Dénes Csala
Try something new. Everyday.

Energy & Sustainability
Biophysical Economics & Net Energy Analysis
Sustainable Energy Transitions

Simulation Modeling
Agent-based modeling & Complex systems
Systems Thinking & System Dynamics

Data Science
Machine Learning & Data Mining
Data Visualization & Infographics

Dénes is an **assistant professor** in *Energy Storage Systems Dynamics* with *Energy Lancaster* and an **independent consultant** in **data science**, **energy** and **data visualization**. His research interests include system dynamics, energy transitions, energy storage, **system dynamics**, data mining, machine learning, **AI** and agent-based modeling.

He is a well-known researcher in the field of **sustainable energy transitions** and **biophysical economics**. With a *PhD* in *Interdisciplinary Engineering* from **Masdar Institute**, in collaboration with **MIT**, his research has been published in *Nature* and it has been featured in *The Times*. He currently leads an **energy data analytics** project at Lancaster University.

When not in front of the computer, Dénes roams the **mountains** of the **Himalaya** and the **jungles** of **Africa** to hold workshops on **sustainability** and **renewable energy**. His **datactivism** blog *Try something new. Everyday.* Is followed by 2500, exploring topics in **development** through story-telling with data.

Assistant Professor
Energy Storage Systems Dynamics

Lancaster University
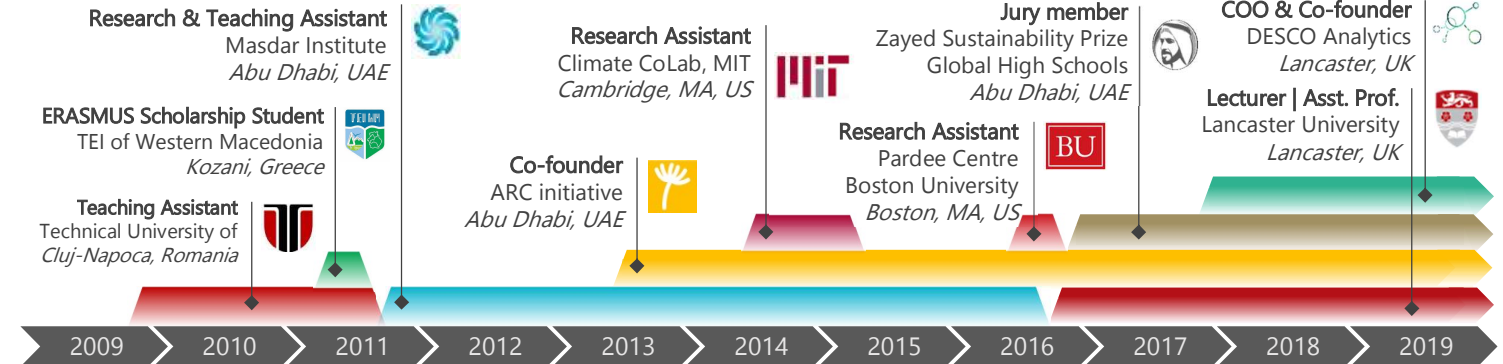+44 1524 593136
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Lancaster University
Department of Engineering
Energy Lancaster

Chief Operating Officer
Energy Data Analytics | Co-founder

DESCO Analytics
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DESCO Analytics
Energy Efficiency Recommendation Engine
Energy Analytics through Big Data and AI

Co-founder
Sustainable Energy & Development

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ARC initiative
Engineering System Design through
Participation · Collaboration · Sustainability

Research & Teaching Assistant
Masdar Institute
Abu Dhabi, UAE

ERASMUS Scholarship Student
TEI of Western Macedonia
Kozani, Greece

Teaching Assistant
Technical University of
Cluj-Napoca, Romania

Research Assistant
Climate CoLab, MIT
Cambridge, MA, US

Co-founder
ARC initiative
Abu Dhabi, UAE

Jury member
Zayed Sustainability Prize
Global High Schools
Abu Dhabi, UAE

Research Assistant
Pardee Centre
Boston University
Boston, MA, US

COO & Co-founder
DESCO Analytics
Lancaster, UK

Lecturer | Asst. Prof.
Lancaster University
Lancaster, UK

Timeline: 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

BSc in Electrical Engineering
Technical University of
Cluj-Napoca, Romania

MSc in Engineering Systems & Management
Masdar Institute & MIT
Abu Dhabi, UAE

International Summer University on Energy
Helmholtz Zentrum Berlin
Falera, Switzerland

PhD exchange
Sloan School, MIT
Cambridge, MA, US

PhD in Interdisciplinary Engineering
Masdar Institute & MIT
Abu Dhabi, UAE

Professional Certificate in Blockchain Strategy
Saiid Business School
University of Oxford, UK

Professional Certificate in Deep Learning
deeplearning.ai

Professional

3y years **Asst Prof**
7y Research Ast
4y Teaching Ast
5y Development
4y Data Science

PhD thesis ➥
MSc thesis ➥
BSc thesis ➥

Personal

4 DAN **black belt** in **Shotokan Karate**
4 DAN in **Kendo**

2 World & 4 Euro Championships

Climbed Mont Blanc Stok Kangri **6153m**

Visited 70 countries
Lived in 5 on 3 cont

Research

10+ peer-reviewed articles in journals including **Nature**

RG: 15.8 h-index: 5

PI on 5 **research grants**, Co-I on 3

Research featured in **Times**, **WEF**, with over **130,000 reads**

Projects

Educational work-shops on sustain-ability and **renewable energy** in Kenya, Rwanda, Malaysia, Indonesia, Tanzania, India, Somaliland.

2500 blog followers

Live workshops on **dataviz, datactivism**

Visualizations

My **data analyses** have been featured by UNDP, UNHCR, the GDELT project and **Kantar Info Beautiful Awards**

Pro in **D3**, D3plus, Seaborn, Bokeh, **PowerBI**, **Grafana**, HTML + CSS + JS

Models

My agent-based & system dynamics **simulation models** top 3 of the 10 categories on **runthemodel.com** Ecosystem& Social Dynamics **AnyLogic**

Pro in **Python, keras, TF,**, sk-learn

Presentations

Languages

As native:
EN, HU, RO
Medium: FR, DE

30+ presentations around the **world**

Pro in impress.js, **slides.com**, live