





INFORMAȚII PERSONALE

	Dan Doru MICU
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	 https://entrec.utcluj.ro/docs/main_core/Micu%20Dan/LL_Micu_Dan.pdf https://www.researchgate.net/profile/Dan_Micu2 https://www.linkedin.com/in/dan-doru-micu-27b8a3210/
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EDUCAȚIE ȘI FORMARE

2014	Abilitare – Conducere Doctorat în Inginerie Electrică - Universitatea Tehnică din Cluj-Napoca Teza de abilitare: <i>Development of advanced analysis methods and numerical modeling dedicated tools applied in electrical engineering</i>
2004	Doctorat – Inginerie Electrică - Universitatea Tehnică din Cluj-Napoca Teza de doctorat: <i>Studiul influenței liniilor de înaltă tensiune asupra conductelor tehnologice din sol</i>
2003	Licență - Matematică - (media 9.52) – Universitatea Babeș-Bolyai, Cluj-Napoca Competențe: <i>Analiză numerică; Modelare matematică; Statistică matematică</i>
1999	Studii aprofundate - Managementul Energiei - (media 10) - Universitatea Tehnică din C-N Competențe: <i>Modelarea rețelelor; Eficiență energetică; Surse regenerabile; Inteligență artificială</i>
1998	Licență - Energetica Industrială - (media 9,92) - Universitatea Tehnică din Cluj-Napoca Competențe: <i>Rețele electrice; Producerea/Transportul/Utilizarea energiei; Calitatea energiei</i>

EXPERIENȚA PROFESIONALĂ

2015-prez.	Profesor universitar - Universitatea Tehnică din Cluj-Napoca , Facultatea de Inginerie Electrică <i>Cursuri predate: Metode Numerice, Complemente de Matematici, Electromagnetics (eng.); Clădiri Verzi; Cercetare: Director - Energy Transition Research Center: entrec.utcluj.ro</i>
Mar. 2023– Iun. 2023	Profesor – Beijing Jiaotong University , International School of Renewable Energy, Beijing, China <i>Curs predat: Electromagnetics; Cercetare: Renewable Energy, Energy Efficiency</i>
Aug.2022– Dec.2022	Fulbright Fellow – University of Florida , Electrical and Computer Engineering, Gainesville, USA <i>Curs predat: Electromagnetic Fields; Cercetare: Lightning protection</i>
Mar. 2022– Iun. 2022	Profesor – Beijing Jiaotong University , International School of Renewable Energy, Beijing, China <i>Cursuri predate: Electromagnetics; Photovoltaic Technologies</i>
Mar. 2021– Iun. 2021	Profesor – Beijing Jiaotong University , International School of Renewable Energy, Beijing, China <i>Cursuri predate: Electromagnetics; Photovoltaic Technologies</i>
Mar. 2020– Iun. 2020	Profesor – Beijing Jiaotong University , International School of Renewable Energy, Beijing, China <i>Cursuri predate: Electromagnetics; Photovoltaic Technologies</i>
Mar. 2019– Iun. 2019	Profesor – Beijing Jiatong University , International School of Renewable Energy, Beijing, China <i>Cursuri predate: Electromagnetics; Photovoltaic Technologies; Cercetare: Energy Efficiency</i>

Sep.2017- Feb.2018	Fulbright Fellow – University of Florida , Electrical and Computer Engineering, Gainesville, USA <i>Cursuri predate: Electromagnetic fields; Lightning fundamentals; Applied Numerical Methods</i>
2007-2015	Conferențiar - Universitatea Tehnică din Cluj-Napoca , Facultatea de Inginerie Electrică <i>Cursuri predate: Metode Numerice, Complemente de Matematici, Electromagnetics (eng.)</i>
2006-2010 (part time)	Expert - Agentia Manageriala de Cercetare Științifică, Inovare și Transfer Tehnologic - AMCSIT Politehnica București - Ministerul Educației și Cercetării
2004-2007	Șef de Lucrări - Universitatea Tehnică din Cluj-Napoca , Facultatea de Inginerie Electrică <i>Curs/Lab: Metode Numerice; Seminar: Managementul Energiei; Calitatea Energiei; Utilizarea energiei</i>
1999-2004	Asistent - Universitatea Tehnică din Cluj-Napoca , Facultatea de Inginerie Electrică <i>Laboratoare/Seminarii: Managementul energiei; Rețele Electrice, Compatibilitate Electromagnetică</i>
Feb-Jun 2000 -2002	Stagii Doctorat - Vrije Universiteit Brussels , Electrical and Computer Engineering, Belgia <i>Titlu teză: Electromagnetic interference between high voltage power lines and metallic pipelines</i>

EXPERIENȚA ÎN CERCETARE

Director - 8 contracte de cercetare științifică obținute prin competiție internațională	
2023- 2027	Smart Grid-Efficient Interactive Buildings, 101123238/2023– EVELIXIA, HORIZON-CL5-2022-D4-02, Total budget: 8.189.865 EUR; TUCN budget: 360.437 EUR, https://build-up.ec.europa.eu/en/resources-and-tools/links/evelixia-project
2021- 2026	Holistic Green Airport, 101036871 – OLGA, HORIZON: H2020-LC-GD-5-1-2020, Total budget: 25.364.993 EUR; TUCN budget: 758.437 EUR, www.olga-project.eu
2019- 2022	Renewable Cogeneration and Storage Technologies Integration for energy Autonomous Buildings 815301-RE-COGNITION, HORIZON: H2020-LC-SC3-2018-2019-2020/H2020-LC-SC3-2018-RESTwoStages, Total budget: 4.990.000 EUR; TUCN budget: 221.250 EUR, https://re-cognition-project.eu/
2019- 2022	A holistic framework for Empowering SME's capacity to increase their energy efficiency, 847132-SMEmPower Efficiency, HORIZON: H2020-LC-SC3-2018-2019-2020/H2020-LC-SC3-EE-2018, Total budget: 1.998.750 EUR, TUCN budget: 171.875 EUR, https://smempower.com/
2020- 2022	Generate energy efficient acting and Results at small & medium enterprises, 894356–GEAR@SME, HORIZON: H2020-LC-SC3-2018-2019-2020 / H2020-LC-SC3-EE-2019, Total budget: 1.993.227 EUR; TUCN budget: 56.593 EUR, https://www.gearatsme.eu/
2016- 2019	Demand Response in Blocks of Buildings, 696114 - DR-BOB, HORIZON: H2020-EE-2014-2015/H2020-EE-2015-2-RIA, Total budget: 4.274.499 EUR, TUCN budget: 241.687 EUR https://cordis.europa.eu/project/id/696114
2015- 2017	Meeting the energy professional skills, 649773-MENs, HORIZON: H2020-EE-2014-CSA, Total budget: 1.478.160 EUR; TUCN budget: 55.842 EUR, https://cordis.europa.eu/project/id/649773
2016- 2017	Enhancing the Transfer of Research and Development Methods in Energy-related Clusters from Norway to Romania, 28.407/26.05.2017 SEE-MarketUptake, EEA and Norway grants
Director - 7 contracte de cercetare obținute prin competiție națională (selecție)	
2004- 2006	CNCSIS AT_224: Optimizarea construcției unor dispozitive electromagnetice pe baza sintezei de câmp electromagnetic în medii neomogene inaccesibile

2006-2008	CEEX, nr. X2C37/2006: Impactul câmpurilor electromagnetice de natură antropică asupra ecosistemelor – ICEMECOS
2010-2013	CNCSIS TE 34/09.08.2010: Soluții de modelare, predicție și proiectare, cu maxim de performanță, pentru reducerea impactului curenților de dispersie asupra conductelor metalice subterane de transport gaz
2020-2021	PN-III-P3-3.6-H2020-2020-0121; Contract nr. 44/2021: Pachet integrat de surse regenerabile pentru clădiri autonome
2020-2021	PN-III-P3-3.6-H2020-2020-0121; Contract nr. 42/2021: Cadru holistic pentru creșterea eficienței energetice în IMM-uri
Membru - 10 contracte de cercetare obținute prin competiție internațională (selecție)	
2023-2026	Renewable Energy-based Positive Homes - RENplusHOMES, HORIZON-CL5-2022-D4-01-02, Total budget: 5.999.987 EUR, TUCN budget: 463.187 EUR, https://renplushomes.eu/
2022-2025	Energy Transition audits towards decarbonization, 101076424/2022 – EnTRAINER, HORIZON: LIFE-2021-CET-AUDITS, Total budget: 1.842.112 EUR, TUCN budget: 283.179 EUR https://entrainer-project.eu/
2021-2023	Sun coupled innovative Heat pumps - SUNHorizon, HORIZON: H2020-LC-SC3-2018-RES, Total budget: 8.999.815 EUR, TUCN budget: 145.268 EUR, https://sunhorizon-project.eu/
2021-2023	Design and development of an Energy Efficiency Management and Control System with cost-effective solutions for residential and educational buildings –332783 DOITSMARTER EEA and Norway grants, Total budget: 542.400 EUR, TUCN budget: 167.000 EUR https://entrec.utcluj.ro/doitsmarter/
2022-2023	Empowering energy efficiency awareness through a holistic educational approach – 346660 ENERGEIA, EEA and Norway grants, Total budget: 199.987 EUR, TUCN budget: 140.000 EUR, https://www.linkedin.com/company/energeia-project-2023/
2022-2023	Supporting increased knowledge on renewable energy and energy efficiency in Alba Iulia–346649 – GREENER, RO-ENERGY-0146, EEA and Norway grants, Total budget: 210.196 EUR, TUCN budget: 38.000 EUR, https://eeagrants.org/archive/2014-2021/projects/RO-ENERGY-0146
2024-2026	Fostering the implementation of shallow geothermal hybrid heating and cooling systems in the Danube Region - Danube GeoHeCo, Interreg Danube Region Programme, Total budget: 2.462.500 EUR, TUCN budget: 334.734 EUR
2024-2026	Building Local Partnership for reducing the fossil energy demand of district heating systems in Eastern Danube Region – REHEATEAST, Interreg Danube Region Programme, Total budget: 2.214.691 EUR, TUCN budget: 163.193 EUR

Total: 18 – Proiecte Internaționale (Director de proiect – 8 Horizon Projects)

Buget total proiecte internaționale: (peste 60 mil Euro)

Buget total pentru UTCN proiecte internaționale: (peste 6 mil Euro)

Total: 16 – Proiecte de cercetare nationale (Director de proiect - 7)

> 20 - Proiecte cu mediul economic

ALTE EXPERIENȚE PROFESIONALE RELEVANTE

2023	Co-fondator - <i>Energy Advisor Start-up</i> - https://renergia.ro/
2021-prez.	Membru – „ <i>Colegiul Consultativ pentru Cercetare Dezvoltare si Inovare</i> ” - MCID
2020-prez.	Ofițer Științific – „ <i>Comisia de Științe Inginerești a Consiliului Național al Cercetării Științifice</i> ” - CNCS
2020-prez.	Președinte – <i>Comisia de Cercetare</i> – Senat UTCN
2020-prez.	Expert cercetare științifică – “ <i>CeS - UTCN - Excelenta Științifică și Specializare Inteligentă prin crearea unui Centru Suport dedicat facilitării accesului entităților publice și private la proiecte/competiții CDI</i> ”
2019	General Chairman - <i>European EMTP-ATP Conference</i> , 23-25 Sept. 2019
2019	Co-Chairman - <i>54th Universities Power Engineering Conference</i> –1-4 Sep. 2019
2014-2017	Asistent Manager – <i>Parteneriat interuniversitar pentru excelenta in inginerie</i>
2012-prez.	Membru - <i>Consiliul Cercetării Științifice</i> – Universitatea Tehnică din Cluj-Napoca
2014	General Chairman - <i>49th Universities Power Engineering Conference</i> –2-5 Sep. 2014
2010-prez.	Director - <i>Energy Transition Research Center</i> – <i>EnTReC (entrec.utcluj.ro)</i>
2010-prez.	Membru - <i>International Steering Committees</i> (UPEC, EMES, EHE, MedPower, Synergymed, ICATE, MPS)
2000-prez.	Recenzor: <i>International ISI Journals</i> (Electric Power System Research, IET Renewable Power Generation, Renewable Energy, Electronics, CSEE Journal of Power and Energy Systems, International Transaction on Electrical Energy Systems, IET Generation, Transmission & Distribution, COMPEL, Journal of Engineering, RRST, IEEE Transaction on EMC, Energies, Sustainability, IEEE Transactions on Intelligent Transportation System, Inverse Problems in Science & Engineering, IET Science, Measurement & Technology)
2008-2020	Membru – <i>Consiliul Facultății de Inginerie Electrică</i> – Universitatea Tehnică din Cluj
2006-2010	Expert științific - <i>RDI Project Manager - Program INOVARE</i> – AMCSIT-Bucuresti
2000-pres.	Membru: <i>IEEE, AGIR, IRE, USE-Efficiency, CREESC, TREC, EMTP</i>
	Membru în comisii de doctorat: (12 internaționale; 14 naționale)
	Coordonator Erasmus (21 acorduri)
	<p>Premii</p> <ol style="list-style-type: none"> <i>Best European Energy Service Project granted to Technical University of Cluj-Napoca & Cluj-Napoca City Municipality - by EU Commission - Brussels –2019</i> (premiu de echipa) <i>AEE Regional Award for Institutional Energy Management Association - by Association of Energy Engineers (AEE) – Charlotte, USA –2018</i> (premiu de echipa) <i>Romanian Energy Award – Special Jury Award</i> (premiu de echipa) - 2015 <i>Excellence Award for research publications</i> (premiu individual) - 2014 <i>Professor Bologna National Prize</i> (premiu individual) - 2012 <i>Excellence Award for young researchers</i> (premiu individual) - 2008

	<p>7. <i>2nd Prize for Research Projects</i> - CEEEx No. 136/2006: Intelligent and active diagnosis and prediction of buildings in a complex polluted environment (premiu echipa) – 2008</p> <p>8. <i>Premierea Cercetării – Articole în Jurnale ISI</i> - acordate prin competiție de către ANCS: 14 premii - PN-II-RU-PRECISI and PN-III-P1-1.1- PRECISI (premiu de echipa) - 2008-2023</p>
2000-prez.	<p>Stagii de cercetare/predare (durata minim 2 săptămâni - selecție) (peste 60)</p> <p>2000/2001/2002 – Vrije Universiteit Brussels, Belgium; 2003/2005/2008/2014- Federico II University, Italy; 2008/2011/2015 – University of Padova, Italy; 2007 – Aristotle University of Salonic, Greece; 2008 – Budapest University of Technology, Hungary; 2009 - University of Sao Paolo, Brazil; 2010/2016 – Frederick University, Cyprus; 2010 – University of Chicago, USA; 2011– Ecole Normale Superior Lyon, France; South Westphalia University, Germany; University of Western Macedonia, Greece; 2012 – Oita University, Japan; University of Cagliari, Italy; 2013 - University of Novi Sad, Serbia; 2014-University of Porto, Portugal; 2015–University of the West of England, UK; University of Patras, Greece; 2016 – University of Coimbra, Portugal; Novosibirsk State Technical University, Russia; 2017–The University of Hong Kong; Lehigh University, USA; Temple University, USA; University of Florida, USA; 2018 – San-Diego University, USA; Texas Southern University, USA; 2019 – Beijing Jiaotong University, China; Cork Technological Institute, Ireland; 2020 – Brunel University London, UK; 2022 – Marmara University, Turkey; Abu Dhabi Polytechnic, UAE; University of Florida, USA; Howard University, USA; 2023 – Beijing Jiaotong University, China; Huazhong University of Science and Technology – HUST, China; Universitat Politècnica de Catalunya, Spain; Dalian Jiaotong University, China</p>

LISTĂ CU 10 LUCRĂRI PUBLICATE ÎN JURNALE ISI (Q1 și Q2) ÎN ULTIMII 5 ANI

1. Y. Li, S. Su, M. Zhang, Q. Liu, X. Nie, M. Xia, Dan D. Micu, "Multi-Agent Graph Reinforcement Learning Method for Electric Vehicle on-Route Charging Guidance in Coupled Transportation Electrification", *IEEE Transactions on Sustainable Energy*, 99(13), 2023, DOI: 10.1109/TSTE.2023.3330842
2. Berciu, E. Dulf, Dan D. Micu, „Improving the Efficiency of Electricity Consumption by Applying Real-Time Fuzzy and Fractional Control”, *Mathematics*, 10(20), 3807, 2022. DOI:10.3390/math10203807.
3. A. Iancu, P. Hendrick, Dan D. Micu, A. Cote, „Pandemic-Induced Shifts in Climate Change Perception and Energy Consumption Behaviors: A Cross-Country Analysis of Belgium, Italy, Romania, and Sweden”, *Sustainability*, 15(20), 14679, 2023, DOI: 10.3390/su152014679.
4. Cristea, M. Cristea, Dan D. Micu, A. Ceclan, R. Tîrnovan, F. Serban, „Tridimensional Sustainability and Feasibility Assessment of Grid-Connected Solar Photovoltaic Systems Applied for the Technical University of Cluj-Napoca”, *Sustainability*, 14(17), 10892, 2022, DOI:10.3390/su141710892.

5. Kereszy, V. Rakov, L. Czumbil, A. Muresan, Z. Ding, Dan D. Micu, V. Cooray, „Energetic Radiation from Subsequent-Stroke Leaders: The Role of Reduced Air Density in Decayed Lightning Channels”, *Applied Sciences - Physics*, 12(15), 7520, 2022. DOI:10.3390/app12157520, WOS:000840158700001.
6. Dan D. Micu, Editor:"*Simulation and Analysis of High Voltage Engineering in Power Systems*", 2022, ISBN 978-3-0365-4366-6, MDPI Energies, Basel, Switzerland.
7. Jurj, L. Czumbil, B. Bârgăuan, A. Ceclan, A. Polycarpou, Dan D. Micu, „Custom Outlier Detection for Electrical Energy Consumption Data Applied in Case of Demand Response in Block of Buildings”, *Sensors* 2021, 21(9), 2946. DOI:10.3390/s21092946.
8. M. Cretu; L. Czumbil, B. Bargauan, A. Ceclan, A. Berciu, A. Polycarpou, R. Rizzo, Dan D. Micu: “Modelling and evaluation of the Baseline Energy Consumption and the Key Performance Indicators in Technical University of Cluj-Napoca buildings within a Demand Response programme: a case study”, *IET Renewable Power Generation*, 14(15), pp 2864-2875, 2020, DOI: 10.1049/iet-rpg.2020.0096.
9. Darab, A. Turcu, H. Beleviu, S. Pavel, I. Birou, Dan D. Micu, „Hybrid load forecasting using gaussian process regression and novel residual prediction”, *Applied Sciences*, Volume 10, Issue 13, Article number 4588, 2020, DOI: 10.3390/app10134588.
10. Y. Zhu, V. A. Rakov, M. D. Tran, W. Lyu, Dan D. Micu, "A Modeling Study of Narrow Electric Field Signatures Produced by Lightning Strikes to Tall Towers", *Journal of Geophysical Research: Atmospheres*, Vol. 123/18, Pp. 10.260-10.277, 2018, DOI10.1029/2018JD028916.

*Lista completă lucrari/contracte:

https://entrec.utcluj.ro/docs/main_core/Micu%20Dan/LL_Micu_Dan.pdf

- 11** - cărți publicate în edituri naționale de prestigiu
- 5** - capitole de carte publicate în edituri internaționale
- 1** – editor *Special Issue* - publicat în editura internațională
- 315** - articole științifice publicate:
 - 113** - *ISI Thomson Journals/ ISI Proceedings*
 - 56** – *indexate Scopus*
 - 146** – *indexate în alte baze de date*



Dan Micu Edit

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Research Interest Score 687.1

Citations 909

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Martie 2023

Profesor Dan D. Micu