

Curriculum vitae



Informații personale

Nume, Prenume: **Buioca, Constantin Dan**
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E-mail(uri): buioca@upet.ro, dan_buioca@yahoo.com
Naționalitate: Română
Data nașterii: 27.12.1958
Sex: Masculin

Locul de muncă

Experiență profesională

Funcția sau postul ocupat: Conferențiar universitar
Activități și responsabilități principale: Titular curs Fizică pentru ingineri
Numele și adresa angajatorului: Universitatea din Petroșani
Tipul activității sau sectorul de activitate: Activități specializate științifice și tehnice

Educație și formare

Perioada: 1991-1999
Calificarea / diploma obținută: Doctor
Disciplinele principale studiate / competențe profesionale dobândite: Doctor în Fizică tehnică
Numele și tipul instituției de învățământ / furnizorului de formare: Universitatea Babeș-Bolyai Cluj-Napoca
Perioada: 1998
Calificarea / diploma obținută: Specialist
Disciplinele principale studiate / competențe profesionale dobândite: Specialist în risc minier și impactul activității miniere asupra mediului
Numele și tipul instituției de învățământ / furnizorului de formare: Ecole Nationale Supérieure des Techniques Industrielles et des Mines d'Alès, Franța
Perioada: 1978-1982
Calificarea / diploma obținută: Diplomă Fizician
Disciplinele principale studiate / competențe profesionale dobândite: Fizică
Numele și tipul instituției de învățământ / furnizorului de formare: Universitatea din Craiova, Facultatea de Științe ale naturii, Specializarea Fizică

Aptitudini și competențe personale

Limbi străine cunoscute
Autoevaluare
Nivel european (*)

Engleză

Franceza

Înțelegere				Vorbire				Scris	
Așculta		Citire		Participare la conversație		Discurs oral		Exprimare scrisă	
C1	Utilizator experimentat	C2	Utilizator experimentat	C2	Utilizator experimentat	C1	Utilizator experimentat	C1	Utilizator experimentat
C1	Utilizator experimentat	C2	Utilizator experimentat	C2	Utilizator experimentat	C1	Utilizator experimentat	C1	Utilizator experimentat

(*) [Nivelul Cadrului European Comun de Referință Pentru Limbi Străine](http://www.cadru-europa.eu)

Competențe și abilități profesionale

Fizica fluidelor magnetice, Fizica mediului, Fizica senzorilor și traductorilor, Modelarea și simularea fenomenelor fizice, Fizica didactică.

Competențe și aptitudini științifice
(lucrări semnificative)

Buioca, C.D., The design of physics e-labs for engineering students, **International Conference on Virtual Learning**, Timisoara, Romania, ICVL 2015, <http://c3.icvl.eu/2015/accepted-abstract-list>.

Buioca, C.D., Buioca, M., Physics e-labs, Lecture notes.

Buioca, C.D., Basic e-skills for physics class, Lecture notes..

Buioca, C.D., Physics for electro-mechanics engineering students, Lecture notes.

BUIOCA, C.D., Buioca, M., **e-Skills for Applied Sciences Labs**, **International Conference on Virtual Learning**, Bucuresti, Romania, ICVL 2013, <http://c3.icvl.eu/2013/accepted-abstract-list>.

BUIOCA, C.D., **Introduction to Physics for Engineering Students**, Lecture notes, Lectora e-learning files, University of Petrosani, Romania.

BUIOCA, C.D., **Introduction to MathCAD for Didactical Mathematics Students**, Lecture notes, Lectora e-learning files, University of Petrosani, Romania.

BUIOCA, C.D., **Physics e-labs based on real experiments: a practical guide**, **International Conference on Virtual Learning**, Cluj-Napoca, Romania, ICVL 2011, <http://c3.icvl.eu/2011/accepted-abstract-list>.

BUIOCA, C.D., **Physics for Mechanical Engineering Students**, video- lecture notes.

BUIOCA, C.D., **Physics Labs for Mechanical Engineering Students**, video- labs tutorials.

BUIOCA, C.D., **Microscopic Analysis of out-door Dust Sedimented in the „Iceland Volcano Week”**, Proceedings of Int. Conf. CONFERENG 2010, Univ. "Constantin Brancusi" Tg. Jiu, Romania, Annals of the "Constantin Brancusi" University of Tg. Jiu, Eng. Series, No.2/2010, pp. 398-405

BUIOCA, C.D., Buioca, M., **Physics Status in Roumanian High Schools**, Proceedings of International Symposium UNIVERSITRIA SIMPRO 2010, Petrosani, Romania, Vol. Mathematics – Informatics and Physics, pp. 19-24.

BUIOCA, C.D., **Modeling and Simulation of one-dimensional accelerated moving objects with MathCAD**, Proceedings of International Symposium UNIVERSITRIA SIMPRO 2010, Petrosani, Romania, Vol. Mathematics – Informatics and Physics, pp. 25-30,

BUIOCA, C.D., **Increasing Measurements Accuracy in Mechanical Experiments by Using MathCAD Data Interpolation**, Annals of University of Petrosani, Mechanical Engineering Series, 2010.

BUIOCA, C.D., **Modelling and simulation of physical phenomena with MathCAD**, Vol. I, **Mechanical phenomena**, Universitas Publ. House, Petrosani, Romania, 2010

BUIOCA, C.D., **PhysCAMP, a Computer Aided Modeling Platform for Physics**, Proceedings of International Conference ELSE2009, pp. 289 – 296, Bucharest, Romania, 2009.

BUIOCA, C.D., **Interpolation of experimental data with MathCAD**, Proceedings of Int. Conf. Univ. "Constantin Brancusi" Tg. Jiu, Romania, 2009, Annals of the "Constantin Brancusi" University of Tg. Jiu, Eng. Series, No.2/2009, pp.97-106.

BUIOCA, C.D., **"Real-like" lab on-line – basic principles and case study for light refraction**, Proceedings of Int. Conf. Univ. "Constantin Brancusi" Tg. Jiu, Romania2009, Annals of the "Constantin Brancusi" University of Tg. Jiu, Eng. Series, No.2/2009, pp.107-116.

BUIOCA, C.D., **Interpolation with MathCAD: a method to find physical laws from experimental data**, Proceedings of Int. Conf. TIM09, pp. 81-82, Timisoara, 2009.

C.D. BUIOCA, **Effects of Ultracentrifugation, HGMS and Exchange of Liquid Matrix on Ferrofluids Properties**, Proceedings of International Symposium SIMPRO 2008, Petrosani, Romania, Vol. Mathematics – Informatics and Physics, pp. 65-66.

C.D. BUIOCA, **On Ferrofluids Properties Control by Physical Methods**, Proceedings of 11th International Conference on Electrorheological Fluids and Magnetorheological Suspensions, ERMR08, Dresden 25-29 Aug., Germany, pp. 126.

C.D. BUIOCA, **On Computer Aided Design of Gravitational Sedimentation Chambers**, Proceedings of International Multidisciplinary Conference, Constantin Brancusi University, Tg. Jiu, Romania, 2008, Annals of "Constantin Brancusi" University of Tg. Jiu, No. 2 (2008), pp. 445-450

C.D. BUIOCA, S. NOAGHI, V. IUSAN, M. BUIOCA, A. STANCI, **Nano- and Microparticles characterization using Brownian Diffusion Measurements**, , Journal of Magnetism and Magnetic Materials, Volume 272, p. E1063-E1065, 2004.

V. IUSAN, C.D. BUIOCA, A. STANCI, **Magnetofluidic Effects usable for Sensors Achievement**, Journal of Magnetism and Magnetic Materials, 272, pp. 2367-2369, 2004.

C.D. BUIOCA, **Applications of magnetic fluids to electric currents sensing**, Proceedings of The 29th Annual Congress of the American Romanian Academy of Arts and Sciences (ARA), 7-12, Bochum, Germany, 2004.

V. IUSAN, I. STOICOIU, S. HADGIA, C.D. BUIOCA, A. STANCI **About production and quality improvement of magnetic fluids obtained in our laboratory**, , Proceedings of the International Symposium UNIVERSITARIA ROPET 2004, Petrosani, Romania, Vol. Mathematics, Informatics and Physics (2004) 87-92.

A. STANCI, C.D. BUIOCA, V. IUSAN, **Magnetofluidic transducer for position determination of extraction machines**, Proceedings of the International Symposium UNIVERSITARIA ROPET 2004, Petrosani, Romania, Vol. Mathematics, Informatics and Physics (2004) 93-94.

C.D. BUIOCA **The design of electro-mechanical actuators using ferrofluids**, , Proceedings of the International Symposium UNIVERSITARIA ROPET 2004, Petrosani, Romania, Vol. Mathematics, Informatics and Physics (2004) 101-102.

C.D. BUIOCA, **Solving Physical Equations with MathCAD**, , Annals of University of Petrosani, Physics, Vol. 6, 2004, 149-156.

V. IUSAN, C.D. BUIOCA, A. STANCI, **Magnetofluidic sensors for pressure measurements**, Annals of University of Petrosani, Physics, Vol. 6, 2004, 95-98.

A. STANCI, C.D. BUIOCA, V. IUSAN, **Magnetofluidic sensors for limitation of pressure**, Annals of University of Petrosani, Physics, Vol. 6, 2004, 23-68.

V. IUSAN, C.D. BUIOCA, A. STANCI, **INTRODUCTION TO THEORETICAL MECHANICS**, DIDACTICAL AND PEDAGOGICAL Publ. House, Bucharest, 2004.

C.D. BUIOCA, **NOISES AND SOUND POLLUTION**, , Publ. House UNIVERSITAS , 2004.

IUSAN, V., STANCI, A., BUIOCA, C.D. **Magnetofluidic Sensors for Measurement of Force, Impulse, Mass and Density**, Annals of University of Petrosani, Physics, Vol. 5, 45-54, 2003.

STANCI, A., IUSAN, V., BUIOCA, C.D., **Capacity Sensor for Mass Measurement**, Annals of University of Petrosani, Physics, Vol. 5, 55-58, 2003.

BUIOCA, C.D., IUSAN, V., STANCI, A., **An example of Computational Physics for Magnetic Fluids**, Annals of University of Petrosani, Physics, Vol. 5, 121-126, 2003.

V. IUSAN, A. STANCI, C.D. BUIOCA, **About Continuity Equation in Classical and Quantum Physics**, Proceedings of the International Symposium UNIVERSITARIA ROPET 2003, Petrosani, Romania, Vol. Mathematics, Informatics and Physics (2003) 131-134.

A. STANCI, C.D. BUIOCA, V. IUSAN, **Physical Sensor for Measurement of Pressure**, Proceedings of the International Symposium UNIVERSITARIA ROPET 2003, Petrosani, Romania, Vol. Mathematics, Informatics and Physics (2003) 135-136.

C.D. BUIOCA, V. IUSAN, A. STANCI, **A new Type Electric Motor with Magnetic Fluid**, Proceedings of the International Symposium UNIVERSITARIA ROPET 2003, Petrosani, Romania, Vol. Mathematics, Informatics and Physics (2003) 137-139.

V. IUSAN, N. ILIAS, A. SERAFINCEANU, C.D. BUIOCA, A. STANCI, **Magnetofluidic Sensor Based on Magnetic Trap**, International Conference on Magnetism, Rome, Italy, 765, 2003.

C.D. BUIOCA, V. IUSAN, A. STANCI, C. PETRESCU, M. BUIOCA, **Toroidal Electric Motor with Magnetic Fluid**, International Conference on Magnetism, Rome, Italy, 757, 2003.

C.D. BUIOCA, C. ZOLLER, **The Improvement of Electromagnetic Actuators using Magnetic Fluids**, International

Conference on Magnetism, Rome, Italy, 533, 2003.
C.D. BUIOCA, AIR DEPOLUTION, Publ. House Edyro Press, 2003.
C.D. BUIOCA, PROCESSING OF EXPERIMENTAL DATA, Publ. House Edyro Press, 2003.
C.D. BUIOCA, A. STANCI, V. IUSAN, C. ZOLER, Computer Aided Design of a New Type Magnetofluidic Actuator, Journal of Magnetism and Magnetic Materials 252, pp 318-320 (2002)
L.M. POP, C.D. BUIOCA, V. IUSAN, M. ZIMNICARU, Long Term Stability of Magnetic Fluids in Low Gradient Magnetic Fields, Journal of Magnetism and Magnetic Materials 252, pp 46-48 (2002)
C.D. BUIOCA, A. STANCI, V. IUSAN, R. PARLEA, Nondistructive Testing of Rock Cutting Knives using Magnetic Fluids, Annals of University of Petrosani, Physics, Vol. 4 (2002) 33-28.
A. STANCI, V. IUSAN, C.D. BUIOCA, Magnetofluidic Sensors for Reception of Information about Acceleration and Characteristics of Vibrations, Annals of University of Petrosani, Physics, Vol. 4 (2002) 39-50.
A. STANCI, C.D. BUIOCA, V. IUSAN, Magnetofluidic Sensor with Cylindrical Coil for Mechanical Vibrations Measurement, Annals of University of Petrosani, Physics, Vol. 4 (2002) 51-56.
V. IUSAN, A. STANCI, C.D. BUIOCA, About Quantum Particles and Associate waves, Proceedings of the International Symposium UNIVERSITARIA ROPET 2002, Petrosani, Romania, Vol. Mathematics and Physics (2002) 77-80.
A. STANCI, V. IUSAN, C.D. BUIOCA, Physical Sensor for volume measurement, Proceedings of the International Symposium UNIVERSITARIA ROPET 2002, Petrosani, Romania, Vol. Mathematics and Physics (2002) 83-86.
C.D. BUIOCA, A. STANCI, V. IUSAN, Magnetic Fluids Viscosity Measurements for Clusters Revealing, Proceedings of the International Symposium UNIVERSITARIA ROPET 2002, Petrosani, Romania, Vol. Mathematics and Physics (2002) 87-90.
C.D. BUIOCA, V. IUSAN, A. STANCI, Computer Aided Design of a High Electric Current Magnetofluidic Sensor, Sensors and Actuators A 94 (2001) 161-164.
A. STANCI, V. IUSAN, C.D. BUIOCA, Some Magnetofluidic Sensors for Reception of Mechanical Information, Annals of University of Petrosani, Physics, Vol. 3 (2001) 65-78.
C.D. BUIOCA, V. IUSAN, A. STANCI, Determination of Hydrodynamic Particle Dimension in Magnetic Fluids, Annals of University of Petrosani, Physics, Vol. 3 (2001) 79-86.
C.D. BUIOCA, V. IUSAN, A. STANCI, On the Mean Spherical Model in Magnetic Fluids, Proceedings of the International Symposium UNIVERSITARIA ROPET 2001, Petrosani, Romania, Vol. Mathematics and Physics (2001) 129-132.
V. IUSAN, C.D. BUIOCA, A. STANCI, From classical to quantum phenomena in mechanics, Proceedings of the International Symposium UNIVERSITARIA ROPET 2001, Petrosani, Romania, Vol. Mathematics and Physics (2001) 99-102.
A. STANCI, V. IUSAN, C.D. BUIOCA, Magnetofluidic Sensor for Density of the Liquids Proceedings of the International Symposium UNIVERSITARIA ROPET 2001, Petrosani, Romania, Vol. Mathematics and Physics (2001) 103-104.
C.D. BUIOCA, V. IUSAN, L. POP, Long Time Magnetization Curves of Magnetic Fluids in Constant Magnetic Fields, Annals of University of Petrosani, Physics, Vol. 2 (2000) 43-48.
C.D. BUIOCA, V. IUSAN, S. HADGIA, A. STANCI, Magnetofluidic Device for Mercury Recover from Residual Industrial Water, Annals of University of Petrosani, Physics, Vol. 2 (2000) 49-52.
S. HADGIA, C.D. BUIOCA, E. TRAISTA, Coal Desulfuration by Magnetic Methods, Annals of University of Petrosani, Physics, Vol. 2 (2000) 75-78.
V. IUSAN, A. STANCI, C.D. BUIOCA, L. POP, Magnetofluidic sensors, Proceedings of the International Symposium UNIVERSITARIA ROPET 2000, Petrosani, Romania, Vol. Exact Sciences (2000) 59-62.
C.D. BUIOCA, V. IUSAN, A. STANCI, L. POP, Vibrating viscometer for the study of colloidal systems, Proceedings of the International Symposium UNIVERSITARIA ROPET 2000, Petrosani, Romania, Vol. Exact Sciences (2000) 67-70.
V. IUSAN, C.D. BUIOCA, S. HADGIA, Magnetic fluids of low viscosity, Journal of Magnetism and Magnetic Materials 201 (1999) 38-40.
C.D. BUIOCA, Physical Methods in Air Depollution, Annals of University of Petrosani, Physics, Vol. 1 (1999) 65-68.
V. IUSAN, C.D. BUIOCA, Trends in Magnetic Fluids Physics and Applications, Annals of University of Petrosani, Physics, Vol. 1 (1999) 117-124.
C.D. BUIOCA, L. POP, On the Magnetic Susceptibility of the Magnetic Fluids, Annals of University of Petrosani, Physics, Vol. 1 (1999) 131-136.
V. IUSAN, C.D. BUIOCA, C. COTAE, O. LEAHU, A New Method for the Determination of the Particles Hydrodynamic Dimension in Magnetic Fluids, EUROMAT99, Munchen, Germany, 1999.
C.D. BUIOCA, S. HADGIA, L. POP, A. STANCI, PHYSICAL MECHANICS AND ACOUSTICS – LABORATORY WORKS, Publ. House UNIVERSITAS, 1999.
C.D. BUIOCA, MAGNETIC AND RHEOLOGIC PROPERTIES OF MAGNETIC FLUIDS, Publ. House UNIVERSITAS, 1999.
S. HADGIA, V. IUSAN, C.D. BUIOCA, About nonmagnetic particles trajectory through a magnetofluidic spectrometer characterized by an izodynamic magnetic field, Magnitaia Gidrodinamica, 33, 4 (1997) 435-437.
V. IUSAN, C.D. BUIOCA, Exchange of liquid matrix in magnetic fluids by HGMS, Romanian Reports in Physics, Vol. 47, Numbers 3-5 (1995) 281.
V. IUSAN, S. HADGIA, C.D. BUIOCA, I. STOICOIU, A. STANCI, Installation for non-metallic minerals purifying, Mines, Petrol, Gases, No. 2, Vol. 51 (1995) 40 (in Romanian).
V. IUSAN, C.D. BUIOCA, A new method to obtain magnetic fluids with high conversion parameter of magnetic properties, Abstracts of European Magnetic Materials and Applications, EMMA'95, Vienna, Austria (1995) 327.
C.D. BUIOCA, V.Z.IUSAN, Influence of centrifugation and HGMS on conversion parameter in magnetic fluids, IEEE Trans. Mag., Vol. 30, No. 2, part II (1994) 1095-1097.

Competențe și aptitudini de utilizare a Windows; MS Office; MathCAD; Lectora; Prelucrare și analiză sunet, imagine, video.
calculatorului

Petrosani, 01 Octombrie. 2017

Conf. Univ Dr. Constantin Dan BUIOCA