - present;
16. Member Council representative SOCRATES-PUB (1996 -present);
17. The central member of the entrance UPB (1999-2010);
18. Member of the Commission to dispose of faculty SIM 2004;
19. Member of Audit Committee CEMS 2003, 2005;
20. Founding member of the Institute of Forecasting Metallurgical Balkans (1999 -present);
21. Member of Americans Society of Metallurgy Romania (1992 - present)
22. Reviewer numerous scientific PhD theses, postdoctoral thesis

02.03.2017