



## International Study Visit, CERTH, Greece 11-13 Feb 2020

# Middle East Technical University

Elif SURER

elifs@metu.edu.tr















# Organization

- Middle East Technical University (METU)
  - METU has 18 H2020 projects with a total budget of €71M where METU's share is €4.5M
  - METU has hosted 24 MSCA Individual Fellowships (as of FP6), 24 of which have already been completed with a budget of about €2.9M and two of ongoing projects with a budget over €320,00
  - METU has hosted 3 ERC Grants
  - At any given time, METU has approximately 400 R&D projects nationally funded by TÜBİTAK and various ministries and 60 R&D projects internationally sponsored, mainly by the EU Research and Innovation Framework Programmes















#### **Research interests**

- Entertainment Computing and Interactive Systems Lab
  - Founded in 2016
  - 15 MSc Students, 3 PhD Students, 8 MSc Alumni
  - In Close Collaboration with:
    - Department of Architecture
    - Department of Archaeology
    - Department of Biology
    - Department of Information Systems
    - Department of Mining
    - · Department of Psychology
    - Department Interior Design (Bilkent University)
  - International Collaborations:
    - University of Milan
    - University of Denmark
    - Colorado School of Mines
    - University of Sassari
    - · University of Vienna
    - eNOTICE Consortium
    - REWIRE Consortium





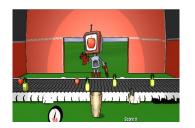






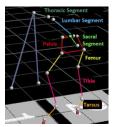
#### **Research interests**

- Research areas / activities
  - Serious Games
    - Stroke Rehabilitation, Neglect Syndrome, Down Syndrome, Dyslexia
  - Virtual Reality and Augmented Reality
    - Building Information Modelling, Basic Design
  - Artificial Intelligence
    - Video Game Testing using Agents
  - Machine Learning
    - Neolithization of Anatolia
  - Biomechanics
    - Cerebral Palsy in Children, Degenerative Lumbosacral Stenosis in German Shepherd Dogs





















#### **R&D** References

#### eNOTICE (2017-now)

- Topic: Pan European Networks of practitioners and other actors in the field of security
- Title: European Network Of CBRN Training Centers
- Coordinator: Universite Catholique de Louvain
- Consortium
  - Catholic University of Louvain (UCL)
  - Campus Vesta (VESTA)
  - Seine-et-Marne District Fire and Rescue Department (SDIS 77)
  - Association pour la Recherche et le Développement des Méthodes et Processus Industriels (ARMINES)
  - City of Dortmund Fire Department (FDDO)
  - safety innovation center (SIC)
  - Joint CBRN Defence Centre of Excellence (JCBRN DEFENCE COE)
  - Middle East Technical University (METU)
  - University of Rome "Tor Vergata" (UNITOV)
  - National CBRN Centre (WMP)
  - War Studies University (CBRN Defence Training Centre, Faculty of Military Studies) (WSU)
  - Scientific and Research Centre for Fire Protection National Research Institute (CNBOP-PIB)
- https://www.h2020-enotice.eu/

International Study Visits of TARAL to EU Key Players







HORIZ N 2020







#### **R&D** References

#### NEOGENE (2018-now)

- Topic: ERC Consolidator Grant
- Title: Archaeogenomic analysis of genetic and cultural interactions in Neolithic Anatolian societies
- Coordinator: Assoc. Prof. Mehmet Somel
- Team:
  - Assoc. Prof. Mehmet Somel
  - Prof. Yilmaz Selim Erdal
  - Asst. Prof. Elif Surer
  - Assoc. Prof. Cigdem Atakuman
  - · Asst. Prof. Fusun Ozer
- https://www.neogene.metu.edu.tr/















### **R&D References**

#### REWIRE (2011-2014)

- Topic: Personal Health Systems (PHS)
- Title: Rehabilitative Wayout In Responsive home Environments
- Coordinator: University of Milan
- Consortium:
  - · University of Milan
  - Ecole Polytechnique Federale de Lausanne (EPFL)
  - University of Oxford
  - University of Padova
  - Swiss Federal Institute of Technology Zurich
  - Ab.Acus
  - Fundación Progreso y Salud
  - Technogym
  - Bdigital
  - UniversitatsSpital Zurich
- https://www.rewire-project.eu













# **Specific Topics and Calls**

# Mention the specific topics and calls you are interested in or you plan to work on.

Call - Digital transformation in Health and Care

- SC1-DTH-06-2020: Accelerating the uptake of computer simulations for testing medicines and medical devices
- SC1-DTH-04-2020: International cooperation in smart living environments for ageing people
- SC1-DTH-02-2020: Personalised early risk prediction, prevention and intervention based on Artificial Intelligence and Big Data technologies











# **Specific Topics and Calls**

# Mention the specific topics and calls you are interested in or you plan to work on.

Call - Artificial Intelligence and Technologies for Digitising European Industry and Economy

- ICT-49-2020: Artificial Intelligence on demand platform
- ICT-38-2020: Artificial intelligence for manufacturing

Call - Digitising and transforming European industry and services: digital innovation hubs and platforms

DT-ICT-12-2020: All for the smart hospital of the future











#### **Collaboration Offer**

#### What can I bring to a consortium?

- Expertise in serious gaming, virtual/augmented/mixed reality, machine learning and artificial intelligence
- Experience in both health- and ICT-based EU projects
- Plan to partner in the projects
- I am looking for participating to new calls and forming new collaborations











# Wrap-up

- Main expertise
  - Serious Gaming
  - Virtual Reality / Augmented Reality / Mixed Reality / Extended Reality
  - Machine Learning
- SC1-DTH-06-2020: Accelerating the uptake of computer simulations for testing medicines and medical devices
  - 3D Modeling, Simulation and XR interaction
  - H2020 eNOTICE <a href="https://www.h2020-enotice.eu/">https://www.h2020-enotice.eu/</a> (2017-now) Reusing the assets, scenario builder, Unity development and XR integration from the serious games developed for eNOTICE
- SC1-DTH-04-2020: International cooperation in smart living environments for ageing people & DT-ICT-12-2020: AI for the smart hospital of the future
  - Serious gaming, ICT applications for patients, bioengineering experience
  - FP7 REWIRE <a href="https://www.rewire-project.eu">https://www.rewire-project.eu</a> (2013-2015) Experience with stroke and Neglect patients, multi-use serious game development, multi-sensorial interaction
- SC1-DTH-02-2020: Personalised early risk prediction, prevention and intervention based on Artificial Intelligence and Big Data technologies
  - Predictive analysis, adaptive systems
  - FP7 REWIRE and ERC NEOGENE <a href="https://neogene.metu.edu.tr">https://neogene.metu.edu.tr</a> (2018-now) Prediction based on DNA sequences and material culture data









# **Elif Surer**

# Middle East Technical University Multimedia Informatics Turkey

+903122107888 elifs@metu.edu.tr http://blog.metu.edu.tr/elifs





