NETWORK AND DATA SCIENCE

CEU CENTRAL EUROPEAN UNIVERSITY

Who we are

As the world's first department dedicated to the study of today's ever-growing networks, we strive to train skillful scientists who understand the structure and functions of large-scale social, economic and political systems. We are a group of sociologists, physicists and data scientists who combine data science tools with a network science approach to offer new and exciting ways to tackle complex problems impenetrable to linear-proportional thinking. We translate ideas into research projects, which are often funded through major grants from EU and U.S. agencies.

What we offer

PhD in Network Science / This pioneering, research-driven program will introduce you to network theory, methods and data so you can make sense of complex phenomena using simple principles of making network links. We offer advanced training in theoretical and computational methods, challenging coursework on the basic concepts and theories of large-scale networks, and hands-on experience in taming massive datasets.

Working across disciplines, you will learn how to measure and predict the dynamics of complex networks—biological, social, physical or technical. You will have the opportunity to focus on a specific field, such as mathematics, economics, sociology, political science or environmental science, and take part in cross-border research projects. By the end of your studies, you will develop into an independent researcher who is able to uncover and untangle the patterns of our connected world.

MILAN JANOSOV / HUNGARY
"The Department of Network and Data Science uniquely bridges natural, computational and social sciences. Its research covers a diverse spectrum of network science concepts to find answers to complex questions about human behavior, such as the success of scientists and the detectability of corruption. As a physicist and biophysicist with a keen interest in interdisciplinary research and big data analytics, I think CEU's Department of Network and Data Science is a perfect place to pursue a PhD."

What you will study

Explore big data: efficient ways to analyze, model and visualize networks of millions of people • Understand social processes: friendships and phone calls, spread of ideas and the emergence of order from chaos • Discover secrets of success: how teams innovate, scientists make breakthroughs and entrepreneurs make their first million • Uncover hidden webs: political corruption, terrorist networks, global finance and the wirings of the brain • Master mathematical foundations: graph theory, dynamic processes and graph limits

Where your degree will take you

Be it academia, government or business, there's a rapidly growing demand for network and data scientists in our increasingly interconnected, global society. Applied network scientists are sought after by tech giants and digital disruptors who want to improve users' online experience. They are also employed as consultants for developing business infrastructures or as risk mitigation experts at major financial institutions.

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INTERNATIONAL RESEARCH PROJECTS, INCLUDING A SYNERGY ERC GRANT	ARTICLES IN REFEREED JOURNALS IN 2018-19	STUDENT/FACULTY RATIO

How to fund your studies

In pursuit of our mission, we strive to attract world-class graduate talent from all over the world. This is why we offer generous scholarships available to students from any country. Doctoral scholarships include a full tuition waiver and a monthly stipend for living expenses. Learn more at *www.ceu.edu/financialaid*.

How to apply

General admissions requirements

- Completed online application form: *www.ceu.edu/apply*
- Proof of English proficiency
- Letters of recommendation
- CV

Program-specific requirements

- Master's degree in one of a broad range of related disciplines, including physics, mathematics, computer science, sociology, political science or economics
- Strong interest in interdisciplinary research
- Demonstrated ability to do quantitative studies
- Detailed account of earlier studies
- Statement of purpose

CENTRAL EUROPEAN UNIVERSITY

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