

PERSONAL INFORMATION



DUCU Marian-Cătălin

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Sex M | Date of birth 22/01/1969 | Nationality Romanian

PROFESSIONAL EXPERIENCE

2019 - Present

Associate Professor and Director of Research Centre

University of Pitești

- *Teaching activities:* Materials Science and Engineering, Materials Technology, Non-destructive Testing, Experimental Data Processing, Material Characterization, Composites Materials;
- *Institutional development activities:*
 - Responsible ECTS for the Franco-Romanian Master's Program Science and Materials Technology,
 - Mentor for PhD students in materials engineering;
 - Coordination of research activities carried out within the Regional Research and Development Centre for Materials, Processes and Innovative Products for Automotive (20 employees);
- *Research activities:* Coordination of national (7) and international research projects (1), Publication of scientific papers.

2000 - 2019

University Lecturer, Scientific Researcher gr. III, Head of Research Center

University of Pitești

- *Teaching activities:* Theoretical Physics, Solid State Physics, Structural Analysis, Materials Science and Engineering, Materials Technology, Non-destructive Testing, Experimental Data Processing, Materials Characterization;
- *Institutional development activities:*
 - Establishment of the Research Centre for Advanced Materials - (2004) and coordination of its research activities (2004-2015) (5 employees);
 - Establishment of the Regional Research and Development Centre for Innovative Materials, Processes and Products for the Automotive (2015) (20 employees);
 - 2001-2014, institutional collaboration relations in order to address common research activities with: National Research and Development Institute for Cryogenic Technologies and Isotopic Separations - ICSI Rm. Vâlcea, National Research and Development Institute for Optoelectronics - INOE 2000 Bucharest - Măgurele, National Research and Development Institute for Laser, Plasma and Radiation Physics - INFLPR Bucharest - Magurele, National Research and Development Institute for Isotopic and Molecular Technologies - ITIM Cluj Napoca, National Research and Development Institute for Technical Physics - IFT Iasi, National Research and Development Institute for Physics and Materials Technology - IFTM Bucharest - Magurele, University of Bucharest, University of Craiova, Ovidius University;
 - 2005, the Research Centre for Advanced Materials is recognized as a Type C Centre, following the "Centres of Excellence" competition organized by National Council of Scientific Research and Higher Education in the field of Materials Science;
 - 2008, the Research Centre for Advanced Materials implemented ISO 17025 as a materials testing laboratory and started the National Certification Body procedures;
 - 2009, the Research Centre for Advanced Materials was certified by RENAULT as a laboratory for testing materials by X-ray characterization techniques;
 - 2004 - 2014, CCMA operated as support center for research activities carried out in the master programs of Materials Science and Technology, Nuclear Materials and Technologies, as well as for the doctoral programs in the field of Materials Engineering. During this period, **6 doctoral theses, 1 doctoral program, over 20 dissertation papers** on the master programs listed above and numerous bachelor's papers were completed within the Center;

- 2004-2012, Responsible for Radiological Security in the Nuclear Unit of the University of Pitești, National Commission for Nuclear Activities Control Level II exercise permit.
- 2008-2011, CCMA supported, together with the University of Craiova, the organization of the national conference with international participation "**PROGRESSES IN CRIOGENY AND SEPARATION OF IZOTOPESES**", organized by the National Research-Development Institute for Cryogenic and Isotopic Technologies ICSI-Rm. Vâlcea;
- 2008-2011, CCMA organized the EDEN I,II,III Workshop with international participation, "**EXPLORATORY DOMAINS OF ECONOPHYSICS**" and published the online magazine "**Research Center for Advanced Materials and Econophysics Journal**";
- 2015, director of the infrastructure development project "Regional Research & Development Center for Materials, Processes and Innovative Products for the Automotive Industry / CRC&D-Auto", POS CCE A2 O 2.2.1, ID 1947 / SMIS 48763 (EUR 6.7 million);
- 2007-2014, we have established three research laboratories in the field of materials science: surface engineering lab., X-ray diffractometry, X-ray fluorescent spectrometry;
- 2015, we have established eight research laboratories within CRC&D-AUTO.
- *Research activities:* Coordination of national (22) and international research projects (1), publication of scientific papers.

1998 - 2000 University Assistant

University of Pitești

- *Teaching activities:* Theoretical physics, Solid state physics, Structural analysis.

1993 - 1998 Physicist, scientific researcher

Institute for Nuclear Research - Mioveni, Arges

- Solid state physics, eddy currents NDT, ultrasonic NDT, X-ray diffraction;
- 1993 - employed as a physicist, by competition, at the Institute of Nuclear Research - Pitești, within the Ultraacoustic Laboratory;
- 1996, certified as a scientific researcher;
- I have trained my skills in scientific documentation, teamwork and systematic and planned approach to applied scientific research activities. The main research and development program of the Ultraacoustics Laboratory was the realization of the "Non-destructive control equipment for fuel channels of CANDU 6 nuclear power plants".

EDUCATION AND PROFESSIONAL FORMATION

1987-1993 Licensed

University of Bucharest, Faculty of Physics, Bucharest, Romania

- Solid state physics

2002 - 2003 Postgraduate specialization studies

University of Bucharest, Faculty of Physics, Bucharest, Romania

- Use of radioactive isotopes

2003 - 2012 Phd

University of Bucharest, Faculty of Physics, Bucharest, Romania

- X-ray diffraction studies and complementary techniques of thin films and surface coatings with applications in advanced technologies

1997-2008 Improvement courses

- 1997 - "Materiaux I" refresher course, TEMPUS 5 PMUR programme (Dr. Claude Monty, European Material and Procedure Lab, Odeillo, France);
- 1998 - "Ingenierie de l'Environnement", TEMPUS program JEP 11243 (Prof. Jacques-Alain Petit, Lab. of Production Engineering and Materials Engineering, ENI Tarbes, France);
- 1999 - "Superconducting Materials and Special Magnetic Materials", PROGRAM TEMPUS JEP 11243 (Prof. Xavier Oradors I Berenguer, Institute of Material Science of Barcelona, CSIC, University Autonomme of Barcelona);
- 1999 - "Photovoltaic Electricity", program TEMPUS JEP 11243 (Prof. Eric Michel, Scientific and Technical Committee of Climate Industry -COSTIC);

- 2008 – Curs operator SPECTRO MIDEX M, Kleve, Germany, SPECTRO Analytical Instruments GmbH&Co. KG

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B2	B2	C1
Replace with name of language certificate. Enter level if known.					
French	A2	A2	A2	A2	A2
Replace with name of language certificate. Enter level if known.					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills
 Organisational / managerial skills
 Job-related skills

- good communication skills gained through my experience as project manager
- leadership (currently responsible for a team of 14 people)
- good skills in theoretical and experimental physics (more than 24 years of experience in physics and materials science research field)

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

Replace with name of ICT-certificate(s)

- good command of office suite (word processor, spread sheet, presentation software)
- good command of photo editing software gained as an amateur photographer

Other skills

- extraction technologies for plant extract (supercritical fluid extraction, microwave assisted extraction, ultrasonically assisted extraction, hydro-distillation)
- photography

ADDITIONAL INFORMATION

- Scientific publications
- **90** of which: **55** works published in ISI Web of Science indexed journals; **20** articles in journals and volumes of scientific events indexed in other international databases; **15** articles published in magazines and conference volumes with references (unindexed)
- Books published in the publishing house
- **1**
- Courses and guidance published in the publishing house
- **2**
- Recognition of scientific impact
- Influence score on the Research Gate platform: **RG Score 26. 82**
 - Factorul Hirsch: **h-index 10** (ISI web of science core collection)
 - Quotes: **388**
- Proiects research
- **30** research projects as a director or scientific officer of which: **29** national, **1** international.

- Entrepreneurship
- Unique associate of **GLOBAL RESEARCH SRL**, with research activity development and production of medical devices, and cosmetics.

Annexes

- List of scientific papers

PhD. Marian-Catalin DUCU