



# CELTIC AI Proposers Webinar

31<sup>st</sup> March 2020, 14:00 – 17:00 CET



## Monitoring of Smart City based on AI MSCAI Project Proposal



Senem Tanberk  
stanberk@netrd.com.tr

# Teaser



- *It provides the opportunity to get customized and personalized alerts for security guard or system manager.*
- *AI-powered video analytics makes city surveillance system more efficient, it reduces the workload on security and management staff.*
- *Video segmentation, indexing, retrieval, compression and anomaly tracking facilitates the analysis of long videos. They make the process faster and more efficient.*
- *And it helps to develop new features, alerts and products.*
- *Deep Learning based models are pluggable and they maybe integrated in existing video analytics framework.*



# Organisation Profile



**NetRD provides Research and Development solutions in next generation communication technologies for pioneering technology vendors across the globe, from backend to smart devices. The main research areas include Voice over Internet (VoIP), Unified Communications (UC), web based real-time communication (WebRTC) and moving telecommunications to the cloud.**

## Major Products

C20	AS	KANDY
Carrier grade VoIP switch	Application Server	VoIP switch Application Server Cloud based real time communication platform

## Key Competences

Software Development	Systems integration and solution validation
DevOPs	Communication Platforms
Cloudification	Big Data and Analytics

## NetRD in Numbers

350 R&D Engineers (10 PhD, 75 MSc)	100% English speaking R&D personnel
45 years of R&D solutions (including Netas)	305 Patents
Ongoing 13 big projects	Turkey's #1 software exporter

**EUREKA**

# Proposal Introduction



## **Vision :**

To improve public safety for smart cities with AI-powered video analytics solution.

## **Motivation :**

The application is offered as component for video analytics solutions on Smart Cities projects. Deep\_learning\_powered video analytics components such as segmentation, indexing, retrieval, anomaly detection will be developed.



# Proposal Introduction



*Video analytics used to improve public safety across cities :*

- *Cities are systems with a dynamic and complex structure. It improves focused on production, innovation and technology. In order to increase efficiency and improve the quality of life, many smart cities applications exist. Smart city application domains are: environment, transportation, security, health, energy, human, disaster and emergency management, economy, space management, etc.*
- *A large number of people live and work in cities. Smart cities are at the center of developing technology due to the need to improve the quality of life for all city people and to use resources efficiently.*
- *One of the most important issues in smart cities is security. It is very important to protect people against security threats in cities and to ensure crisis management. For this reason, cities should be monitored.*
- *There are many cameras in the city that record videos: during the day, night, weekday, weekend, and hour by hour. These images should be analyzed.*



# Proposal Introduction



*Video analytics used to improve public safety across cities :*

- *The cost of 7\*24 video monitoring by personnel is prohibitively expensive.*
- *Analysis of long-term camera images is facilitated by techniques such as smart compression, video segmentation, indexing, and retrieval.*
- *The AI-powered analytics component uses machine-learning/deep-learning to establish what is 'abnormal', that might be connected to safety or security incidents.*
- *Suspicious Behavior Detection Based on Video Analysis: video content analysis, incident detection.*
- *Detection and labeling of human activities from videos.*
- *Crowd analysis.*



# Partners



*We are looking for :*

- *City Municipalities and Managements*
- *Universities/Research Institutes implementing research studies in related areas*
- *SME*
- *Industry*



# Contact Info



**For more information and for interest to participate please contact:**

Senem Tanberk  
stanberk@netrd.com.tr  
+90 216 522 25 39  
www.netrd.com.tr

