

HORIZON 2020

HEALTH PARTNERING DAY 2017

HEALTH, DEMOGRAPHIC CHANGE & WELLBEING



7 DECEMBER 2017, BRUSSELS

Better Health and Care

Early Detection of Epileptic Seizures using Artificial Intelligence Techniques Integrated Mobile Devices

Ozan Kocadagli

Mimar Sinan University & Texas A&M University

Our team /expertise areas

- ❑ This project is being carried out by **Mimar Sinan** and **Texas A&M** Universities collaboratively.
- ❑ Mimar Sinan University (MSU), was founded in 1882, **one of the oldest public universities** in Istanbul, Turkey.
- ❑ Texas A&M, was founded in 1862, among the **nation's largest state universities**, located in College Station, Texas, USA.
- ❑ **Our research team** consists of many scientists from **Department of Statistics** at MSU and **ET&ID** at Texas A&M.
- ❑ Our team's expertise is in **statistics, machine learning, AI, software, electronic and mechanical engineering**.

Project idea

- ❑ We are interested in developing **smart software** that is based on **AI techniques**.
- ❑ Actually, this software will provide an integration between **EEG head set and mobile phones**.
- ❑ **We are planning to receive EEG signals from epileptic people** through the mobile phones connected EEG head sets.
- ❑ As soon as these signals arrive on our server, **the decision support system will process them immediately**, then send an epileptic person an instant informational message about the case of his/her brain activity.
- ❑ Hereby, **this software will be designed to guide epileptic people** about physical competences depending to their brain signals **when they are performing their daily activities**.

Topic

- ❑ This project undoubtedly requires across-the-board collaboration, so we are looking for **experts, researchers, entrepreneurs and investors**.
- ❑ **In the context of data collection** from epileptic individuals, we need to contact various **neurology and health institutes**.
- ❑ Especially, **we seek for the competent neurologists and epilepsy specialists** who can help us to interpret the latent structures of EEG signals accurately and estimate the robust statistical models.
- ❑ To receive the brain signals of epileptic individuals instantaneously, the integration of **portable EEG head sets and mobile phones** must be established.
- ❑ To provide the fast and secure data transfer efficiently, **the large-scale server management** is inevitable.
- ❑ To achieve all these research and development activities, we need for **the real life applications as well as laboratory and experimental environments**.

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We are waiting for your contributions...

THANKS FOR YOUR PARTICIPATION!!!

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Contact details

Ozan Kocadagli (PhD)

Associate Professor

Department of Statistics,
Faculty of Science and Letters,
Mimar Sinan University

Address: Silahsor Cad. No:71
Bomonti Kampusu, 34380 Sisli/Istanbul, TURKEY.

Phone: 090 212 246 00 11 - (5511)

Fax: 090 212 261 11 21

E-mail: ozan.kocadagli@msgsu.edu.tr