



Dénes Csala
Try something new. Everyday.

Graduate Research Assistant Sociotechnical Sustainable Transitions

Masdar Institute of Science and Technology
*Institute Center for Smart & Sustainable Systems
Engineering Systems & Management*

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Co-founder Workshops, Modeling

ARC initiative
*Engineering System Design through
Participation · Collaboration · Sustainability*

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profile

Data Science

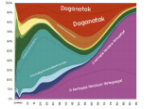
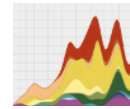
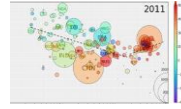
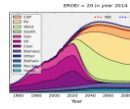
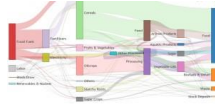
Data Analysis & Data Mining
Data Visualization & Infographics
Dataactivism & Data blogs: EN | HU

Energy & Sustainability

Biophysical Economics & Net Energy Analysis
Sustainable Energy Transitions
Renewables & Water-Energy-Food Nexus

Simulation Modeling

Game theory & Networks
Agent-based modeling & Complex systems
Systems Thinking & System Dynamics



education



2013 –
Sep – Dec
2014

PhD candidate in Interdisciplinary Engineering

Masdar Institute of Science and Technology, Abu Dhabi, UAE
degree offered in collaboration with Massachusetts Institute of Technology (MIT), USA
Focus areas: Sustainable Energy Transitions, Data Science, Energy Flows Modeling
exchange semester at Massachusetts Institute of Technology (MIT), USA
Focus areas: Climate change modeling, Nonlinear dynamic systems,



2011 – 2013
3.63 / 4.00

MSc Thesis

MSc in Engineering Systems & Management

Masdar Institute of Science and Technology, Abu Dhabi, UAE
degree offered in collaboration with Massachusetts Institute of Technology (MIT), USA
Focus areas: Object Oriented System Dynamics, Sustainable Aviation



2007 – 2011
9.15 / 10.00

BSc Thesis

BSc (honors) in Electrical Engineering, Electrical Systems

Technical University of Cluj-Napoca, Cluj-Napoca, Romania, *Head of Class, Best Thesis*
co-signed by Western Macedonia University of Applied Sciences, Greece
Specialization: Electrical Systems, Focus areas: Numerical Methods, Electromagnetism

2003 – 2007

Márton Áron High School – Miercurea Ciuc, Romania, *98.4 / 100, Head of Class, Promotion*

skills



Python AnyLogic
D3.js UN data APIs
Javascript Teaching
HTML + CSS Vensim
D3plus Sankeys
Excel VBA Data mining

languages



Hungarian (native)
Romanian (as native)
English (as native)
French (intermediate)
German (intermediate)

experience & research

7 years experience as Research Assistant } link
4 years experience as Teaching Assistant }
8 months spent as visiting student/researcher
3+ years in development with ARC initiative - link
2+ years in data analysis and visualization - link
1 journal article, 3 expected }
5 conference presentations } link
1 book, 1 book chapter }



Research websites: [SET](#) | [Food](#) | [Conflict](#) | [Development](#)

involvement

Development

Through my organization, ARC initiative, I have participated in, organized and led educational workshops on sustainability and renewable energy in developing regions, including India, Indonesia, Malaysia, Tanzania and Somaliland.

Dataactivism

My data analyses have been featured by UNDP, UNHCR, the GDELT project and Kantar Information Is Beautiful Awards.

activities

Martial arts
Trekking
Stok Kangri
Mont Blanc

4 DAN Shotokan Karate, 3 DAN Kendo
2 World & 4 European Championships
with Romanian National Kendo Team

Traveling (visited 40+ countries, lived in 4)



References for Denes Csala

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