

Personal information

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Education

Year	Faculty/department - University/institution - Country
2014	Habilitation –Electrical Engineering - Technical University of Cluj-Napoca, Romania
2004	Ph.D. in Electrical Engineering - Technical University of Cluj-Napoca, Romania
2003	Bachelor in Mathematics - (average 9.52) Babes-Bolyai University, Cluj-Napoca, RO
1999	Master in Power Systems - (average 10) Technical University of Cluj-Napoca, Romania
1998	Bachelor in Power Systems - (average 9,92) Technical University of Cluj-Napoca, RO

Positions - current and previous

(Academic sector/research institutes/industrial sector/public sector/other)

Year	Job title – Employer - Country
2015-pres.	Professor - Technical University of Cluj-Napoca, Faculty of Electrical Engineering, Cluj-Napoca, RO
2024-pres.	Director - Electrotechnics and Measurements Department, Technical University of Cluj-Napoca, Faculty of Electrical Engineering, Cluj-Napoca, RO
Mar. 2023- June 2023	Part-time Professor – Beijing Jiaotong University, School of Renewable Energy, Beijing, China
Aug.2022- Dec.2022	Fulbright Fellow – Professor – University of Florida, Electrical and Computer Engineering, USA
Mar. 2022– June 2022	Part-time Professor – Beijing Jiaotong University, School of Renewable Energy, Beijing, China
Mar. 2021– June 2021	Part-time Professor – Beijing Jiaotong University, School of Renewable Energy, Beijing, China
Mar. 2020– June 2020	Part-time Professor – Beijing Jiaotong University, School of Renewable Energy, Beijing, China

Mar. 2019– June 2019	Part-time Professor – Beijing Jiaotong University, School of Renewable Energy, Beijing, China
Sept. 2017– Feb. 2018	Fulbright Fellow – Professor – University of Florida, Electrical and Computer Engineering, USA
2007–2015	Associate Professor - Technical University of Cluj-Napoca, Faculty of Electrical Engineering
2006–2010 (part time)	Scientific Expert – Managerial Agency of Scientific Research, Innovation and Technological Transfer, Bucharest-Ministry of Education and Research, Romania
2004–2007	Lecturer - Technical University of Cluj-Napoca, Faculty of Electrical Engineering, RO
1999–2004	Assistant - Technical University of Cluj-Napoca, Faculty of Electrical Engineering, RO
Feb-Jun 2000–2022	PhD Researcher - Vrije Universiteit Brussels, Electrical and Computer Engineering, Brussels, BE

Project management experience

(Academic sector/research institutes/industrial sector/public sector/other. List the most relevant.)

Year	Project title - Role – Funder – Budget – link to project webpage
Academic sector grants: Project Manager - 8 research grants obtained by international competitions	
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://www.evelixia-project.eu/
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, 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
Academic sector grants: Project Manager - 7 research grants obtained by national competitions (selection)	
2024– 2025	Clădirile - noduri active de rețea, PN-IV-P8-8.1 PRE-HE-ORG 2023-0143 56PHE/2024
2020– 2021	Pachet integrat de surse regenerabile pentru clădiri autonome, PN-III-P3-3.6-H2020-2020-0121; Contract nr. 44/2021

2020-2021	Cadru holistic pentru creșterea eficienței energetice în IMM-uri PN-III-P3-3.6-H2020-2020-0121; Contract nr. 42/2021
2010-2013	Modeling, prediction and design solutions, with maximum performance, to reduce the impact of dispersion currents on underground metal gas transport pipelines, CNCSIS TE 34/09.08.2010
2006-2008	Impact of anthropic electromagnetic fields on ecosystems – ICEMECOS, CEEX, nr. X2C37/2006 (Project manager TUCN partner)
2004-2006	Electromagnetic devices design optimisation based on electromagnetic field synthesis in inaccessible inhomogeneous environments, CNCSIS AT_224
Academic sector grants: Team Member - 10 research grants obtained by european competitions (selection)	
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 ENERGIEA, EEA and Norway grants, Total budget: 199.987 EUR, TUCN budget: 140.000 EUR, https://www.linkedin.com/company/energiea-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 - European Research Projects (Manager at 8 European Projects)

Total budget for Projects: (over 60 mil Euro)

Total Budget for TUCN Partner: (over 6 mil Euro)

16 – National Research Projects (Manager at 8 national projects)

> 20 projects for industry

Track record of the last 10 years most important scientific papers (selection)

ISI journal papers (Q1 and Q2):

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*, 15(2), 2024, DOI: 10.1109/TSTE.2023.3330842.
2. T. Oarga, G. Prunean, B. Varga, D. Moldovanu, Dan D. Micu, „Comparative Analysis of Energy Efficiency between Battery Electric Buses and Modular Autonomous Vehicles”, *Applied Sciences*, 14(11), 2024, DOI: 10.3390/app14114389.
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. A. 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.
5. C. 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.
6. I. 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.
7. D. 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. C. Darab, A. Turcu, H. Beleiu, 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, DOI:10.1029/2018JD028916.

Total: **11** - Scientific books published in publishing houses with prestige (**7** first author)

5 Book chapters published in an international publishing house

2 – Editor to a book published in an international publishing house

322 - Scientific papers published:

118 - ISI Thomson Journals/ Wos ISI Proceedings

58 – Scopus

146 - indexed in other data bases

Other relevant professional experiences

(e.g. institutional responsibilities, organisation of scientific meetings, membership in academic societies, review boards, advisory boards, committees and major research or innovation collaborations, other commissions of trust in public or private sector)

Year	Description - Role
2025-pres.	Honorary adviser – Romanian Ministry of Energy
2023	Co-founder of <i>Energy Advisor</i> Start-up - https://renergia.ro/
2022-pres.	Vice-president: Research-Education Division – <i>Romania-China Chamber of Commerce</i>
2021-pres	Member – „ <i>Colegiul Consultativ pentru Cercetare Dezvoltare si Inovare (CCCDI)</i> ” Ministry of Research
2020-pres	Scientific Expert - <i>Comisia de Științe Inginerești a Consiliului Național al Cercetării Științifice</i>
2020-pres	President – <i>TUCN Senate Research Commission</i>
2020-pres	Scientific Expert – <i>CeS-UTCN – Excelenta stiintifica si specializare inteligenta</i>
2019	Chairman of European EMTP-ATP Conference – Cluj-Napoca, 23-25 September 2019
2019	Co-Chairman of 54th Universities Power Engineering Conference – UPEC 1-4 Sep. 2019
2014-2017	Asistent Manager – <i>PARTING-Parteneriat interuniversitar pentru excelenta in inginerie</i>
2014	General Chairman - <i>49th Universities Power Engineering Conference</i> – UPEC 2-5 Sep. 2014
2012-pres.	Member of the <i>Scientific Research Council</i> – Technical University of Cluj Napoca
2010-pres.	Director - <i>Energy Transition Research Center</i> – <i>EnTReC</i> (entrec.utcluj.ro)
2010-pres.	Member - <i>International Steering Committee</i> (UPEC, EHE, MedPower, Synergymed, MPS)
2000-pres	Reviewer at <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	Member of the <i>Electrical Engineering Faculty Council</i> – Technical University of Cluj
2006-2010	Scientific expert - <i>RDI Project Manager - Program INOVARE</i> – AMCSIT-Bucuresti
2000-pres.	Member of <i>IEEE, AGIR, IRE, USE-Efficiency, CREESC, TREC, EMTP</i>
2000-pres.	External Examiner in PhD commissions abroad (12 international; 14 national)
2000-pres.	Erasmus coordinator (21 international institutional agreements)
2008-pres.	Awards: <ol style="list-style-type: none"> <i>Industry-University Collaboration Initiative Of The Year - Energy CEO Forum & Awards Gala – Bucharest - 2025</i> (team award) <i>Best European Energy Service Project granted to Technical University of Cluj-Napoca & Cluj-Napoca City Municipality - by EU Commission - Brussels –2019</i> (team award) <i>AEE Regional Award for Institutional Energy Management Association - by Association of Energy Engineers (AEE) – Charlotte, USA –2018</i> (team award) <i>Romanian Energy Award – Special Jury Award</i> (team award) - 2015 <i>Excellence Award for research publications</i> (individual award) - 2014 <i>Professor Bologna National Prize</i> (individual award) - 2012 <i>Excellence Award for young researchers</i> (individual award) - 2008

	<p>8. <i>2nd Prize for Research Projects</i> - CEEEx No. 136/2006: Intelligent and active diagnosis and prediction of buildings in a complex polluted environment (team award) - 2008</p> <p>9. <i>14 prizes for ISI Journal papers PN-II-RU-PRECISI and PN-III-P1-1.1- PRECISI</i> - awarded by National Authority of Scientific Research (team award) 2008-2023</p>
2000-pres.	<p>Research/Teaching Stages (selection)</p> <p>2000/2001 – Vrije Universiteit Brussels, Belgium; 2003/2005/2008/2014- Federico II University, Italy; 2008/2011/2015 – University of Padova, Italy; 2007 – Aristotle University of Salonica, Greece; 2008 – Budapest University of Technology, Hungary; 2009 - University of Sao Paulo, Brazil; 2010/2016 – Frederick University, Cyprus; 2010 – University of Chicago, USA; 2011– Ecole Normale Supérieure 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; 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; 2024 – Technological Institute of Kozani, Greece; Cardiff University, Wales, UK, 2025 – Kadir Has University, Istanbul, Turkey; 2025 – Shenyang University of Technology, China</p>

*Complete list of projects/papers: https://entrec.utcluj.ro/docs/main_core/Micu%20Dan/LL_Micu_Dan.pdf

June 2025

Professor Dan D. Micu

