# Personal Information

# Mureşan Alexandru



Street Plopilor, Nr. 71 Cluj-Napoca, Romania 400379

+40 744118234

alexandru.muresan@renergia.ro

10 https://www.linkedin.com/in/alexandru-muresan-bb0469105

Sex M | Date of birth 10/10/1991 | Nationality Romanian

#### PROFESSIONAL EXPERIENCE

#### 10.06.2024 - present

# **EU Young Energy Ambassador**

**European Comission** 

https://sustainable-energy-week.ec.europa.eu/alexandru-muresan en

- Drafting energy policy recommendations for the EU Energy Commissioner;
- Promoting sustainability and green transition in the EU;
- Participating in events and conferences organized by European Commission;
- Representing the EU young energy professionals in the European Parlament..

## 09.01.2023 present

# Co-founder and CEO, Renergia

Energy Advisor, Cluj-Napoca, Romania

# www.renergia.ro

- Study of energy efficiency approaches in commercial and residential sectors;
- Development of a dynamic and automated algorithm for generating energy efficiency recommendations in real time;
- Developing advanced numerical methods for load disaggregation (energy consumption)
- Coordinating the implementation of mathematics in digital environments
- Integration of the algorithm in a mobile App dedicated to the household energy consumer.

# 07.07.2022-present

# Energies Journal (MDPI) scientific reviewer

MDPI Headquarters, 4052 Basel, Switzerland

https://www.mdpi.com/

# 01.09.2018-present

# Sustainability Engineer/Researcher

Technical University of Cluj-Napoca, Energy Transition Research Center, Baritiu 26-28, Cluj-Napoca, Romania.

https://entrec.utcluj.ro/, https://www.utcluj.ro/

- Energy Efficiency in households.
- Renewable Energy Sources.
- Energy culture.
- Electromagnetic interferences.
- Numerical modeling.
- CAD design.
- Urban strategies (carbon neutrality roadmaps).
- Energy manager of Gherla City, responsable for the city roadmap towards complete decarbonization.

Coordinator of Alba Iulia Bold City Vision Plan 2050.

# Energy, Sustainability.

#### 03.10.2018 - present

# Research Assistant

Technical University of Cluj-Napoca, Faculty of Electrical Engineering, Baritiu 26-28, Cluj-Napoca, Romania.

#### https://ethm.utcluj.ro/asistenti-si-doctoranzi.html

- Numerical Methods Applied in Engineering.
- Theory of Electrical Circuits.
- Electromagnetic Compatibility.

# **Electrical Engineering, Applied Mathematics**

## 10.01.2021-01.11.2021

# **Energy Efficiency Consultant**

Servelect ESCO S.R.L, Str. Fabricii de Zahar 109, Cluj-Napoca, Romania.

# https://servelect.ro/.

- Elaboration of feasibility studies for assessing the implementation of energy efficiency measures and renewable energy sources impact.
- Lecturer in energy culture programs implemented at various clients.
- Carrying out research, development, and innovation activities in the field of energy.

#### Energy

#### 01.07.2015-01.04.2019

# Product Manager

Electroglobal S.R.L, Tăietura Turcului 47/16N, 400221, Cluj-Napoca, ROMÂNIA

#### https://www.electroglobal.ro/

- Commercial responsabilities regarding: strategies, commercial solutions, technical advice offered to clients, negotiations with suppliers.
- Management duties: elaboration of weekly, monthly, and annual reports regarding sales volumes, stock turnover, and profit margin.
- Maintenance and updating the products database in Microsoft Navision.

## Energy, Low Voltage Apparatus

# **EDUCATION AND TRAINING**

## May 2022-present

# City Energy Manager Certificate

Ministry of Energy, Splaiul Independenței 202E, Bucharest, Romania

http://energie.gov.ro/eficienta-energetica/

# September - November 2021

# Post Graduate Degree: "Energy efficiency and sustainability for energy managers and energy specialists (in SMEs)"

Technical University of Cluj-Napoca, Memorandumului 28, 400114, Cluj-Napoca, Romania.

https://www.utcluj.ro/

#### 01.07.2017-09.12.2020

# Ph.D. Electrical Engineering

EQF 8

Technical Univeristy of Cluj-Napoca, Faculty of Electrical Engineering, Baritiu 26-28, 400394, Cluj-Napoca, Romania

https://ie.utcluj.ro/acasa.html

## 10.01.2022 - 12.03.2022

## Invited Ph.D. Researcher

University of the West of England, UWE Bristol - Frenchay Campus, Coldharbour Ln, Bristol BS16

1QY,United Kingdom.

https://www.uwe.ac.uk/

01.05.2019-10.07.2019

Invited Ph.D. Researcher

SINT Engegneria SRL, Via Cristoforo Colombo, 106, 36061 Bassano del Grappa VI, Italy.

https://www.xgslab.com/

03.10.2015-10.07.2017

Master Degree Electrical Engineering

Technical University of Cluj-Napoca, Faculty of Electrical Engineering, Baritiu 26-28, 400394, Cluj-

Napoca, Romania

https://ie.utcluj.ro/acasa.html

03.10.2011-10.07.2015

**Bachelor Degree Electrical Engineering** 

Technical Univeristy of Cluj-Napoca, Faculty of Electrical Engineering, Baritiu 26-28, 400394, Cluj-

Napoca, Romania.

https://ie.utcluj.ro/acasa.html

15.07.2007-01.07.2011

Highschool: Economics

Ana Ipatescu Theoretical High School, Str. 1 Decembrie 1918 Nr. 20, Gherla 405300.

http://anaipatescugherla.ro/

23.02.2015 - 28.05.2015

**Erasmus Student** 

Università degli Studi di Padova, Via VIII Febbraio, 2, 35122 Padova PD, Italy.

https://www.unipd.it/

PERSONAL SKILSS

Mother Language

Romanian

B

Other languages

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
Enter level	Enter level	Enter level	Enter level	Enter level
B2	B2	B2	B2	B2

English

Driving License

## Organisational / managerial skills

- Ability to take responsibility achieved by being responsible for specific tasks in national and European (H2020, Interreg, URBARACT, POCA) projects;
- Communication skills gained through international cooperation;
- Planning and time management skills;
- Good organizational skills;
- Good teamwork skills acquired while volunteering student in a non-profit organization (as president) and at work.

#### **Digital Skilss**

- Microsot Office;
- Microsoft Navision;
- AutoCAD:
- PTC Mathcad;
- Electromagnetic Transient Program (EMTP)/ATP;
- HTML/CSS Basic knowledge:
- XGSLAb.

#### Other Skilss

- Founding member of the Students' League of the Technical University of Cluj-Napoca;
- Teaching skills acquired during my university activity with students;

## ADDITIONAL INFORMATION

## Projects

November 2021 - January 2022

# Alba Iulia's Smart City Strategy (URBARACT)

 Research Engineer and activities coordinator on behalf of the Technical University of Cluj-Napoca.

June 2021 - January 2022

**S3UNICA** (Smart SpecialiSation UNIvercity CAmpus, Interregeurope)

 Research Engineer and activities coordinator on behalf of the Technical University of Cluj-Napoca.

September 2020 - January 2023

<u>GEAR@SME</u> (Generate energy efficient acting and Results at small & medium enterprises, 894356–GEAR@SME –H2020-LC-SC3-2018-2019-2020 / H2020-LC-SC3-EE-2019, 2020-2023).

- Contributions to the project activities, development and verification of deliverables.

September 2019 -August 2022

**SMEmPower Efficiency** (A holistic framework for Empowering SME's capacity to increase their energy efficiency,847132-SMEmPower Efficiency-H2020-LC-SC3-2018-2019-2020/H2020-LC-SC3-EE-2018, 2019-2022)

- Contributions to the project activities, development and verification of deliverables.

April 2019 – September 2022

**RE-COGNITION** (Renewable Cogeneration and Storage Technologies Integration for energy AutonomousBuildings, 815301-RE-COGNITION-H2020-LC-SC3-2018-2019-2020/H2020-LC-SC3-2018-RESTwoStages,2019-2022, www.re-cognition-project.eu)

Involved in tasks and development of deliverables.

January 2018 - Junne 2021

**eDREAM** (enabling new Demand REsponse Advanced, Market oriented and Secure technologies, solutions and business models, H2020-LCE-2016-2017/H2020-LCE-2017-SGS, 2018-2021)

- Involved in tasks and development of deliverables.

#### **Publications**

- Kereszy, I.; Rakov, V.; Czumbil, L.; Muresan, A.; Ding, Z.; Micu, D.; Cooray, V. Energetic Radiation from Subsequent-Stroke Leaders: The Role of Reduced Air Density in Decayed Lightning Channels. Appl. Sci. 2022, 12, 7520. https://doi.org/10.3390/app12157520
- Muresan Alexandru, Levente Czumbil, Alexis Polycarpou, Hassan Nouri, Roberto Andolfato, Dan D. Micu "Mitigation of transient ground potential rise in gas insulated substations during very fast transient overvoltage, Volume 207, 2022, 107824, *Electric Power Systems Research Journal.*

#### Conferences

 Alexandru, M.; Czumbil, L.; Andolfato, R.; Nouri, H.; Micu, D.D. "Investigating the Effect of Several Model Configurations on the Transient Response of Gas-Insulated Substation during Fault Events Using an Electromagnetic Field Theory Approach" *Energies Journal*

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- 2022 20th International Conference on Harmonics and Power Quality
  A. Muresan et al., "A Practical Approach to Mitigate the Harmonic Distorsion in a Microgrid, Case Study," 2022 20th International Conference on Harmonics & Quality of Power (ICHQP), 2022, pp. 1-6
- 56th International Universities Power Engineering Conference (UPEC)
  D. Stet et al., "Educational and Training Program to Increase SME's Energy Efficiency Skills," 2021
  56th International Universities Power Engineering Conference (UPEC), 2021, pp. 1-6, doi: 10.1109/UPEC50034.2021.9548263.
  - The 12th Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion (MEDPOWER 2020)

M. Alexandru, L. Czumbil, A. Polycarpou, H. Nouri, R. Andolfato and D. D. Micu, "NOVEL ELECTROMAGNETIC FIELD THEORY APPROACH APPLIED TO GAS INSULATED SUBSTATION TRANSIENT BEHAVIOUR DURING LIGHTNING SURGE IMPULSE"

- International Conference and Exposition on Electrical And Power Engineering (EPE) M. Alexandru, L. Czumbil, D. D. Micu and T. Papadopoulos, "Analysis of Electromagnetic Interferences Between AC High Voltage Power Lines and Metallic Pipeline Using Two Different Approaches Based on Circuit Theory and Electromagnetic Field Theory,", 2020, pp. 519-524, doi: 10.1109/EPE50722.2020.9305583.
  - 2018 International Conference and Exposition on Electrical And Power Engineering (EPE),

M. Alexandru, D. D. Micu, J. D. Ioan and R. Andolfato, "Overview on computational methods of Gas Insulated Substation grounding gridanalysis," 2018, pp. 0081-0086, doi: 10.1109/ICEPE.2018.8559872.

