



# THE MATH CHALLENGE

FEBRUARY 12TH  
2022



# Are you a natural problem-solver?

Take part in the “Math Challenge” and apply your analytical and critical-thinking skills to solve real-world problems.

We are living through a golden age of mathematics. In every organization, mathematics is actively used to generate sustainable competitive advantages, create innovative business models, and represent and reproduce real-life events. Data is already one of the main critical digital assets. From Netflix’s recommendation engine to Uber’s route optimization engine, the applications are part of our everyday lives.

For organizations, the next frontier lies in expressing business models in mathematical terms. By describing the organization as a model, we can create a digital twin, which enhances the ability to simulate, innovate and understand the organization. Applied mathematics is the key to creating these mathematical models that all organizations require. With applied mathematics, we have the incredible power to solve real-world challenges and push the boundaries of what our society is capable of.

The Math Challenge is a global competition where students will prove their analytical and critical thinking skills and have the chance

to win a scholarship for studying a Bachelor at IE University (if they successfully pass the Admission Process). Before the challenge begins, you will participate in the Master Class on **How Applied Math is shaping Our Future**.

Have you ever wondered: (1) how can we measure sentiment change as a result of social media interactions, (2) how can we describe the spread of a forest fire or (3) how can we enhance the consumer experience in e-commerce? Inspired by natural phenomena or social needs, companies employ Applied Mathematics to find rigorous, elegant and novel solutions that have a profound impact on society.

After being presented with a series of problems, your task is to propose the best models possible that provide the most effective solutions. It's time to step up and become an innovative problem-solver with razor-sharp critical-thinking skills.

# Agenda

FEBRUARY 12: MATH CHALLENGE DAY

15:00H - 15:15H

## Welcome and Introduction to the Challenge

Brief introduction to the challenge. The participants will receive a document with a description of the challenge.

15:15H - 15:45H

## How Applied Math is Shaping Our Future?

Master class to discover how Applied Mathematics is transforming our reality.

15:45H - 17:15H

## Math Challenge

The participants will solve the problems and deliver their solutions in a document (Word/PDF format).

17:15H - 18:15H\*

## Jury Deliberation

The panel will review the written documents using a grading system.

18:15H - 18:30H\*

## Announcement of the winner and Closing

Live online announcement of the Math Challenge winner.

\* This time it may be extended depending on the number of participants.

# About the challenge

## **TERMS AND CONDITIONS**

To participate you need a PC or laptop with a microphone and webcam, good internet connection and distraction-free environment to focus on the competition. During the challenge, you must have your camera on. It is not mandatory to turn on the microphone. If you have any question during the session, you need to raise your hand and you will be moved to the consultation breakout room.

## **1**

### **JOIN THE LIVE SESSION**

The Challenge will be held in Zoom platform and will be monitored and recorded. During the opening session, you will be provided with the instructions to begin the competition.

## **2**

### **SOLVE THE CHALLENGE**

Apply your critical thinking and problem-solving skills to solve several real-life problems.

## **3**

### **WRITE AND SUBMIT YOUR PROPOSAL**

Write your proposed solution for the challenge in a WORD or PDF document (font: Arial, font size: 10pt, spacing: single).

Submit your resolution to

**[ieuchallenges@ie.edu](mailto:ieuchallenges@ie.edu)**

(Maximum 5 minutes after the completion of the challenge).

## DATA PROTECTION

By participating in this challenge you expressly authorize Instituto de Empresa, S.L. and IE Universidad (together, "IE") and any third parties hired by IE (such as service providers) to file and process your data, including your image and voice, over the course of the challenge and to verify you, in accordance with the stipulations of this document and [IE Privacy Policy](#).

By signing-up on Zoom you will be accessing a third-party link. For more information, please read the [Privacy Policy of Zoom Video Communications, Inc.](#)

The processing of your personal data by IE is based on the consent given, which can be withdrawn at any time. However,

in the case of withdrawal of consent, this will not affect the lawfulness of the processing carried out previously.

You may exercise your rights of access, rectification, erasure, opposition, restriction of processing and portability of the data via email to [soportededatos@ie.edu](mailto:soportededatos@ie.edu).

Finally, you may lodge a complaint to the Spanish Agency for Data Protection, at the address indicated by it at any time, if you consider that IE has violated their rights which are recognized by the applicable data protection regulation. However the above mentioned, you may contact the IE's Data Protection Officer at [dataprivacyoffice@ie.edu](mailto:dataprivacyoffice@ie.edu).

**CONTACT US**

ieuchallenges@ie.edu

**FIND US ON**



@ieuniversity



@ieu\_admissions

**ie**  
UNIVERSITY