Monitoring of Smart City based on AI
MSCAI
Project Proposal

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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.

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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.

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<th>C20</th>
<th>AS</th>
<th>KANDY</th>
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<td>Carrier grade VoIP switch</td>
<td>Application Server</td>
<td>VoIP switch Application Server Cloud based real time communication platform</td>
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**Major Products**

**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

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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.

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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.

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We are looking for:

- City Municipalities and Managements
- Universities/Research Institutes implementing research studies in related areas
- SME
- Industry
For more information and for interest to participate please contact:

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