SISOM PROJECT
A Mobile Solutions based on Augmented Reality & Knowledge Navigator for Safety Enhancement in Industrial Plants

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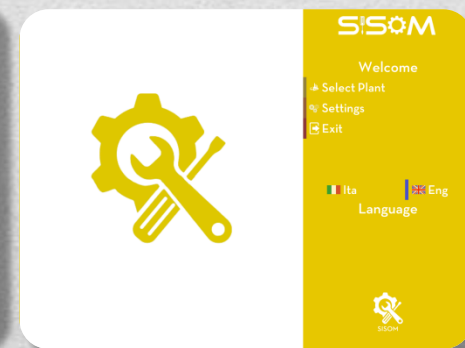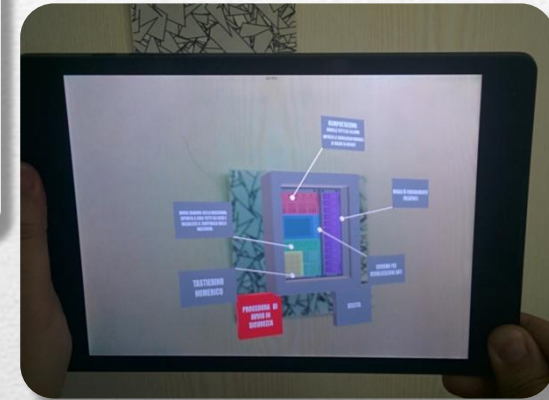*www.msc-les.org*

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Operators Training in Industrial Plants
By using Augmented Reality, knowledge Navigators and Mobile Technologies

- Design and implementation of a software application (smartphone, tablet, AR_Glasses, PC, etc.) based on Augmented Reality, Virtual Reality and SOPHOS-MS© Intelligent Personal Assistant and Knowledge Navigator (developed by MSC-LES)

- The Application is used to support maintenance operations, safety & security in industrial plants

- It can be used on-site in the plants facility (even to support production control) or off-line for training purposes

Developed by

Step 0   Step 1   Step 2   Step 3

SISOM
Welcome
Select Plant
Settings
Exit
Ita   Eng
Language

Simulation Team
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- Architecture for mobile devices (smartphone, tablet, Smart Glasses)

- Multi-platform Architecture (Android, IOS, etc)

- Augmented Reality system

- Interactive Virtual Reality

- Personal Assistant and Knowledge Navigator, SOPHOS-MS ©

- Voice Recognition functionality

- Text to Speech functionality
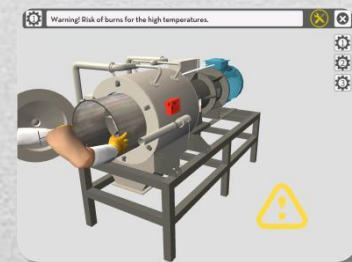
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Operators Training in Industrial Plants
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- SOPHOS-MS for Intelligent interactions through oral questions

- Access to 3D Virtual Models

- Learning procedures by using 3D Virtual and Interactive Environments

- Major information provided by Augmented Reality

- Access to additional information contents (e.g. photos, videos, text)

- Dual Use: on site for maintenance operations, safety and security, production control / off-site for education and training

- Object recognition with and without markers

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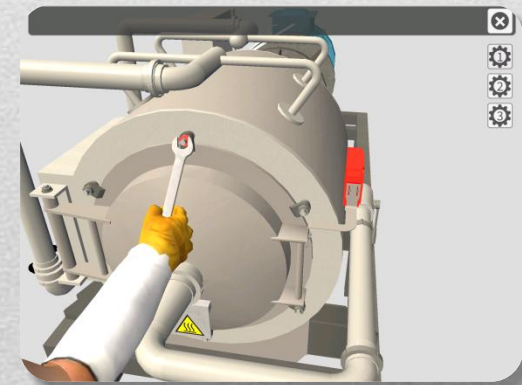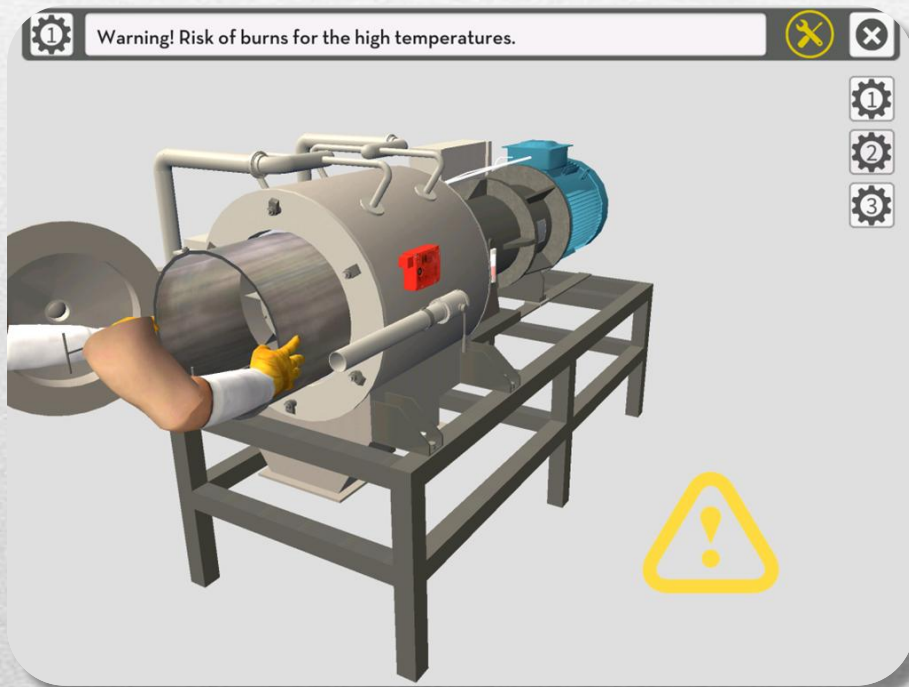
Conclusions

- **The proposed solutions are based on Synthetic Environments, Virtual Reality, Augmented Reality, Knowledge Navigators to train operators on multiple scenarios and operations;**

- **The solutions can also be used during real operations to provide augmented support to operators in different areas (safety, security, maintenance, etc.)**

- **Multiple Technologies and Devices can be used for Augmented Reality contents fruition (from smartphone and tablets, to smart glasses and holo-lens)**

- **Augmented Reality functionalities are further powered by the SOPHOS Personal Assistant and Knowledge Navigator able to interact with the user, understanding complex questions and providing detailed responses.**

References

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