



INNOVATION TECHNOLOGY

DIGITAL TRANSFORMATION WITH A HUMAN TOUCH



A.I. - Machine Learning
Blockchain
Virtual/Augmented Reality
Big Data Analytics

Company

Augmented/ virtual
reallity



System thinking



DevOps



Artificial intelligence



FastPrototyping



IOT/IOE



Big Data Intelligence



Complex Event
Processing

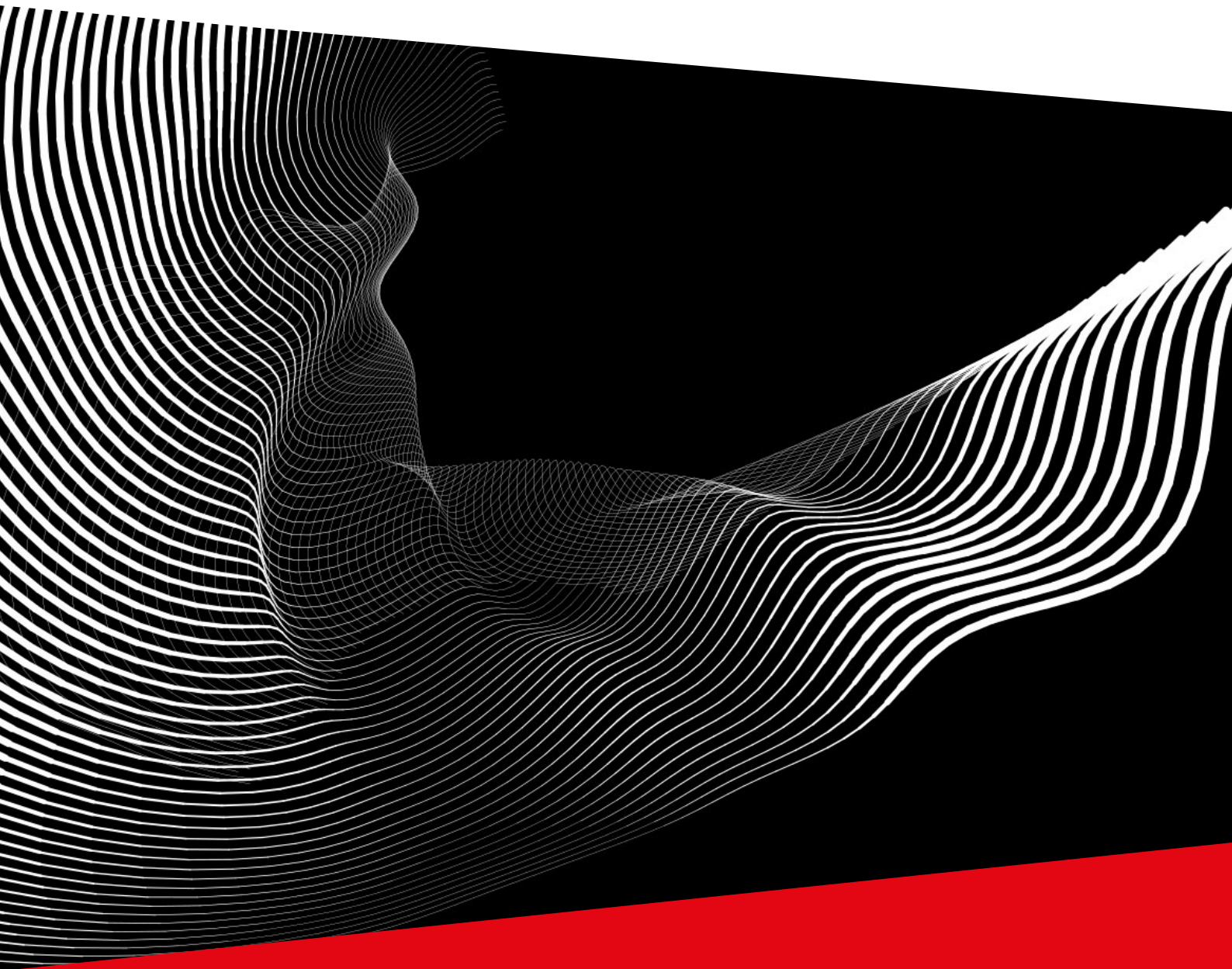


Cyber psychal system



Interaction Design





Mathema is an official Innovative SME (PMI Innovativa, according to the Italian law, d.l. 3/2015 "Investment Compact") active in the IT field since 1987, whose mission has been to support very large public and private organizations in security critical applications. Mathema follows a holistic approach to the design and implementation of complex artificial ecosystems, integrating different innovative technologies.



Artificial Intelligence

to detect events, decide and act.
Actions may be accomplished through air and terrestrial robots (auto-piloting drones and self-driving cars)



BlockChain

to provide trust and security through distributed and immutable ledger;



Virtual/Augmented/Mixed Reality

to provide human control over the ecosystem, de-fogging information flows, putting information in general contexts, raising alarms and recording actions take.

DaVinci - Artificial Intelligence



DaVinciFace is a software - based on the most innovative techniques of Artificial Intelligence, in particular on GAN (Generative Adversarial Network) - which aims to capture Leonardo's pictorial style and to attribute it to faces, mainly female, to create portraits in the Leonardesque style (eg La Belle Ferronnière, the Mona Lisa).

Human Pose Detection

"human pose detection" per il rilevamento di esseri umani in una scena v(foto o video),
"human pose estimation" per il riconoscimento delle parti del corpo umano in movimento (testa, spalle, braccia, mani, tronco, bacino, gambe, piedi) e "human action evation" per il riconoscimento dell'attività svolta dall'umano (ad esempio lettura di un libro o furto di merce da uno scaffale uso di una macchina utensile).
Si riporta in Figura 6 un esempio di riconoscimento di furto (antitaccheggio)



Main Collaborations

Polo di Innovazione
ICTROBOTICA

 **Farnesina**
Ministero degli Affari Esteri
e della Cooperazione Internazionale


accenture

EU-VRI

REGIONE TOSCANA



 **COMUNE DI
FIRENZE**

swarco 

 **MINISTERO
PER I BENI E
LE ATTIVITÀ
CULTURALI**

 **factorSOCIAL**
PSICOLOGIA E AMBIENTE



Consiglio Nazionale
delle Ricerche



 **UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH**

 **POLITECNICO
MILANO 1863**


Marchesi
ANTINORI

Recent Funded Research



CLOUD SOCKET

Business and IT-CLOUD alignment using smart Socket



JAM TODAY

Learning to Change Learning



REPLICATE

Reinassance of Places with innovative Citizenship and Technology



SHARES

Sharing Navigation Events from a Ship-as-sensor Network



DI - ASD

Supporting IT system for early diagnosis of Autism Spectrum Disorder



SCHOOLCHAIN

A Blockchain application for managing digital rights in learning objects



CYBER-TRUST

Advanced Cyber-Threat Intelligence, Detection, and Mitigation Platform for a Trusted Internet of Things



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