## **DESTINI H2020 - TWINNING PROJECT**

## **SECOND SCHOOL**

## ON SMART DATA PROCESSING AND SYSTEMS OF DEEP INSIGHT

**JANUARY 24-28, 2022** 



## **ABOUT THE SCHOOL**

This event is the second part of a series of schools and workshops organized by DESTINI on Smart Data and it is aligned with the project's dissemination and communication strategy. The latter has been organized and structured to present different scientific topics within the project's Joint Research Activities (JRAs) and demonstrate their benefits to real cases. This school aims to share knowledge developed in the project and to facilitate discussions, as well as exchange of expertise, between researchers, industrial and business stakeholders, governmental and decision-making bodies and the general public.

The duration of the school is five days. It comprises various talks and presentations that mainly target industrial and market stakeholders. During its sessions, the school covers a variety of topics and scientific areas which offer solutions to real-world problems and challenges, and demonstrate how applied research can benefit businesses, researchers, project stakeholders and the general public. The talks are delivered by DESTINI's partners and other project collaborators.

## **ONLINE EVENT**

Click here to join













## **ABOUT DESTINI**

# DESTINI: SMART DATA PROCESSING AND SYSTEMS OF DEEP INSIGHT

#### TWINNING PROJECT - HORIZON2020

Smart Data ProcESsing and SysTems of Deep INsIght (DESTINI) is a H2020 Twinning Project that proposes a series of coordination and support actions for promoting research in the area of Smart Data. The Cyprus University of Technology (CUT) joins forces with two internationally recognized scientific groups from the Netherlands (Tilburg University and Jheronimous Academy of Data Science) and Italy (Sapienza Universita di Roma), aiming to strengthen its research and scientific profile in the relevant area. Specifically, DESTINI's activities revolve around exchanging scientific knowledge and transferring best research practices amongst its partners in the field of Smart Data Processing and Systems of Deep Insight.











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## Day 1 - Monday, January 24, 2022 (EET Time)

## 09:30 - 09:50 Welcome - Introduction

Prof. Andreas S. Andreou (DESTINI coordinator, Dept. of Electrical Engineering, Computer Engineering & Informatics, CUT)

#### 09:50 - 10:30 Big Data: Methods and Technologies - Part A

Prof. Donatella Firmani (Dept. of Statistical Sciences, Sapienza Università di Roma)

#### 10:30 - 11:10 Big Data: Methods and Technologies - Part B

Prof. Donatella Firmani (Dept. of Statistical Sciences, Sapienza Università di Roma)

#### 11:10 - 11:20 Break

# 11:20 - 11:40 Argumentation-based Framework for Explainable Machine

Learning (ARGEML)

Nicoletta Prentzas (PhD Candidate, University of Cyprus)

# 11:40 - 12:00 Preliminary Findings on the Virtual Reality Cognitive Gaming Based on Brain Computer Interfacing

Marios Hadjiaros (Researcher, CYENS, PhD Candidate, University of Cyprus)

## 12:00 - 12:40 Blockchain Applications - Part A

Prof. Claudio Di Ciccio (Dept. of Computer Science, Sapienza Università di Roma)

## 12:40 - 13:20 Blockchain Applications - Part B

Prof. Claudio Di Ciccio (Dept. of Computer Science, Sapienza Università di Roma)















## Day 2 - Tuesday, January 25, 2022 (EET Time)

## 09:30 - 10:10 Virtual Reality and Gamification - Part A

Prof. Lauren Ferro (Dept. of Computer, Control and Management Engineering, Sapienza Università di Roma) & Dr. Francesco Sapio (Sapienza Università di Roma)

#### 10:10 - 10:50 Virtual Reality and Gamification - Part B

Prof. Lauren Ferro (Dept. of Computer, Control and Management Engineering, Sapienza Università di Roma) & Dr. Francesco Sapio (Sapienza Università di Roma)

## 10:50 - 11:10 Rule Extraction in the Assessment of Brain MRI Lesions in

**Multiple Sclerosis: Preliminary Findings** 

Andria Nicolaou (PhD Candidate, University of Cyprus)

#### 11:10 - 11:20 Break

## 11:20 - 12:00 Privacy preservation - Reports from a Dutch Telecom

Nemania Borovits (PhD Candidate, Tilburg University)

## 12:00 - 12:30 Digital Twin in Electrical Spindles

Gianluca Drudi (HSD Mechatronics)

## 12:30 - 13:10 Query Answering and Query Abstraction Through

**Ontologies - Part A** 

Prof. Maurizio Lenzerini (Dept. of Computer, Control and Management Engineering, Sapienza Università di Roma)

# 13:10 - 13:50 Query Answering and Query Abstraction Through

**Ontologies - Part B** 

Prof. Maurizio Lenzerini (Dept. of Computer, Control and Management Engineering, Sapienza Università di Roma)















## Day 3 - Wednesday, January 26, 2022 (EET Time)

09:00 - 09:40 Complex Patterns of Biological Information Decoded with Network-based Bioinformatics

Prof. George Spyrou (Head of Bioinformatics Department, Cyprus Institute of Neurology and Genetics)

09:40 - 10:20 Enhanced Berth Allocation Using the Cuckoo Search Algorithm

Sheraz Aslam (PhD Candidate, Research Associate, CUT)

10:20 - 11:00 skillsChain: A Decentralized Application that Uses
Educational Robotics and Blockchain to Disrupt the
Educational Process

Prof. Panayiotis Christodoulou (Neapolis University Pafos / Postdoc-Research Associate, SEIIS Lab, Dept. of Electrical Engineering, Computer Engineering & Informatics, CUT)

11:00 - 11:10 Break

11:10 - 11:50 Unmanned Surface Vehicle for Marine Applications

Prof. Yiorgos Demetriou (Dept. of Electrical Engineering, Computer Engineering and Informatics, Frederick University Cyprus)

11:50 - 12:30 Transformation in Traditional Industry: Die Cutter 4.0

Jerin George Mathew (Sapienza Università di Roma) & Flavia Monti (PhD Candidate, Sapienza Università di Roma)

12:30 - 13:10 Data Driven Detection and Biological Control of Food Borne
Pathogens: The Case of Mycobacterium Avium Subspecies
Paratuberculosis

Prof. George Botsaris (Dept. of Agricultural Sciences, Biotechnology and Food Science, CUT)















## Day 4 - Thursday, January 27, 2022 (EET Time)

## 09:00 - 09:40 Computer Graphics - Animation

Prof. Stephania Loizidou (Dept. of Electrical Engineering, Computer Engineering and Informatics, Frederick University)

### 09:40 - 10:20 The Art of Process Mining

Elia Kouzari (Assistant Manager, KPMG)

#### 10:20 - 11:00 The Case Study of OVER Technologies

Adriano Cerocchi (CEO OVER technologies)

#### 11:00 - 11:10 Break

## 11:10 - 11:50 Integrating the Internet of Things in Real-life Scenarios

Prof. Lambros Lambrinos (Dept. of Communication and Internet Studies, CUT)

## 11:50 - 12:30 Business Process Management and Process Mining - Part A

Prof. Massimo Mecella (Dept. of Computer, Control and Management Engineering, Sapienza Università di Roma) & Prof. Francesco Leotta (Dept. of Computer, Control and Management Engineering, Sapienza Università di Roma)

## 12:30 - 13:10 Business Process Management and Process Mining - Part B

Prof. Massimo Mecella (Dept. of Computer, Control and Management Engineering, Sapienza Università di Roma) & Prof. Francesco Leotta (Dept. of Computer, Control and Management Engineering, Sapienza Università di Roma)















## Day 5 - Friday, January 28, 2022 (EET Time)

09:00 - 09:40 The WaterAnalytics Digital Twin

George Milis (Director and Innovations Manager, PHOEBE Research & Innovation)

09:40 - 10:20 PandoraSEAL: An Al-based Decision Support Tool for the Selection of Non-Pharmaceutical Interventions During

**Pandemics** 

Demetrianos Gavriel (Data Analytics Expert, PHOEBE Research & Innovation)

10:20 - 10:40 Ultrasound Carotid Plaque Video Data Analysis for the

**Estimation of the Risk of Stroke** 

Georgia Liapi (PhD Candidate, CUT)

10:40 - 11:00 An Adaptive Semi-Automated Integrated System for

**Multiple Sclerosis Lesion Segmentation in Longitudinal MRI** 

Scans Based on a Convolutional Neural Network

Andreas Georgiou (MSc, University of Cyprus)

11:00 - 11:10 Break

11:10 - 11:50 The Service Paradigm Rebound: Data Products, Meshes &

**Markets** 

Prof. Willem-Jan van den Heuvel (Jheronimus Academy of Data Science,

Tilburg University) &

Prof. Geert Monsieur (Dept. of Data Engineering, Tilburg University)

11:50 - 12:30 Demystifying Non-Fungible Tokens (NFTs)

Prof. Klitos Christodoulou (Dept. of Digital Innovation, University of

Nicosia)

12:30 - 13:10 Web-based Real-time Monitoring and Modeling of

Managed Aquifer Recharge Applications

Dr. Constantinos Panagiotou (Researcher, Excelsior - Eratosthenis CoE,

CUT)









