

Un caso applicativo reale: telecamera di sorveglianza basata su AI

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DAVE Embedded Systems

System On Module
Technology Leader



ARM based platform
FPGA based platform

Carrier Board design



WIFI/Cellular modules integration
Camera modules integration
Display&Touch integration

SOMs
System on Modules



SBC
Single Board Computer



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Technology Leader



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Display&Touch integration

Mechanical design



3D CAD approach
Thermal Integrity/ Signal Integrity
Power Integrity
Linux

Software design

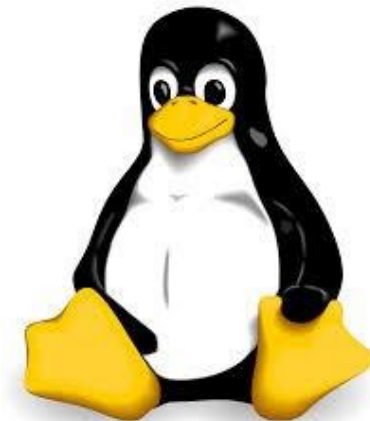


Android
RTOS
FPGA design and validation

Software integration



Field bus integration
Industrial communication
protocols
Internet Of Things 4.0
Machine Learning



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Manufacturing



SMT/PTH process
Automatic Testing Equipments
Quality and certifications



ISO 9001
ISO 13485
SNPB manufacturing
Sealing and coating processes



Company Investments → Manufacturing facilities

Company Turnover → 2 digits stable growth % y/y

Privately Held

Registered to “PMI innovative” list



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The Social Distancing's issue

Andrea and Matteo are too close each other?



Un caso applicativo reale

**A modern way to answer this question:
AI applied to Machine Vision**

Yes, Andrea and Matteo are too close each other



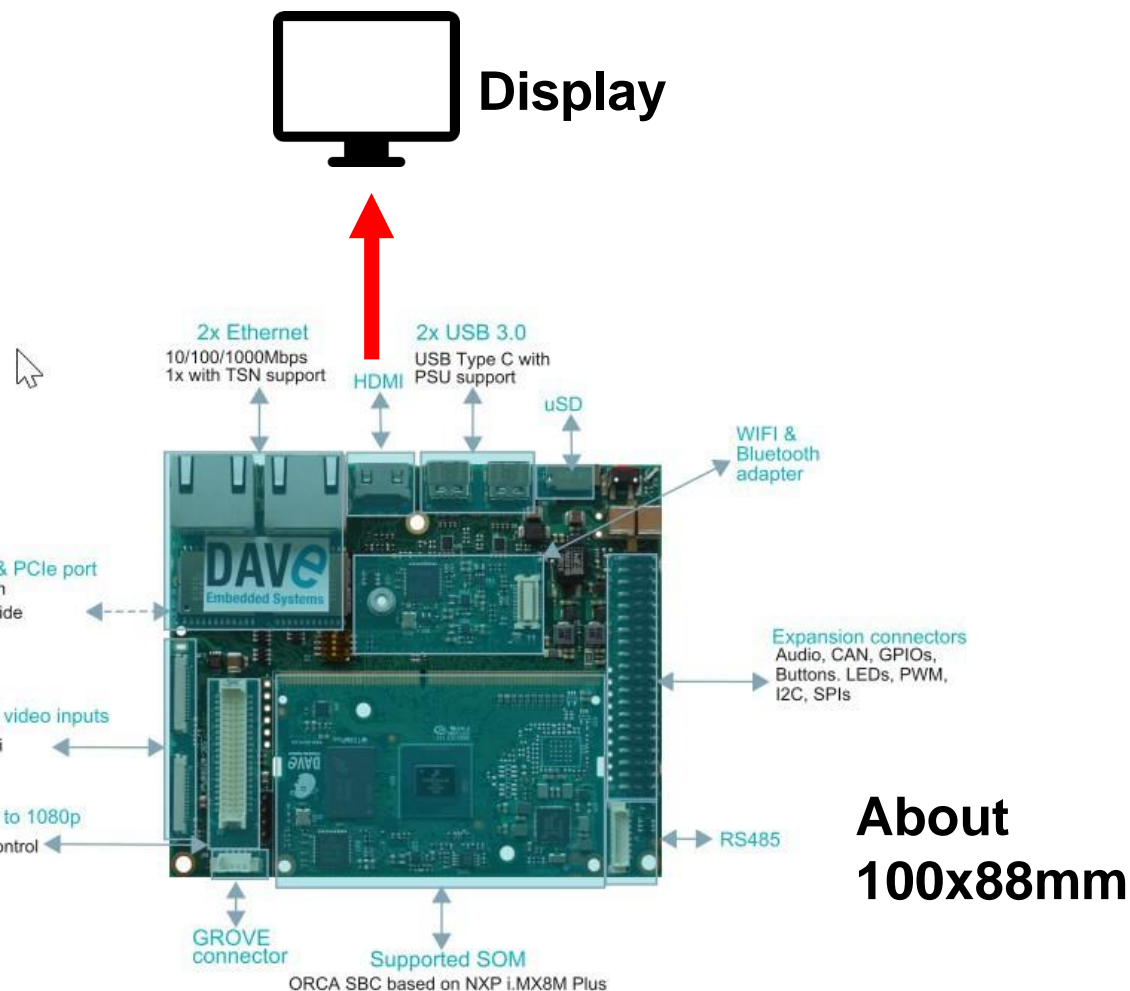
Un caso applicativo reale

Project based on the cooperation between partners for monitoring the social distancing based on an edge computing AI processing

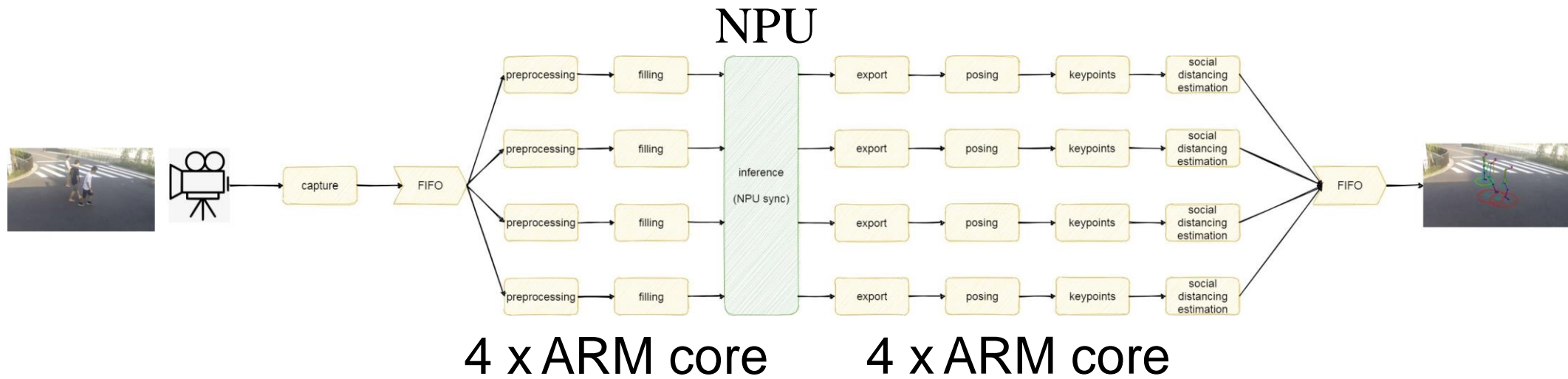
La soluzione proposta

The camera concept
based on SBC Orca
designed by DAVE
Embedded Systems

Camera sensor

La soluzione proposta



La soluzione proposta

Input:

- 25 fps
- Resolution: 640x360

Results:

- Output average frame rate: 23fps
- Inference time: ~25ms



Video surveillance

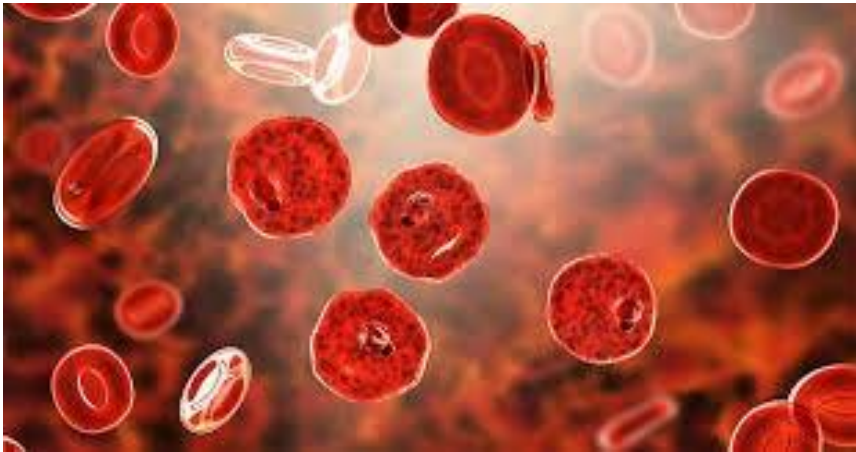


Hazardous
areas monitoring



Advanced
training

Trend analysis



Medical Analysis: control
and monitoring



Tracking systems and
vision feedback

Question & Answer



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