

Curriculum Vitae

Personal information

First name(s) / Surname(s) Laura Letitia Darabant (Cret)
 Telephone(s) 0264-401462
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Nationality Romanian

Date of birth 20.09.1976

Work experience

Dates February 2000 onward
 Name and address of employer Technical University of Cluj-Napoca, Romania, www.utcluj.ro
 Faculty of Electrical Engineering, www.ie.utcluj.ro
 Occupation or position held Associated professor (from 2008)
 Main activities and responsibilities Teaching and research in Electrical Engineering (from 2000)

Education and training

Dates 1. 2000-2007
 2. 1999-2000
 3. 1994-1999

Title of qualification awarded 1. PhD
 2. Master degree
 3. Engineer

Principal subjects/occupational skills 1. Biomedical Engineering; PhD Thesis: „Remarks on the study and optimization of the technique of magnetic stimulation of the nervous system”
 2. Computer Aided Design;
 3. General Electrotechnics , Electrical measurements

Name and type of organisation providing education and training 1. – 3. Technical University of Cluj-Napoca

Personal skills and competences

Mother tongue(s) Romanian

Other language(s)

Self-assessment

European level (*)

English

French

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
B2	B2	B2	B2	B2
B2	B2	B2	B2	B2

B2 = intermediar plus (upper intermediate)

Didactic activity

Teaching Courses Electrotechnics – First year, Computer science (En) – Course and Laboratory,
Numerical Modeling of Electrical Circuits – Fourth year, General electrotechnics - Course and
Laboratory

Training Mobility University of Gent, Belgium (1998)
Catholic University of Leuven, Belgium (1999)
University of Jyvaskyla, Finland (2006)
Medical University of Vienna, Austria (2006, 2007, 2008, 2009, 2010)

Institutional Projects
(max 5 the most representative)

Research

National Grants (max 5 the most representative)

1. Grant manager: Laura DARABANT. Grant CNCSIS type Pd, „*Theoretical And Experimental Research Regarding Magnetic Stimulation Of The Spinal Cord*”, Contract no. 179/09.08.2010, PD_611/2010;
2. Grant manager: Laura CRET. CNCSIS Grant type Td, „*3D Software for the simulation of the electromagnetic stimulation of nerve fibers*”, Contract no. 33385/2004, CNCSIS Code 216;
3. Grant member: Laura CRET. PN2 Idei ID_1024, Contract no. 344/2007, „*Mathematical Model For Investigating The Influence Of Ac Electromagnetic Pollution On Underground Metallic Gas Pipelines, With And Without Cathodic Protection, Placed Nearby A High Voltage Substation*”, Director: Prof. dr. ing. Emil Simion;
4. Grant member: Laura CRET. PN2 Idei ID_1078 grant, Contract no. 342/2007, „*Neural Magnetic Stimulation: Research Concerning the Improvement of the Electrical Equipment Performances and Clinical Efficiency in Diagnostic and Treatment*”, Director: Prof. dr. ing. Radu CIUPA, Funding period: 2007-2010;
5. Grant member: Laura DARABANT. PARTNERSHIP Grant nr. 22122 from 01.10.2008, „*Intelligent prediction and diagnosis system, for preventing faults on energy cables*”, Director: dr. ing. Carmen Ligvay.

International Grants (max 5 the most representative)

Grant member: Laura DARABANT, Bilateral Romania-France grant, no. 14914RL/2006 Reconfigurable systems for biomedical applications, Director: Octavian Augustin Creț, , Funding period: 2006-2007

Grant member: Laura DARABANT, Bilateral Romania-Austria grant, no. 224/2009, „*Functional Stimulation of the Spinal Cord*”, Director: Prof. dr. ing. Radu CIUPA, Funding period: 2009-2010,

Scientific publications 4 books, 95 papers

Additional information

Awards [1] **2008** - 2nd Prize for Research Projects - Development in priority area: Informational Social Technologies - CEEEx No. 136/2006: Intelligent and active diagnosis and prediction of buildings with resistance structure in a complex polluted environment - DIRECTOR, accorded by the National Authority of Scientific Research ANCS.
http://www.mct.ro/img/files_up/1224076311lista-premii-cercetatori-2008.doc
[2] Award for research results (ISI papers), awarded by UEFISCSU
Laura DARABANT, Mihaela PLESA, Dan Doru MICU, Denisa STET, Radu CIUPA, Adrian DARABANT, *Energy Efficient Coils for Magnetic Stimulation of Peripheral Nerves*, IEEE Transactions on Magnetics, vol. 45, no. 3, 2009, pp. 1690-1693

Membership of Professional Societies AGIR
Other relevant activities

**Significant books published
in the last 10 years (max 10)**

- [1] Rodica CREȚ, R. MICU, **Laura CREȚ**, *Tehnica tensiunilor înalte - îndrumător de laborator*, Lito UTC-N, Cluj-Napoca, 2000, 113 pagini.
- [2] Dan Doru Micu, **Laura CRET**, Denisa DUMA, *Teoria circuitelor electrice, Culegere de probleme*, 328 pagini, U.T.Press Cluj-Napoca, 2005, ISBN 973-662-184-7, 310 exemplare.
- [3] **Laura CRET**, *Electrotehnică, Aplicații ale câmpului electromagnetic în medicină*, Editura Casa cartii de stiinta, Cluj-Napoca, 2008, ISBN 978-973-133-267-3, 235 pagini.
- [4] Rodica CREȚ, **Laura DARABANT**, Antoniu TURCU, *Dielectrici și materiale magnetice*, Editura Mediamira, Cluj-Napoca, 2008, ISBN 978-973-713-204-8, 274 pagini.

**Significant papers published
in the last 10 years (max 10)**

- [1] Rodica CRET, **Laura CRET**, *Numerical Computation of Dielectric Permittivity of Mixtures*, Journal of Optoelectronics and Advanced Materials, vol. 6, nr. 3, 2004, pg 1045-1048, ISSN: 1454-4164;
- [2] Octavian CRET, Ionut TRESTIAN, Florent DE DINECHIN, **Laura DARABANT**, Radu TUDORAN, Lucia VACARIU, *Accelerating The Computation of The Physical Parameters Involved in Transcranial Magnetic Stimulation Using FPGA Devices*, Romanian Journal of Information Science and Technology, Volume 10, Number 4, 2007, pg. 361-379;
- [3] **Laura DARABANT**, Mihaela PLESA, Dan Doru MICU, Denisa STET, Radu CIUPA, Adrian DARABANT, *Energy Efficient Coils for Magnetic Stimulation of Peripheral Nerves*, IEEE Transactions on Magnetics, vol. 45, nr. 3, 2009, pp. 1690-1693;
- [4] Dan Doru Micu, Iosif Lingvay, Carmen Lingvay, **Laura CRET**, Emil Simion, *Numerical evaluation of induced voltages in the metallic underground pipelines*, Revue Roumaine d'Electrotechnique, 2009, vol.54, nr.3, pg. 175-184;
- [5] Radu CIUPA, **Laura DARABANT**, Mihaela PLESA, Octavian CRET, Dan D. MICU, *Design Of Efficient Magnetic Coils For Repetitive Stimulation*, Revue Roumaine d'Electrotechnique, 2010, vol.55, nr.3, pg. 251-260;
- [6] Rodica Creț, **Laura Darabant**, Dan D. Micu, Mihaela Pleșa, Antoniu Turcu, Denisa Stet, *Study of the factors that influence the effective permittivity of the dielectric mixtures*, Revue Roumaine d'Electrotechnique,, 2011, vol 56, nr. 1, pg. 69-78;
- [7] **Dărăbant Laura**, Crețu Mihaela, Ciupa R. V., Micu D. D., Șteț Denisa, *Assessment of the Electric Field Induced in the Human Tissue during Magnetic Stimulation of the Spinal Cord*, COMPEL, 2012, vol. 31, nr. 4, pg. 1164-1172;
- [8] Stet Denisa, Dan D. Micu, Levente Czumbil, **Laura Darabant**, Andrei Ceclan, *Simulation of interferences between power lines and gas pipelines in unbalanced phase currents state*, COMPEL, 2012, vol. 31, nr. 4, pg. 1178-1189;
- [9] **Laura Darabant**, Mihaela Cretu, Adrian Darabant, *Magnetic Stimulation of the Spinal Cord: Experimental Results and Simulations*, IEEE Transactions on Magnetics, vol. 49, nr.5, 2013, pp. 1845-1848;
- [10] Mihaela Cretu, Radu V. Ciupa, **Laura Darabant**, *Evaluation of Spinal Cord Response During Magnetic Stimulation of the Lumbar Area*, Biomedical Engineering Journal online

Cluj-Napoca,

Name: **Laura Letiția Dărăbant**



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