

A photograph of a space shuttle launching, with a large plume of white smoke and fire. The shuttle is positioned in the center of the frame, rising from a launch pad. The launch is taking place over a body of water, which reflects the shuttle and the smoke. The sky is a clear, pale blue. The foreground shows a line of green trees and bushes along the water's edge.

e-voluzione srl

F.M.Sacerdoti

e-voluzione

evolution paths for industries



Prototype Development

Hardware/Software Systems

Signal and Image Analysis systems

Advanced software development

Technology and Innovation consultancy

MIMIT: Albo dei
certificatori ricerca e
sviluppo e innovazione



Anagrafe Nazionale
delle Ricerche

e-voluzione

HW

SW

Industry 4.0

Sensors

Controls

SPC

DB

PLC

Automation

Software

Measurement
Systems

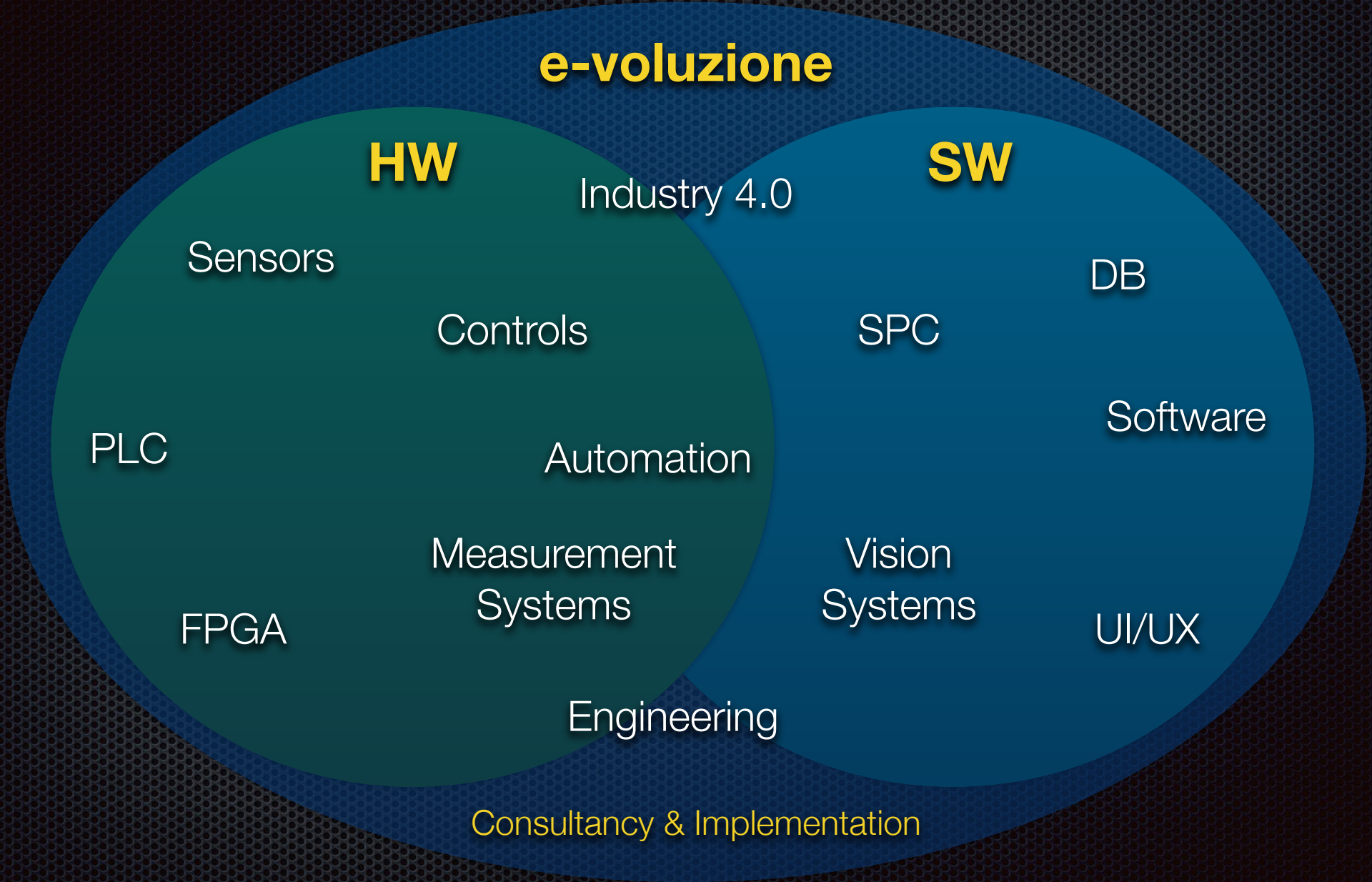
Vision
Systems

FPGA

UI/UX

Engineering

Consultancy & Implementation



Awards

F.M.Sacerdoti has developed since 1988 hardware/software systems for companies and research centers, from Artificial Intelligence systems to advanced industrial control, to complex measurement systems. He develops the ground control center for four Space Shuttle missions and for several Sounding Rockets.

He is Adjunct Professor at **Temple University** (Philadelphia - USA)
He is teacher at University "Federico II" of Sound Engineer
He was teacher at **Apple Developer Academy**
He was **Visiting Scientist** at CERN (Geneva)

He is **Certified LabView Architect** of National Instruments
He is **Certified Professional Instructor** of National Instruments

9 patents - 3 patent pending

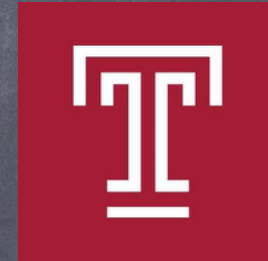
He won three years one after the other the second place of National Instruments for the **best Test & Measurement italian application**

Consultant for the Italian Ministry for the diffusion of Innovation and Research (DIRCE). Innovation project evaluator for Friuli-Venezia Giulia Region

ECSS Software Engineer Certified by European Space Agency (ESA)

Euroleader Award

e-voluzione was one of the three best space companies all over Europe between the BICs.



3 BOOKS

55 INTERNATIONAL PAPERS

19 INVITED SPEAKING

Our customers



**Hewlett Packard
Enterprise**

rexroth
A Bosch Company



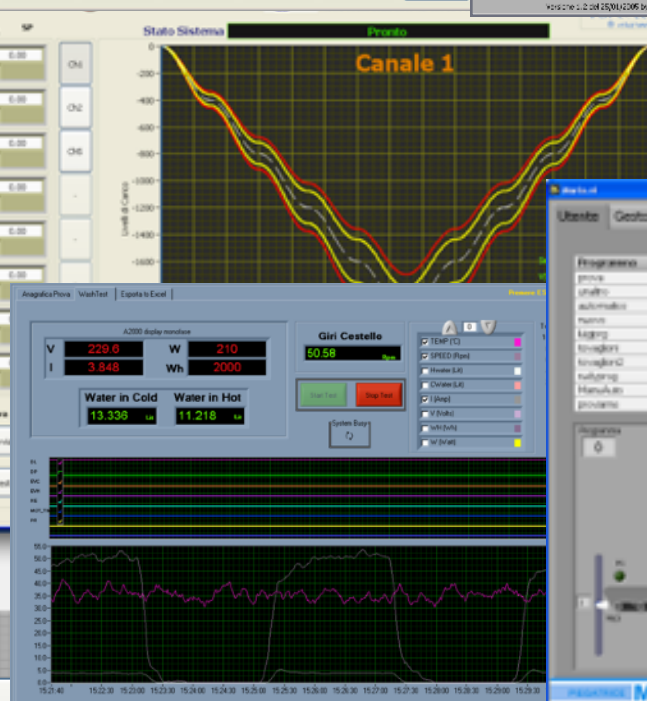
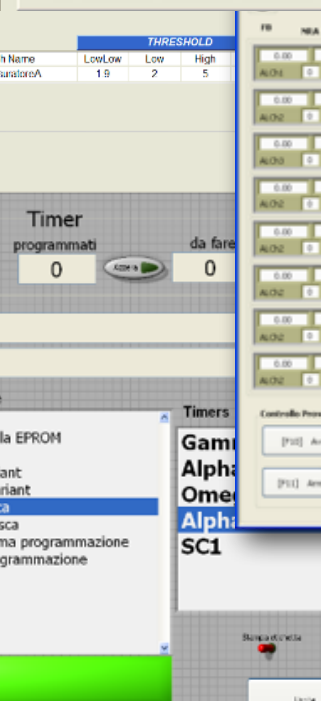
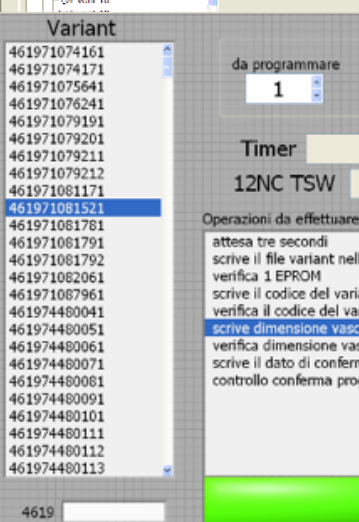
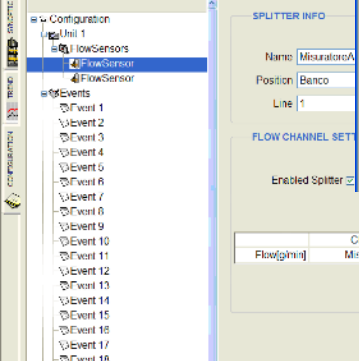
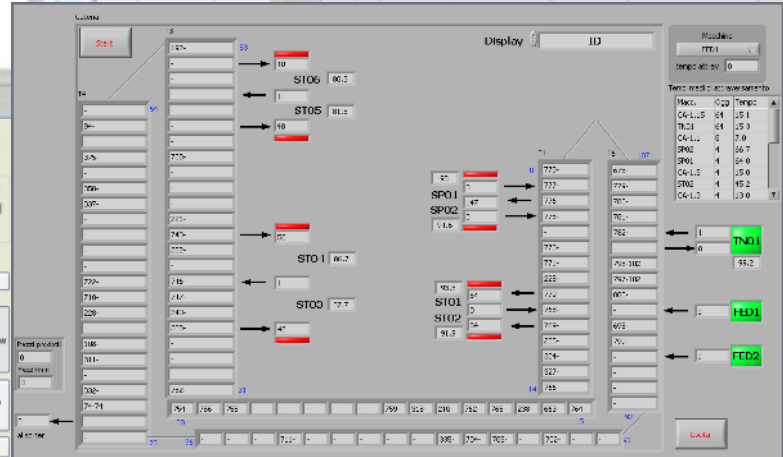
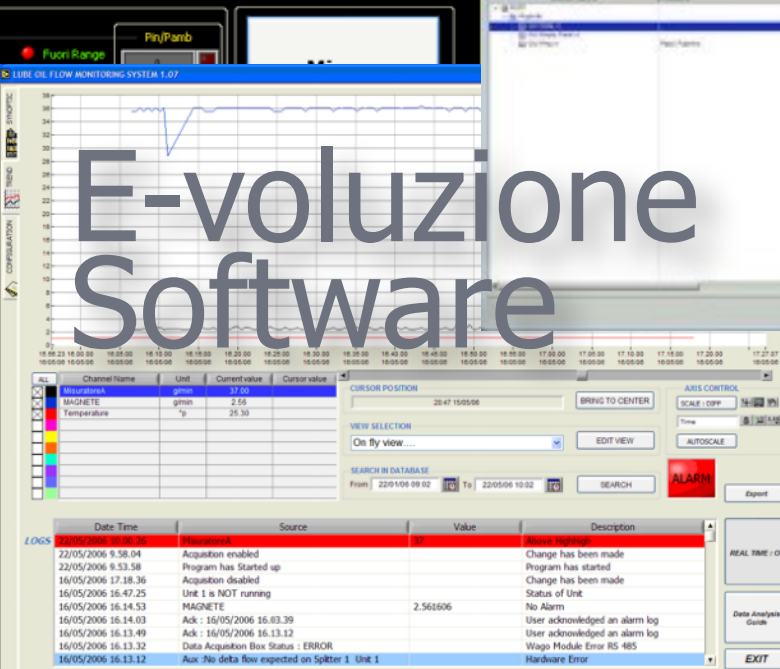
Centro Italiano Ricerche Aerospaziali



www.e-voluzione.it

Some systems realized in the past by F.M.Sacerdoti





E-voluzione Hardware



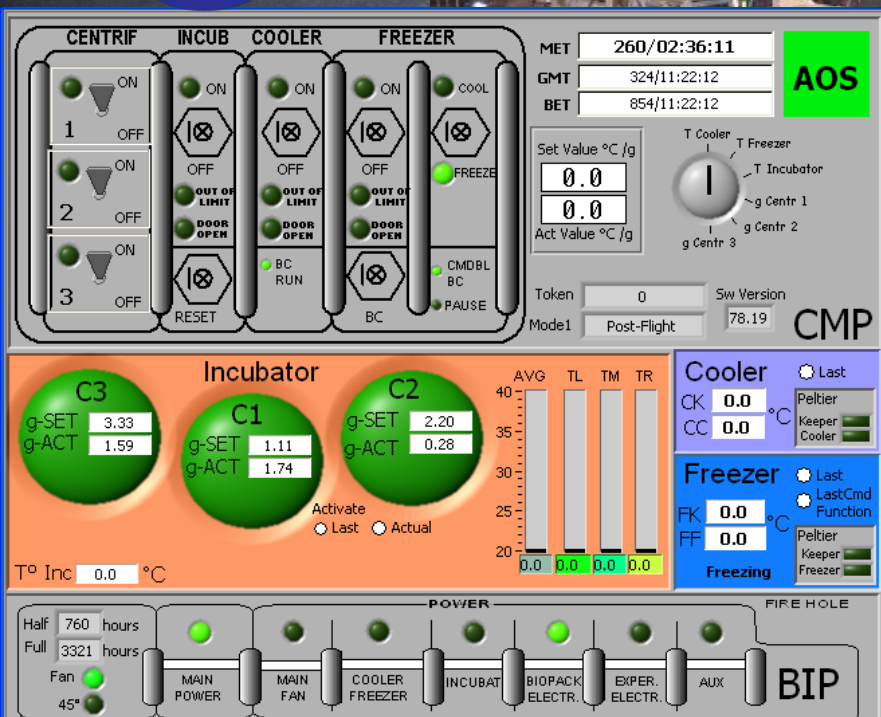
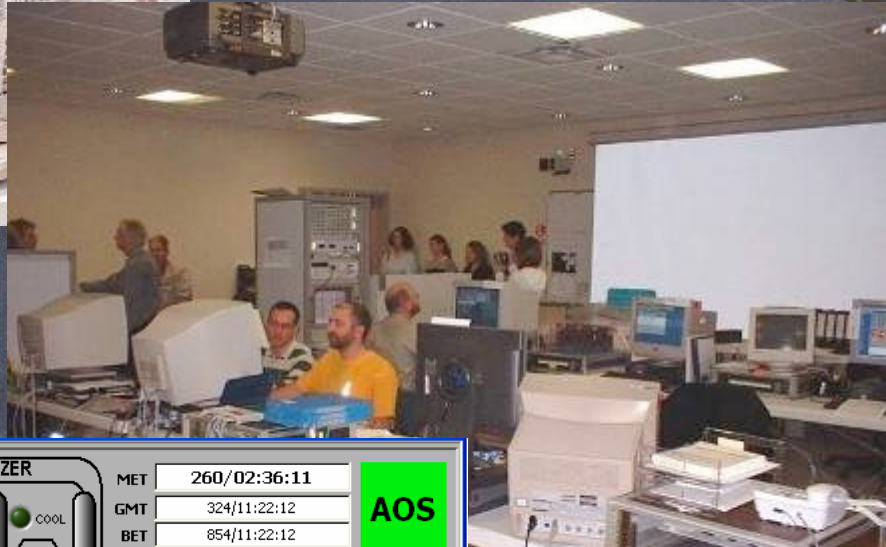
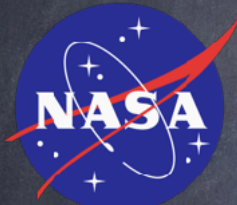
Ground Control Centers



Space Shuttle Missions



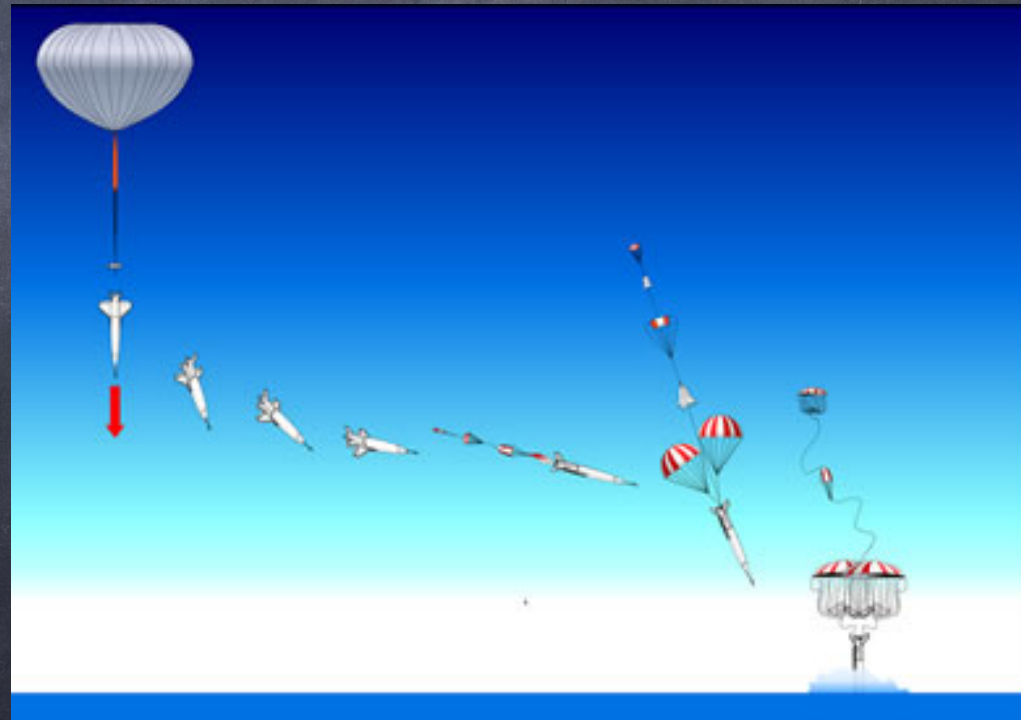
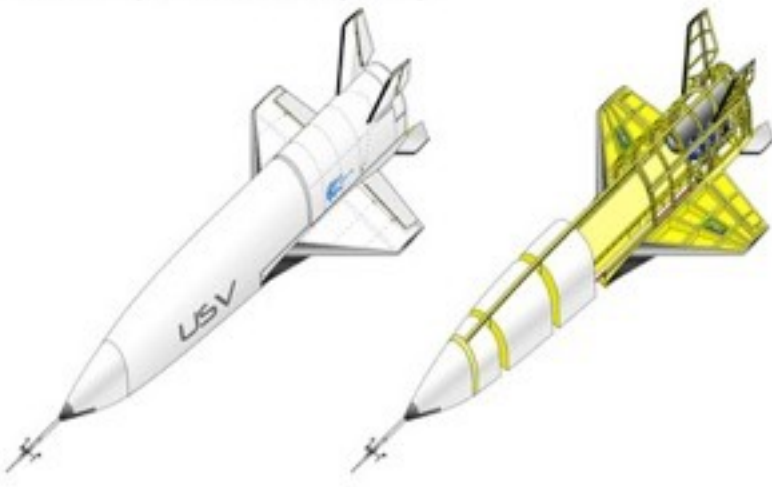
Control Center Design and Development
Mission Operations





MCC (Mission Control Center) Redesign and upgrade for USV (Unmanned Space Vehicle) Polluce Mission

USV - Unmanned Space Vehicle
FTB 1 - Flight Test Bed #1
3D views (with and without panels)



Avio Rocket Engine Firing Test Control



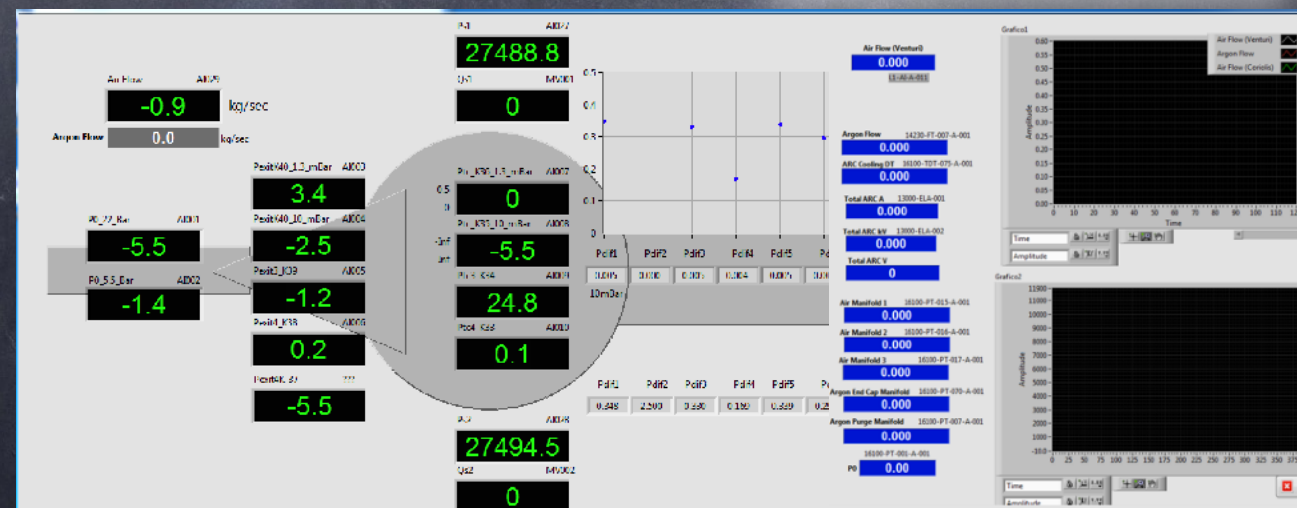
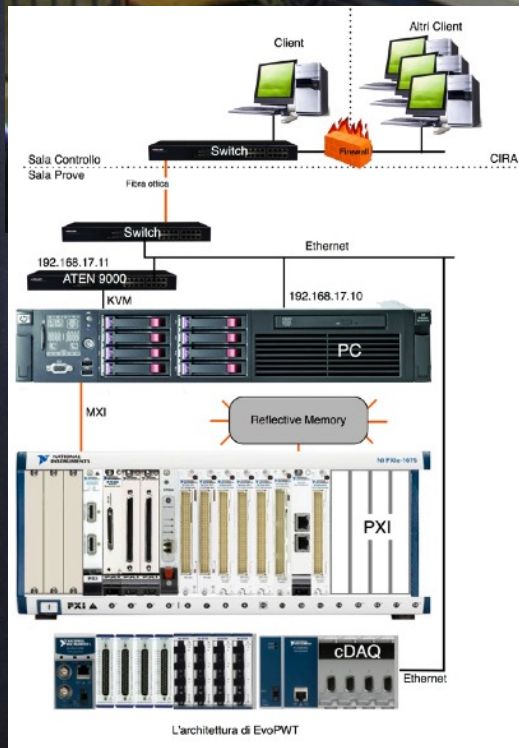
[illegible]



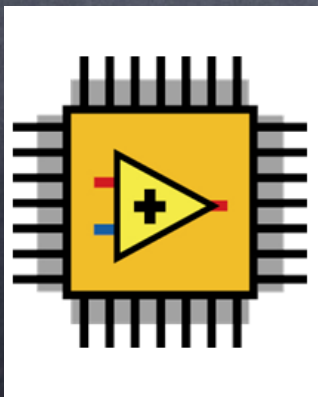
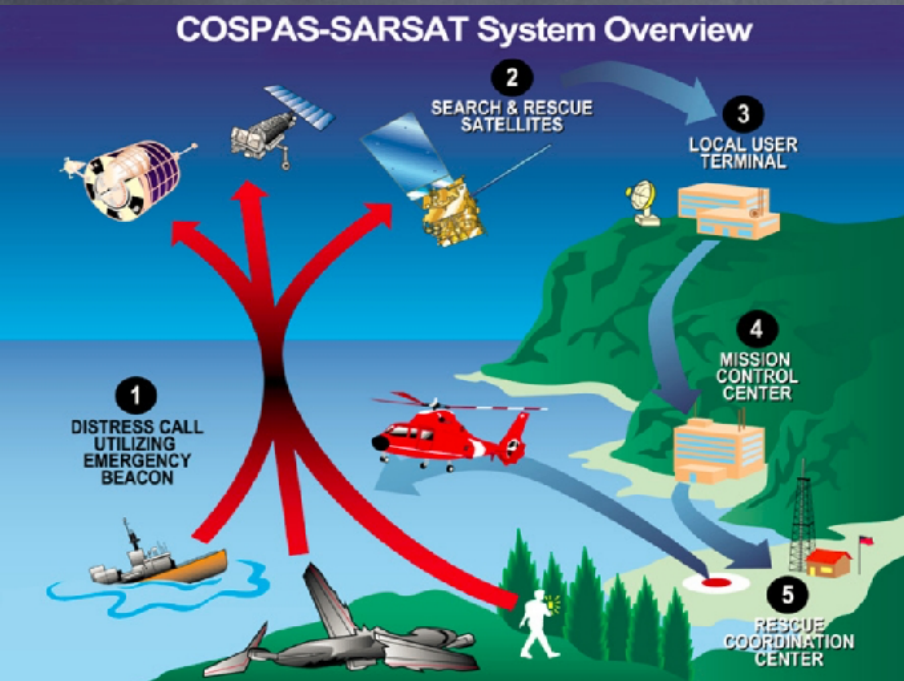
Italian Aerospace Research Centre



PWT (Plasma Wind Tunnel) Data Acquisition System



MEOLUT

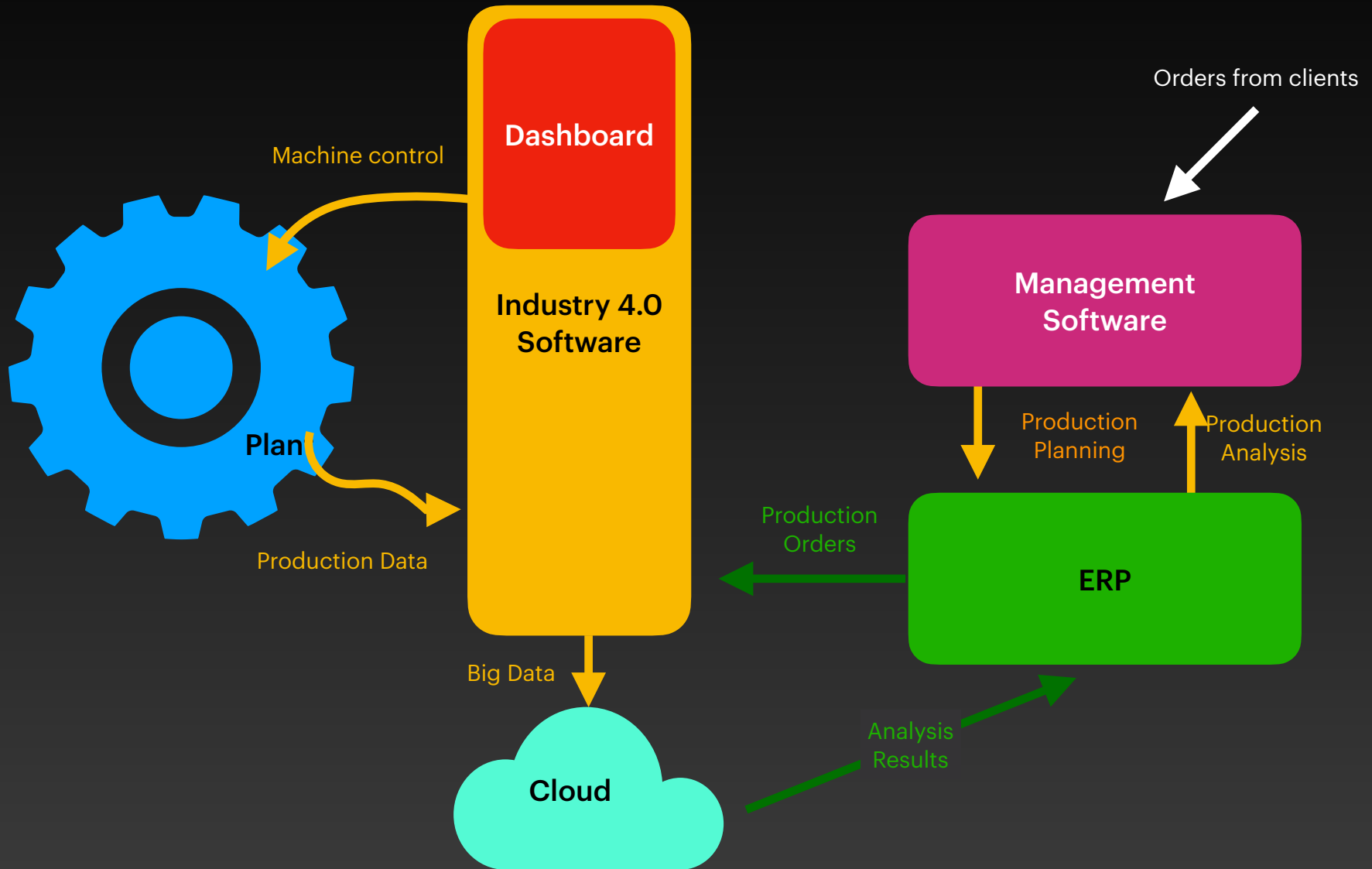


- FPGA/PXI System to analyze signals coming from Beacons

Industry 4.0

Interconnections

Interconnection



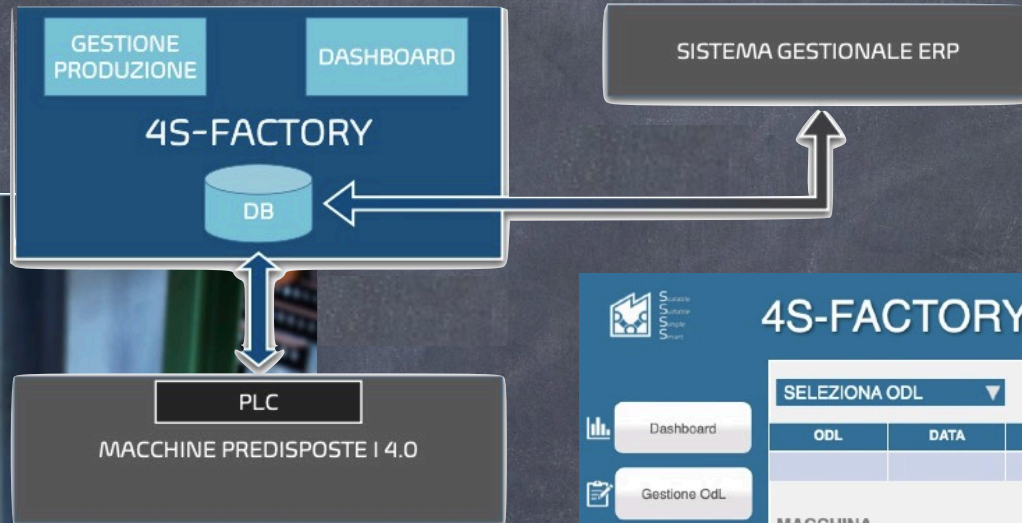
4S-FACTORY



Scalable
Suitable
Simple
Smart

Integrated Management
Tool to interconnect
industrial machinery

IN COOPERATION WITH
AGILAE



4S-FACTORY user

SELEZIONA ODL ▾

ODL	DATA	CLIENTE	COD.ARTICOLO	Q.

MACCHINA

COD.ARTICOLO	QUANTITA'

PARAMETRO 2	PARAMETRO 3

4S-FACTORY user GG/MM/AAAA HH/MM/SS

Dashboard

Gestione OdL

Programmazione Produzione

Avanzamento Produzione

Storico Produzione

Climate: downstairs

Humidity	Temperature
7%	64 °F

Climate: upstairs

Humidity	Temperature
5%	70 °F

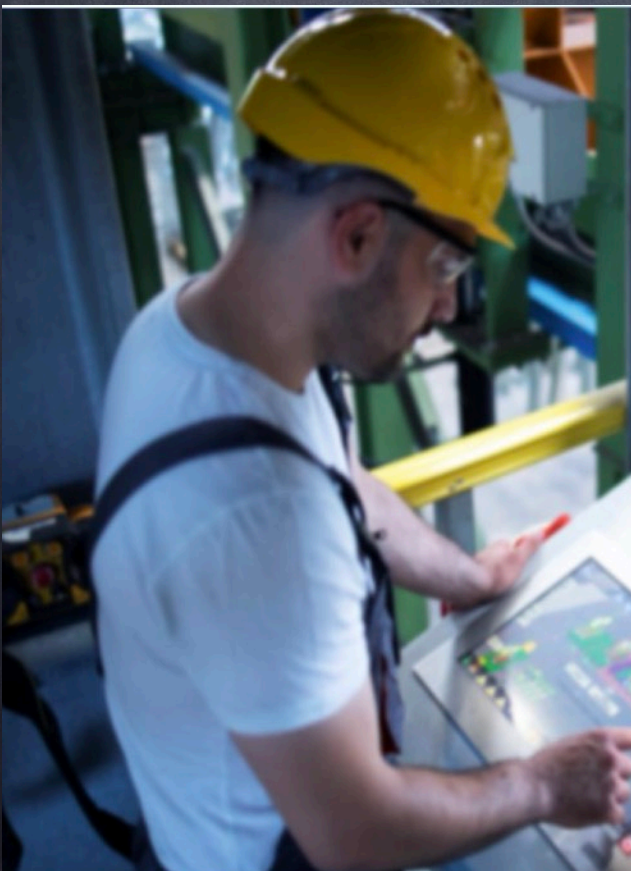
Climate: bedroom

Humidity	Temperature
20%	63 °F

HVAC

Temperature

00:00 02:00 04:00 06:00 08:00 10:00



Roncoroni SpA

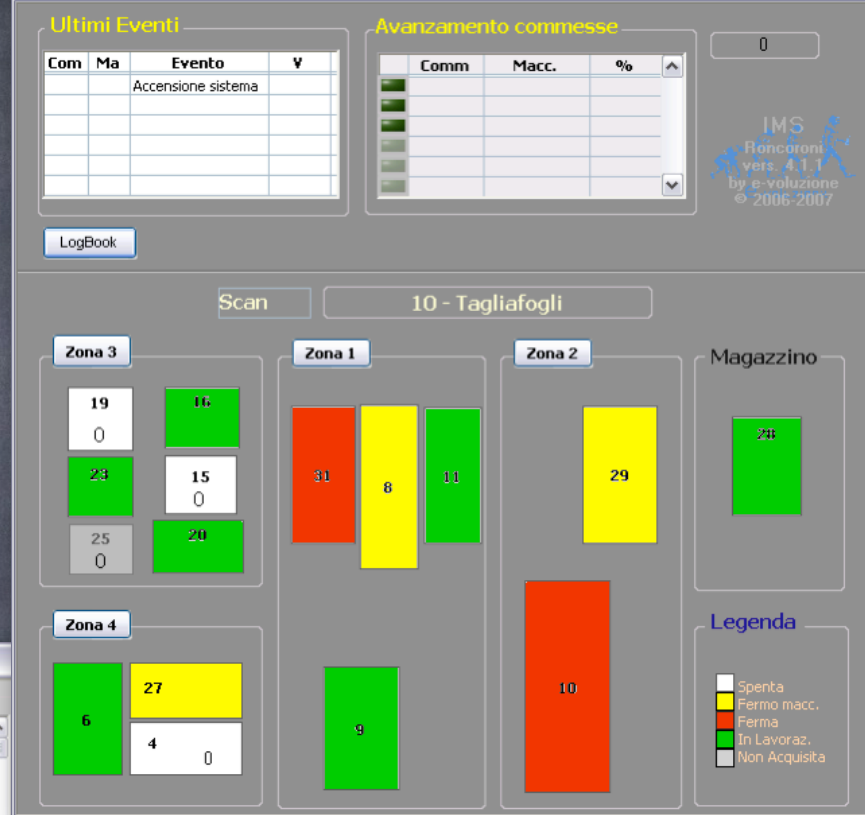
Real Time Production Monitoring system

Log Book rev. 94

Registro degli eventi

Data/Ora	Comm.	Op1	Op2	Macc.	Evento	Valore	Note
15/05/2006 6.44.00				9	Macchina alimentata		
15/05/2006 6.44.00	12035	11	1	10	Macchina alimentata		
15/05/2006 6.44.00	12035	11	1	10	Macchina alimentata		
15/05/2006 6.44.00	12035	11	1	10	Macchina alimentata		
15/05/2006 6.44.00	12035	11	1	10	Inizio lavorazione	Art:7	39070009, cartone g/g gr 650
15/05/2006 6.44.00	12035	11	1	10	Inizio lavorazione	Art:7	39070009, cartone g/g gr 650
15/05/2006 6.44.00	12035	11	1	10	Inizio lavorazione	Art:7	39070009, cartone g/g gr 650
15/05/2006 6.44.00	12035	11	1	10	Cod.op.1 non esistente		
15/05/2006 6.44.00	12035	11	1	10	Cod.op.1 non esistente		
15/05/2006 6.44.00	12035	11	1	10	Cod		
15/05/2006 6.44.00	12035	11	1	10	Cod		
15/05/2006 6.44.00	12035	11	1	10	Cod		
15/05/2006 6.44.00	12035	11	1	10	Cod		
15/05/2006 6.44.00	12184	3	25	11	Mac		
15/05/2006 6.44.00	12184	3	25	11	Mac		
15/05/2006 6.44.00	12184	3	25	11	Mac		
15/05/2006 6.44.00	12184	3	25	11	Inizi		
15/05/2006 6.44.00	12184	3	25	11	Inizi		
15/05/2006 6.44.00	12184	3	25	11	Inizi		
15/05/2006 6.44.00				27	Mac		

Calcolo metri e minuti x Mese o settimana

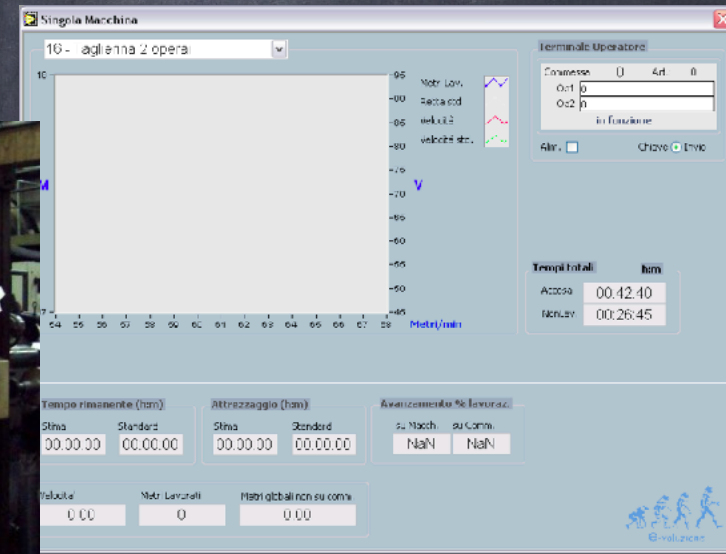


Display

Filtra

Ordina

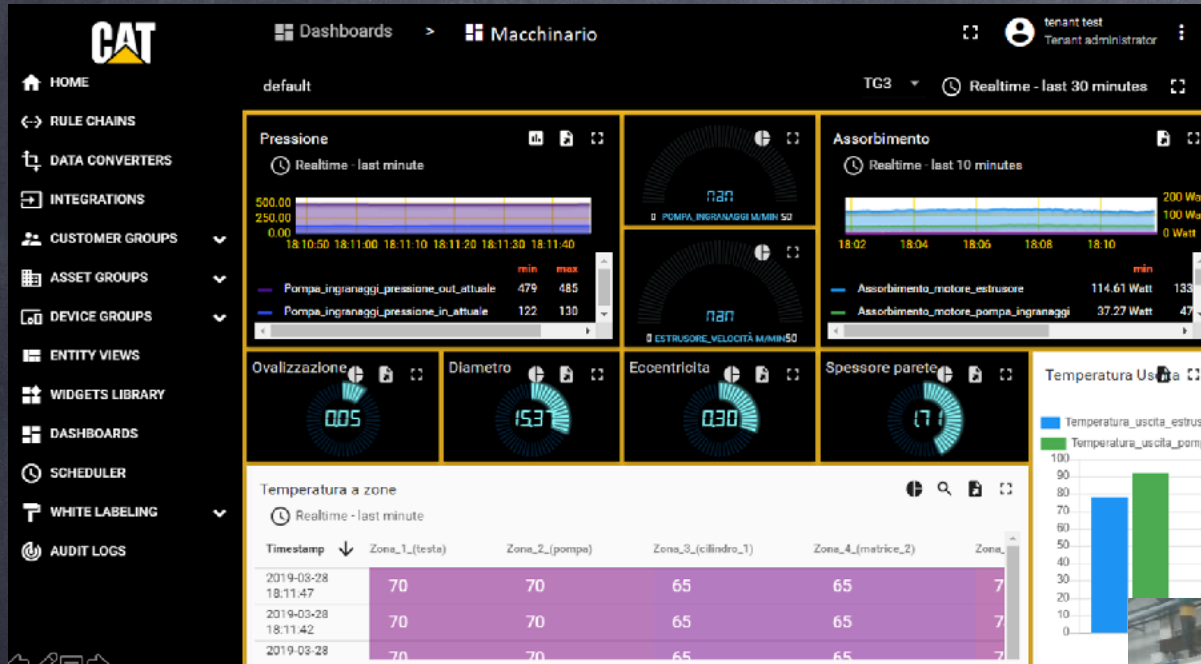
Output



Plant ovens monitoring & analysis



Caterpillar Fluid Systems



- Big data acquisition
- Whole plant KPIs



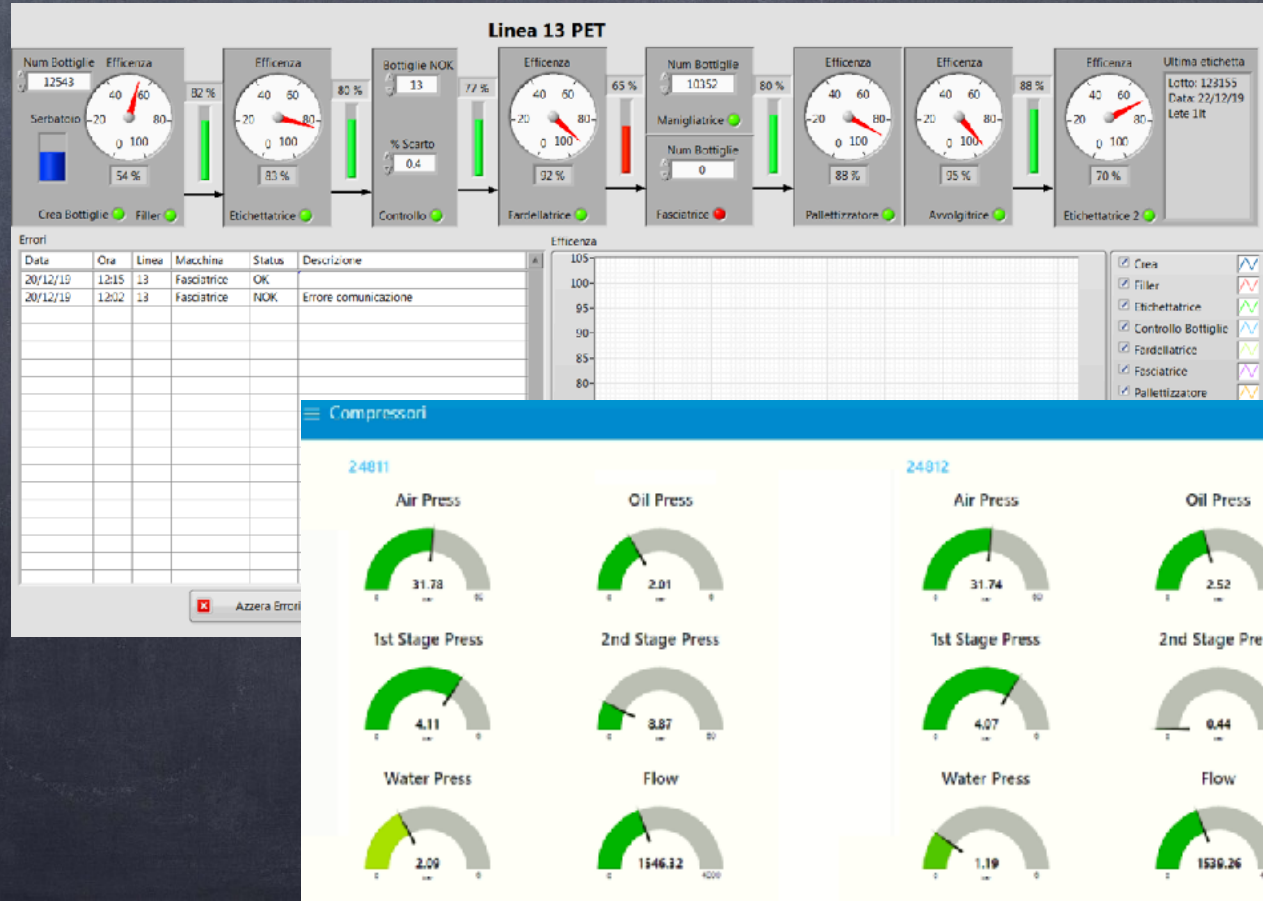
Hewlett Packard
Enterprise



Acqua Lete



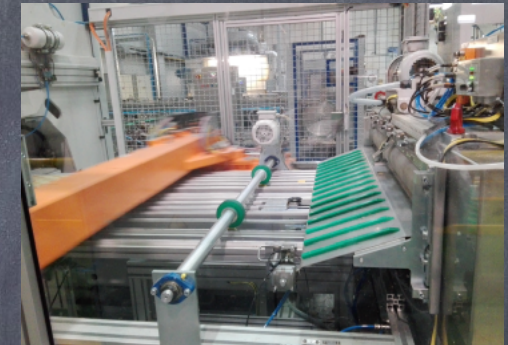
IoT plant data acquisition system



Tecnocap



P35 Linea 1				P35 Linea 2				P35 Linea 3			
PRESS				PRESS				PRESS			
Emergency Off Mode	●	Initialization Active	●	Emergency Off Mode	●	Initialization Active	●	Emergency Off Mode	●	Initialization Active	●
Automatic Mode	●	Setup Mode	●	Automatic Mode	●	Setup Mode	●	Automatic Mode	●	Setup Mode	●
Wait for External Control	●	Ready	●	Wait for External Control	●	Ready	●	Wait for External Control	●	Ready	●
Press in Prod	●			Press in Prod	●			Press in Prod	●		
Error Code	▲	Timestamp	▲	Error Code	▲	Timestamp	▲	Error Code	▲	Timestamp	▲
0		N/A		0		N/A		0		N/A	
0		N/A		0		N/A		0		N/A	
0		N/A		0		N/A		0		N/A	
0		N/A		0		N/A		0		N/A	
0		N/A		0		N/A		0		N/A	
MAIN DRIVE				MAIN DRIVE				MAIN DRIVE			
Main Drive ON	●	Main Drive OFF	●	Main Drive ON	●	Main Drive OFF	●	Main Drive ON	●	Main Drive OFF	●
Manual Mode	●	By Motor Mode	●	Manual Mode	●	By Motor Mode	●	Manual Mode	●	By Motor Mode	●
Clutch ON	●	Clutch OFF	●	Clutch ON	●	Clutch OFF	●	Clutch ON	●	Clutch OFF	●
		Flywheel Stopped	●			Flywheel Stopped	●			Flywheel Stopped	●
Strokes/Min		181		Strokes/Min		149		Strokes/Min		206	
Total Sheets		839640		Total Sheets		461335		Total Sheets		703379	



PRESS B				Kuka	
Automatic Mode	●	Format	63RSB	Item	16
Wait for External Control	●	Strokes/Min	192	Item Description	Nr Fermi
Setup Mode	●	Caps/Min	0	Customer	3156
Emergency Off Mode	●	Caps Produced (Th)	28080	Lot Number	
		Caps Produced (Bh)	449268	Caps Produced	
				Caps to Complete	
Scraps (Th)	0.5 %	Automatic Mode:	100.0 %		
Scraps (Bh)	0.0 %	External Control:	0.0 %		
TLC Scraps (Th)	0	Setup Mode:	0.0 %		
TLC Scraps (Bh)	0	Emergency:	0.0 %		

Scatole in uscita - Baia 1				Scatole in uscita - Baia 2			
Articolo	535P182/6X7-30F	Formato		Articolo	480P16480X7-400	Formato	
Descrizione Articolo	BARESA PESTO GENOVESE	Descrizione Articolo	CONAD ALICI				
Cliente	ELLI POLLI S.P.A.	Cliente	VIDYA SRL				
Lotto	20-1722-1	Lotto	20-0546-1				

Industry 4.0

Consultancy, OpEx/6Sigma, Security

Industry Consultancy

- Expert report on industry 4.0 or other public funded projects
- Innovation Management
- Security Management and procedures
- ISO standards
- CE Certifications
- Training

OpEx/6-Sigma Consultancy

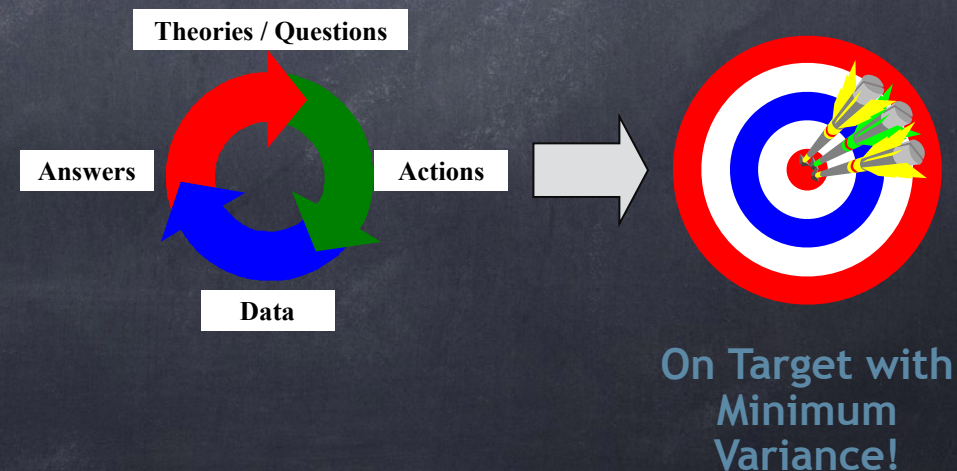
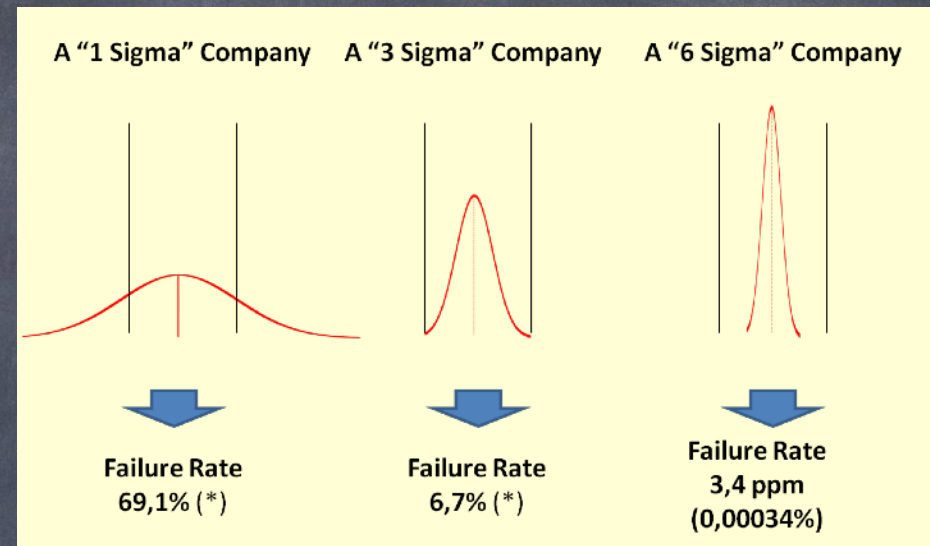
- Best Internal Quality
 - No Design Reloops,
 - Zero Scraps,
 - No Reworks,
 - Highest Efficiency,
 - Lowest Costs

- Best External Quality

- Product Leadership = Innovation + Quality + Reliability + Best Value.

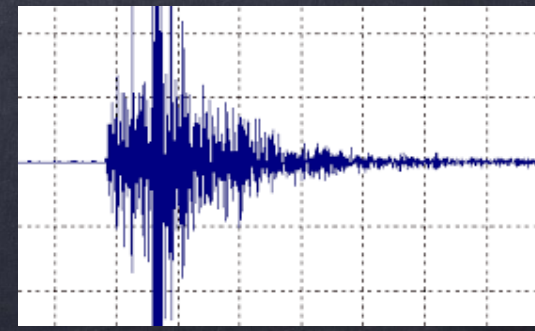
- OpEx – Six Sigma:

- to use the appropriate tool, ...
 - at the appropriate time, ...
 - in the appropriate manner, ...
 - to guide engineering work.



Security

- Security Day
 - Training on Security procedures
 - Psychological experience
 - Training on Plant Security
- SicurQuest:
 - Educational game for safety and emergency management.
 - Target: schools, public bodies, companies
 - Recipients: pupils, teachers, workers
 - Roles: emergency coordinator, first aid worker, people assigned to specific tasks, ecc.

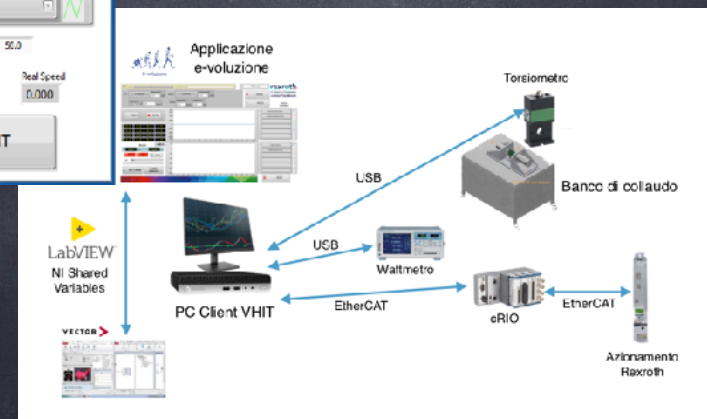
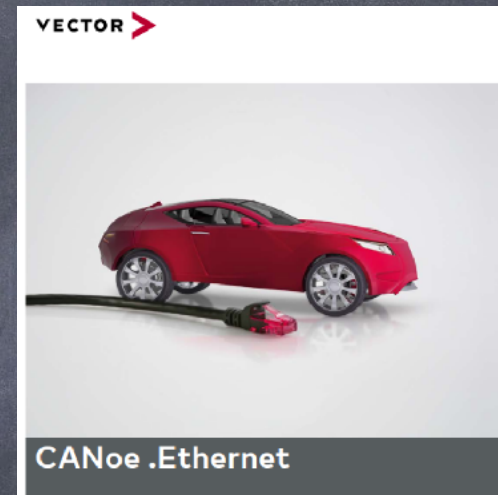
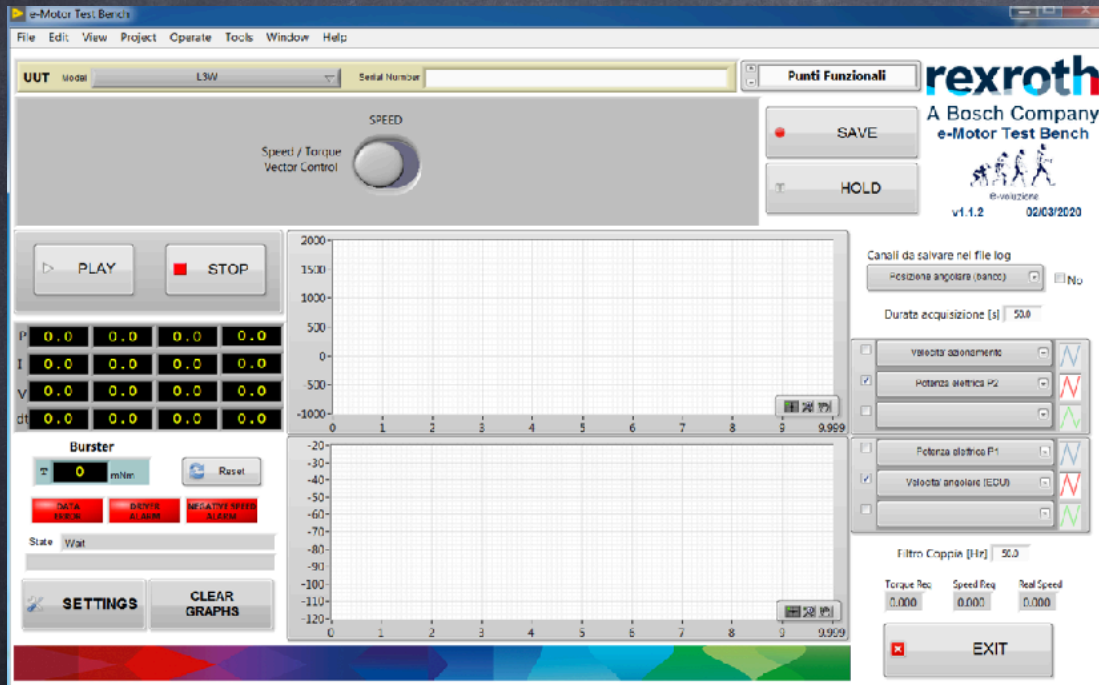


Test Benches

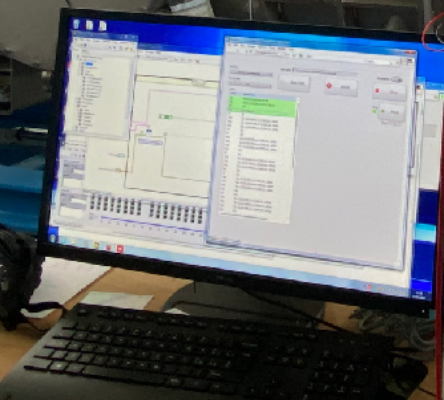
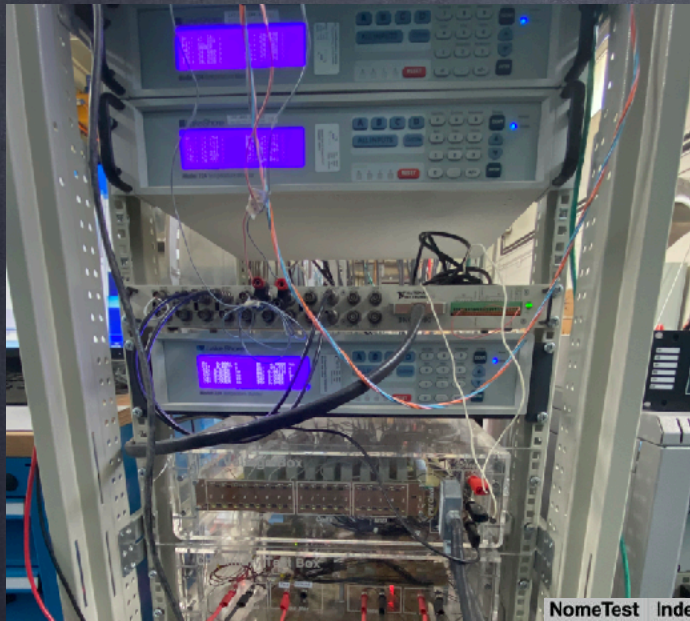
Bosch Rexroth

rexroth
A Bosch Company

Test bench software for e-Cars Engine components

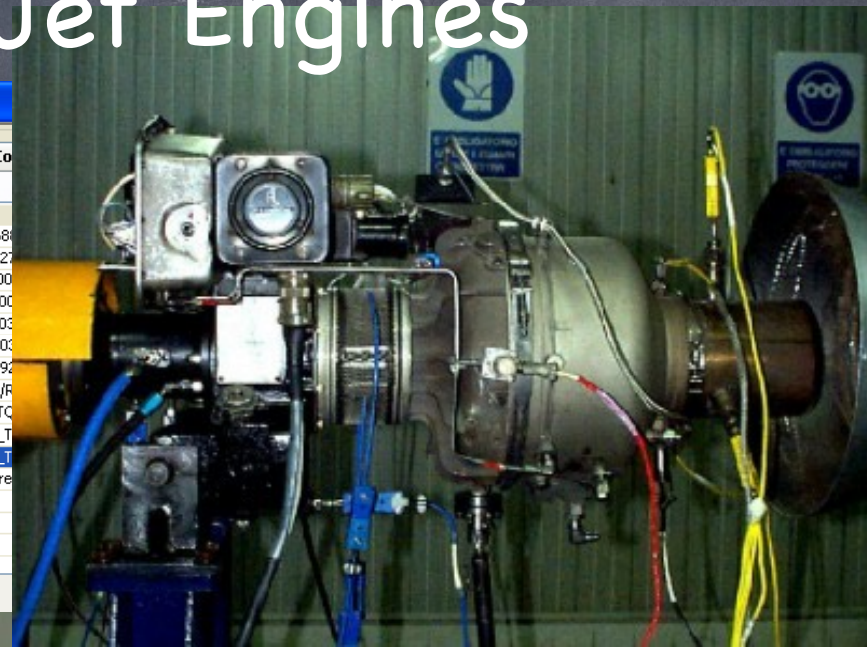
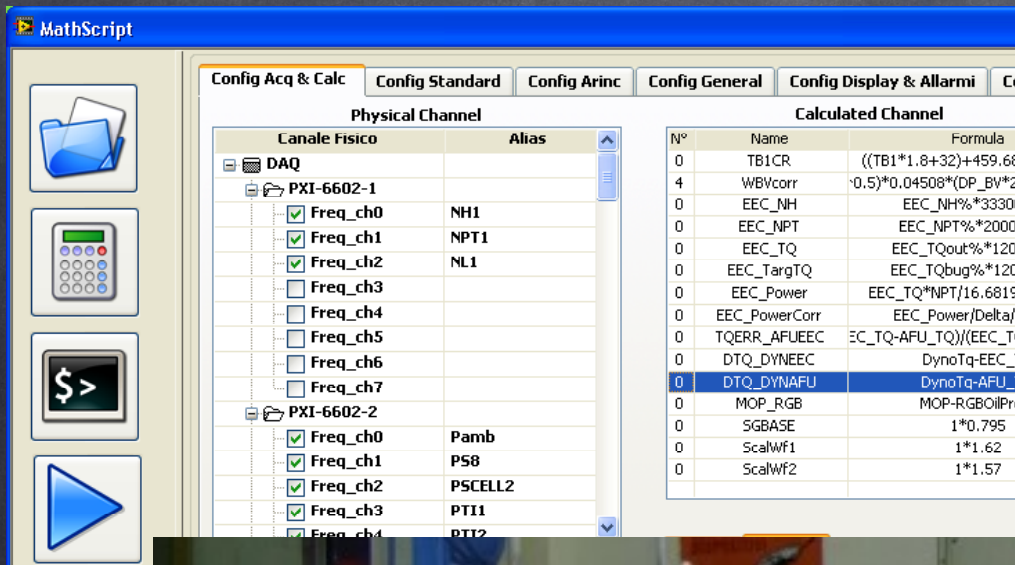


Test equipment for SYS-100 FAIR Synchrotron

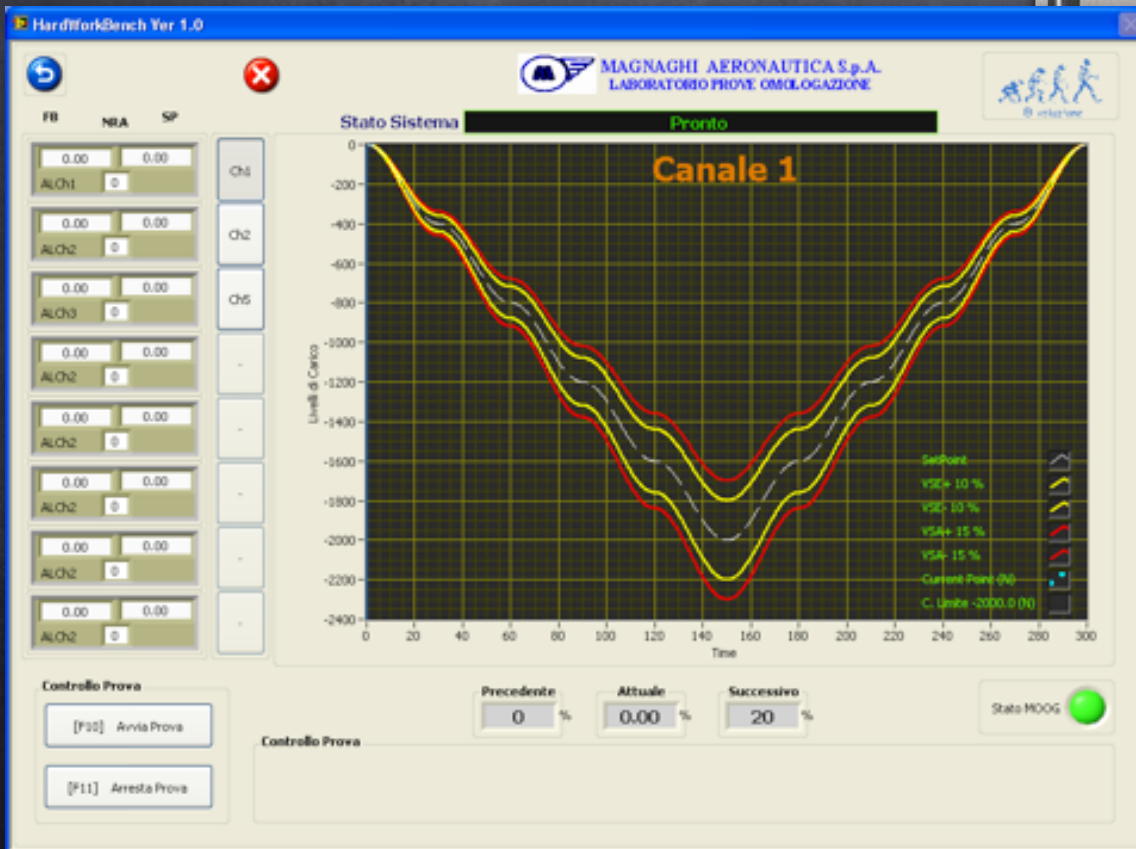


NomeTest	Index	Comando	Parametri	Commenti
-- Inizio misure alta tensione				
HV		SO		tutti i rele' nella condizione di Diseccitati
HV		SG	B1,B2,B3,B4,B5,E6,B7,B8	Rele a GND
HV		SG	V0,V1,V2,V3,V4,V5,V6,V7,V8,V9	Rele a GND
HV		SF	HV	Switch Off HV
HV		VA	numElem,9	Modifica l'interfaccia utente (9 elementi dell'array)
HV		SO	B1-	diseccito B1-
HV	0	MG	B1+,0,120,500,1e+6,5000,B1-,30000	Switch to V, aspetta 0 sec, Megger per 120 sec Megger a 600 V, Valore atteso > 1e+8, poi lo mette a 0,attende 5 secondi, mette a GND il rele' iniziale, attende 30 secondi,lo diseccita
HV	0	MG	B1+,0,120,1500,1e+5,5000,B1-,30000	Megger a 1500 V
HV	0	MG	B1-,0,100,2000,1e+5,5000,B1+,30000	Megger a 1500 V

Avio Test bench for Jet Engines



Landing Gears Static Test Bench



Avio

NGV Fluxometry Test bench



Flow Test Bench

Anagrafica Test

Operatore: Admin

Matricola: qwerty

Part number: Rotorica

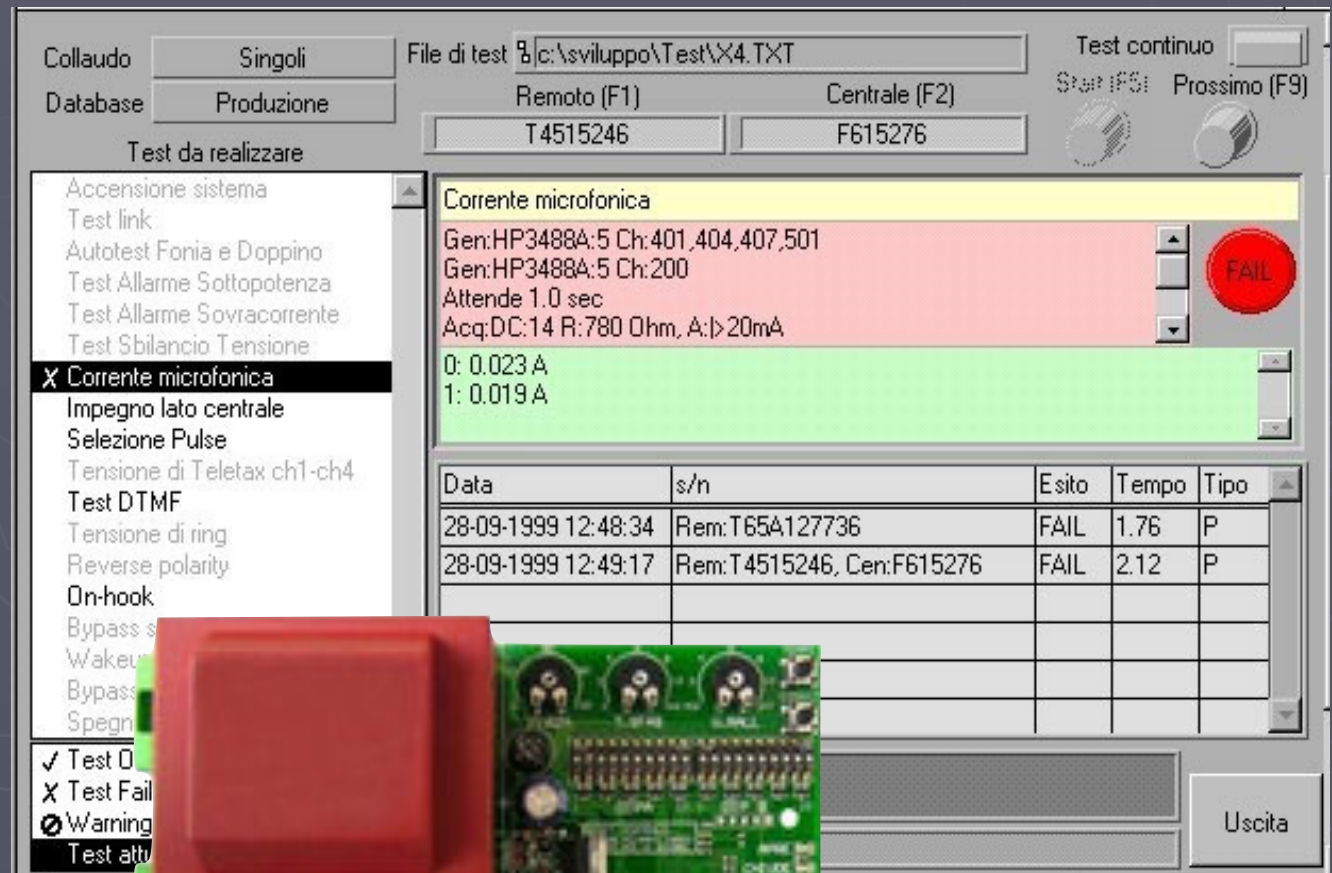
Serial Number: 1234565

UN: 2344

About Prova di Flusso Calibr

Test in a Text: user-programmable test procedure

Test system to test voltages, currents, frequencies, etc. where the test programming is defined in a text file and the results are saved on a DB



WASHTEST

Washing machine test
according to EN-60456



Motor DeltaT Test Bench



DeltaT Ver. 0.3



WT210

Energy Consumption	1.4m
Current	0.000
Voltage	231.5
Active Power	200.0m

Belt ratio & Acq Time

Belt ratio	20.0
Acq. Time Rotor (ms)	2
Acq. Time Stator (ms)	2

Delta T & Motor Speed

Stator Value	Rotor Value
1.601 Ω	0.000 Ω
Motor Speed (Rpm)	
Stator Temp	Rotor Temp
0.015 $^{\circ}\text{C}$	NaN $^{\circ}\text{C}$

Consumo Acqua

Cold Water	Hot Water
0.0 Lit	0.0 Lit

Ciclo Lavaggio

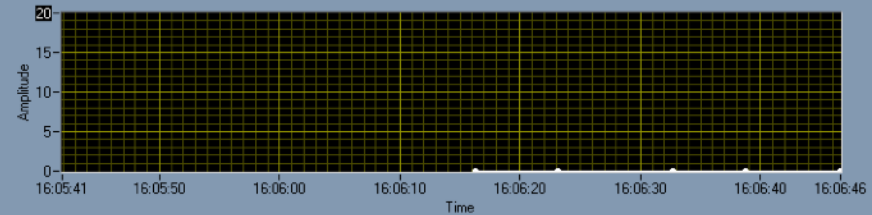
Ciclo1 First Meas

Pause

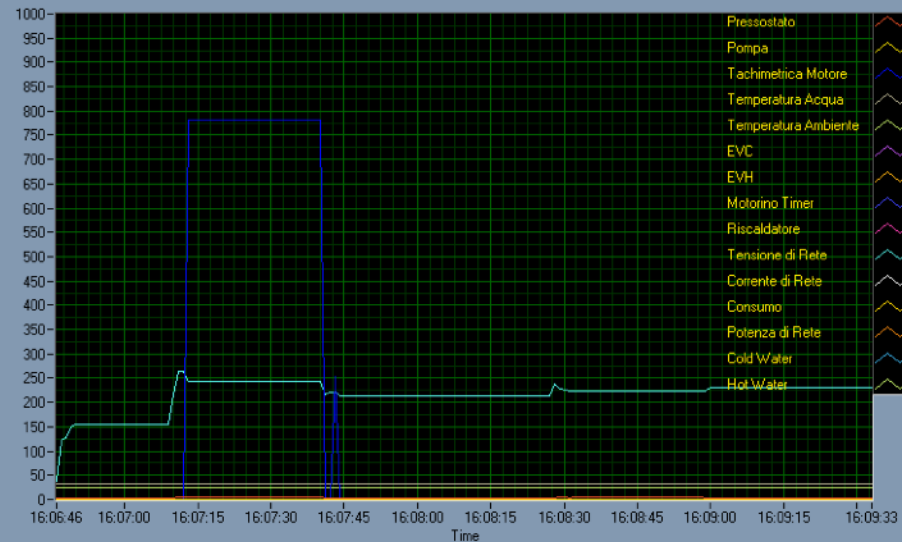
Measure

Stator Rotor

Delta T



Meas Data

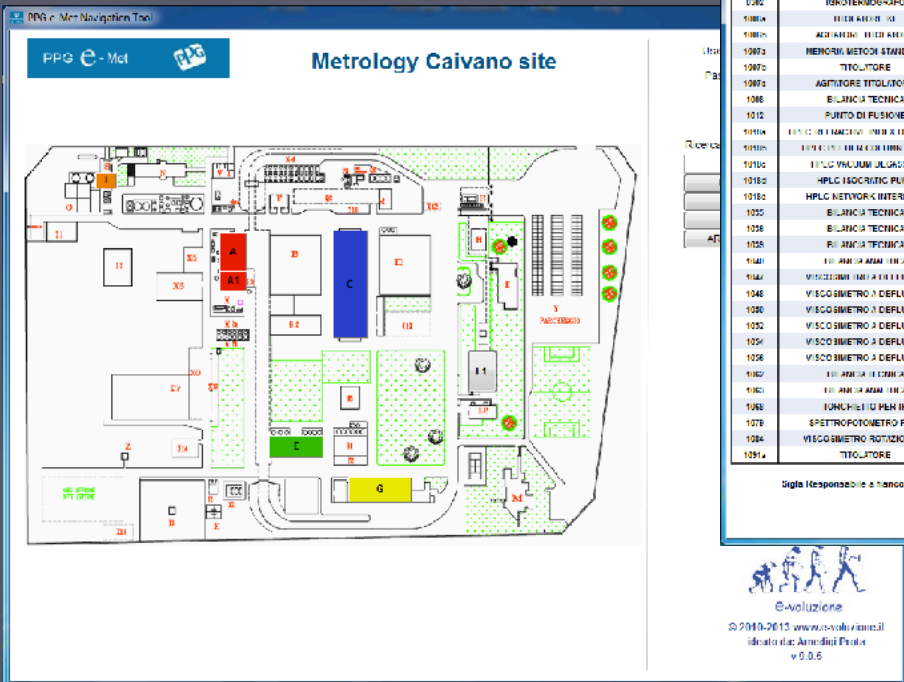


Marconi Mobile

- Mobile phones test bench



e-Met



PPG e-Met Navigation Tool

PIANO DI TARATURA STRUMENTI SITO DI CAIVANO

2° SEMESTRE 2013

4

PRIMA
PRECEDENTE

ID	DESCRIZIONE	LUGLIO				AGOSTO				SETTEMBRE				OTTOBRE				NOVEMBRE			
		01	02	03	04	01	02	03	04	01	02	03	04	01	02	03	04	01	02	03	04
1001	ALIMENTATORE CAVCO	X																			
1002	BAGNO TERMICO STATICO	X																			
1003	ISOTERMODIAPHRAGMA	X																			
1004	TERMOBLOCCO																				
1005	ACQUA REATTIVA																				
1006	MEMORIA METODI STANDARD	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1007	TITOLATORE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1008	AGITATORE TITOLATORE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1009	BILANCIA TECNICA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1010	PUNTO DI FUSIONE	X																			
1011	STRUMENTO DI MISURA DI PRESSIONE																				
1012	STRUMENTO DI MISURA DI TEMPERATURA																				
1013	STRUMENTO DI MISURA DI UMIDITA'																				
1014	STRUMENTO DI MISURA DI VISCOSITA'																				
1015	STRUMENTO DI MISURA DI DENSITA'																				
1016	STRUMENTO DI MISURA DI pH																				
1017	STRUMENTO DI MISURA DI CONDUCTIVITA'																				
1018	STRUMENTO DI MISURA DI POTENZIALE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1019	STRUMENTO DI MISURA DI TEMPERATURA AMBIENTALE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1020	STRUMENTO DI MISURA DI TEMPERATURA DI FUSIONE																				
1021	STRUMENTO DI MISURA DI TEMPERATURA DI VISCOSITA'																				
1022	STRUMENTO DI MISURA DI TEMPERATURA DI DENSITA'																				
1023	STRUMENTO DI MISURA DI TEMPERATURA DI pH																				
1024	STRUMENTO DI MISURA DI TEMPERATURA DI CONDUCTIVITA'																				
1025	STRUMENTO DI MISURA DI TEMPERATURA DI POTENZIALE																				
1026	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA AMBIENTALE																				
1027	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI FUSIONE																				
1028	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI VISCOSITA'																				
1029	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI DENSITA'																				
1030	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI pH																				
1031	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI CONDUCTIVITA'																				
1032	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI POTENZIALE																				
1033	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA AMBIENTALE																				
1034	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI FUSIONE																				
1035	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI VISCOSITA'																				
1036	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI DENSITA'																				
1037	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI pH																				
1038	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI CONDUCTIVITA'																				
1039	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI POTENZIALE																				
1040	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA AMBIENTALE																				
1041	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI FUSIONE																				
1042	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI VISCOSITA'																				
1043	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI DENSITA'																				
1044	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI pH																				
1045	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI CONDUCTIVITA'																				
1046	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI POTENZIALE																				
1047	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA AMBIENTALE																				
1048	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI FUSIONE																				
1049	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI VISCOSITA'																				
1050	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI DENSITA'																				
1051	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI pH																				
1052	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI CONDUCTIVITA'																				
1053	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI POTENZIALE																				
1054	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA AMBIENTALE																				
1055	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI FUSIONE																				
1056	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI VISCOSITA'																				
1057	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI DENSITA'																				
1058	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI pH																				
1059	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI CONDUCTIVITA'																				
1060	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI POTENZIALE																				
1061	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA AMBIENTALE																				
1062	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI FUSIONE																				
1063	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI VISCOSITA'																				
1064	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI DENSITA'																				
1065	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI pH																				
1066	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI CONDUCTIVITA'																				
1067	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI POTENZIALE																				
1068	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA AMBIENTALE																				
1069	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI FUSIONE																				
1070	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI VISCOSITA'																				
1071	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI DENSITA'																				
1072	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI pH																				
1073	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI CONDUCTIVITA'																				
1074	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI POTENZIALE																				
1075	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA AMBIENTALE																				
1076	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI FUSIONE																				
1077	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI VISCOSITA'																				
1078	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI DENSITA'																				
1079	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI pH																				
1080	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI CONDUCTIVITA'																				
1081	STRUMENTO DI MISURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI TEMPERATURA DI POTENZIALE																				

Siglia (responsabile a fianco della

IDENTIFICAZIONE STRUMENTO

Ente: M2 Elet
 Edificio: G

Fornitore: AEP
 Modello: Lab DMM

VO - S/S - S/T: SS
 Prima:

Scheda di controllo stru

e-Downtime

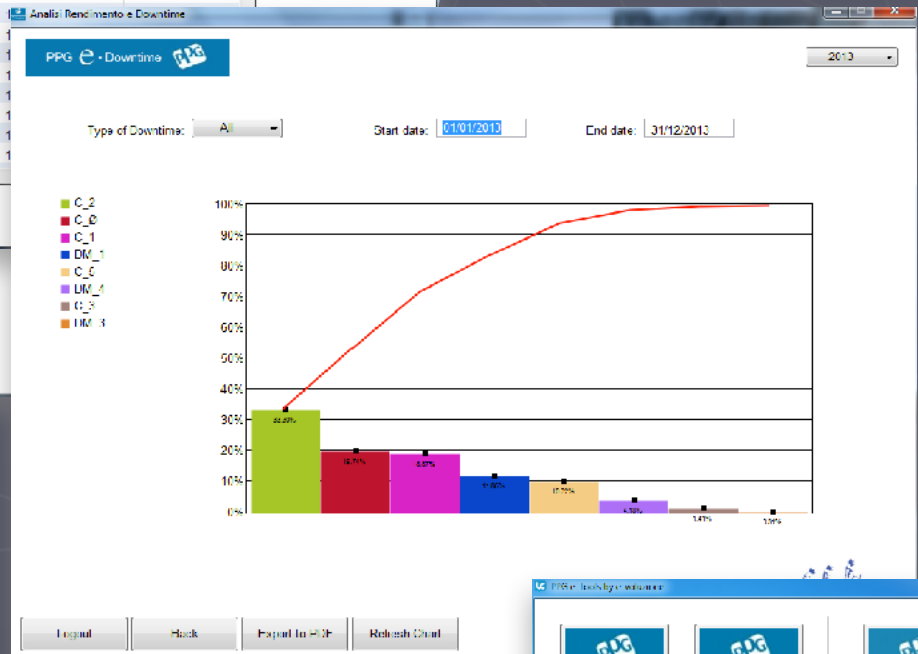


Analisi Rendimento e Downtime

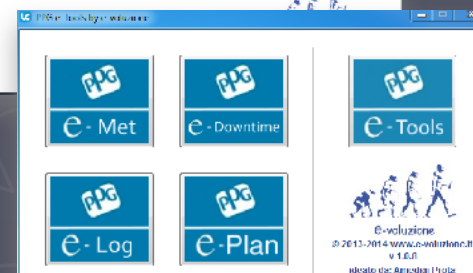
PPG e-Downtime 2013

Line	Typology	Subject	Week	Start date/hour	End date/hour
C_2	LOGISTICA	STATO MATERIE PRIME	1	02/01/2013 06:00	04/01/2013 16:15
C_1	LOGISTICA	STATO MATERIE PRIME	1	03/01/2013 06:00	04/01/2013 08:20
C_5	REPARTO	DATI ITANK SA 1007	1	03/01/2013 22:30	04/01/2013 05:30
C_5	REPARTO	MANCANO ADDETTI	1	04/01/2013 19:30	05/01/2013 03:30
C_0	REPARTO	DILUIORE LINEA OCCUPATO	1	05/01/2013 08:00	05/01/2013 10:00
C_1	REPARTO	MANCANO ADDETTI	1	06/01/2013 08:20	06/01/2013 10:15
C_0	REPARTO	MANCANO ADDETTI	1	06/01/2013 18:00	06/01/2013 23:59
C_2	REPARTO	DILUIORE LINEA OCCUPATO	2	07/01/2013 00:00	13/01/2013 23:59
C_0	REPARTO	MANCANO ADDETTI	2	07/01/2013 00:00	08/01/2013 10:10
C_1	REPARTO	MANCANO ADDETTI	2	08/01/2013 11:45	08/01/2013 21:45
C_0	REPARTO	MANCANO ADDETTI	2	09/01/2013 16:05	09/01/2013 18:05
C_0	REPARTO	MANCANZA AUTOCALVISTIA	2	09/01/2013 22:00	10/01/2013 04:30
C_1	REPARTO	DILUIORE LINEA OCCUPATO	2	10/01/2013 01:50	11/01/2013 16:30
C_5	REPARTO	MANCANO ADDETTI	2	10/01/2013 17:30	11/01/2013 04:30
C_5	MTZ	TRAMOCOCIA TR-1002	2	11/01/2013 06:00	11/01/2013 15:20
C_1	MTZ	COMP	2	11/01/2013 17:10	11/01/2013 19:55
C_2	REPARTO	MANCANO ADDETTI	2	11/01/2013 22:15	11/01/2013 23:30
C_0	REPARTO	MANCANO ADDETTI	2		
C_1	REPARTO	DILUIORE LINEA OCCUPATO	2		
C_2	REPARTO	DILUIORE LINEA OCCUPATO	2		
C_2	REPARTO	MANCANO ADDETTI	2		
C_5	MTZ	POSTRILATOR_SA_1002	3		
C_0	REPARTO	MANCANO ADDETTI	3		
C_2	REPARTO	MANCANO ADDETTI	3		
C_5	REPARTO	MANCANO ADDETTI	3		

Logout Back Export to Excel Unconfirm DT



- Downtime History
- Downtime Analysis
- Downtime impact on production
- Secure Remote DB



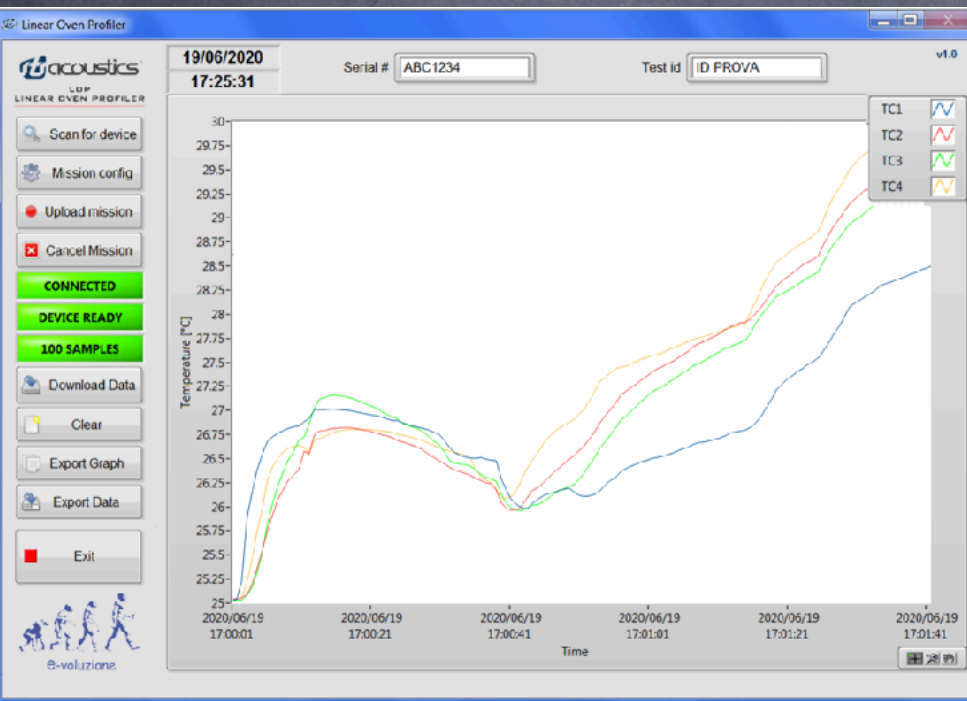
Measurement & Control



LOP

Linear Oven Profiler

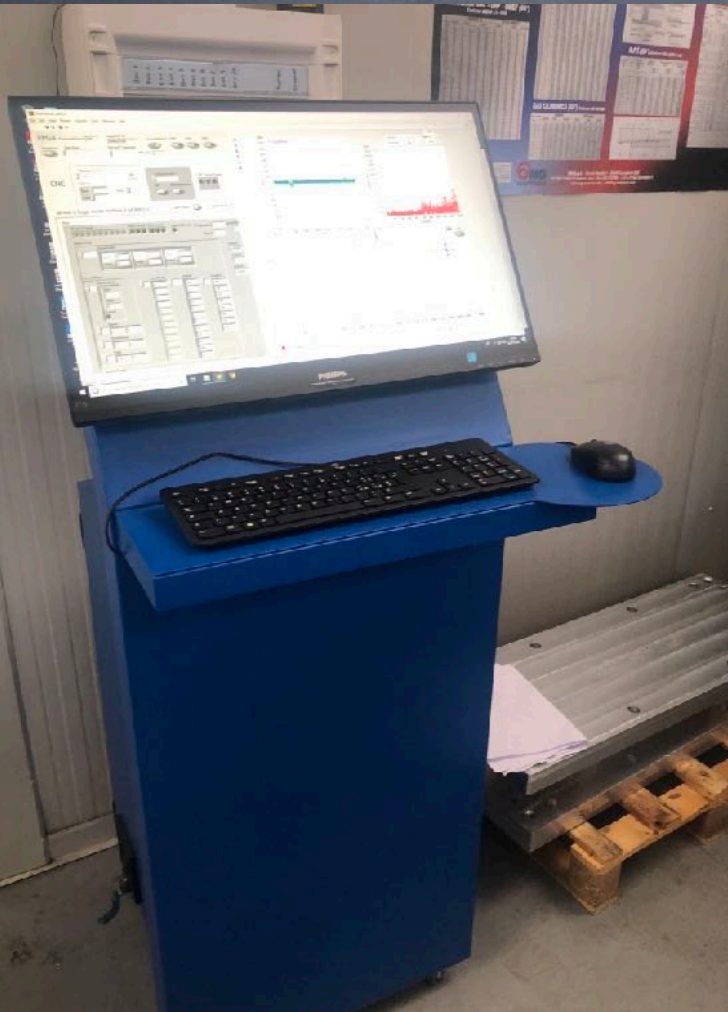
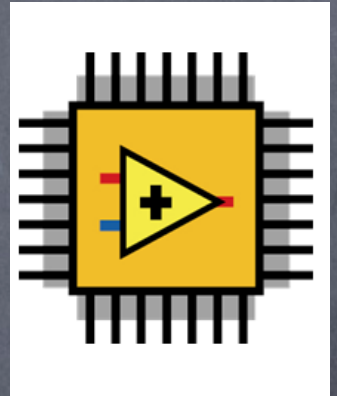
Measure internal temperature in linear ovens with a complete temperature profile output



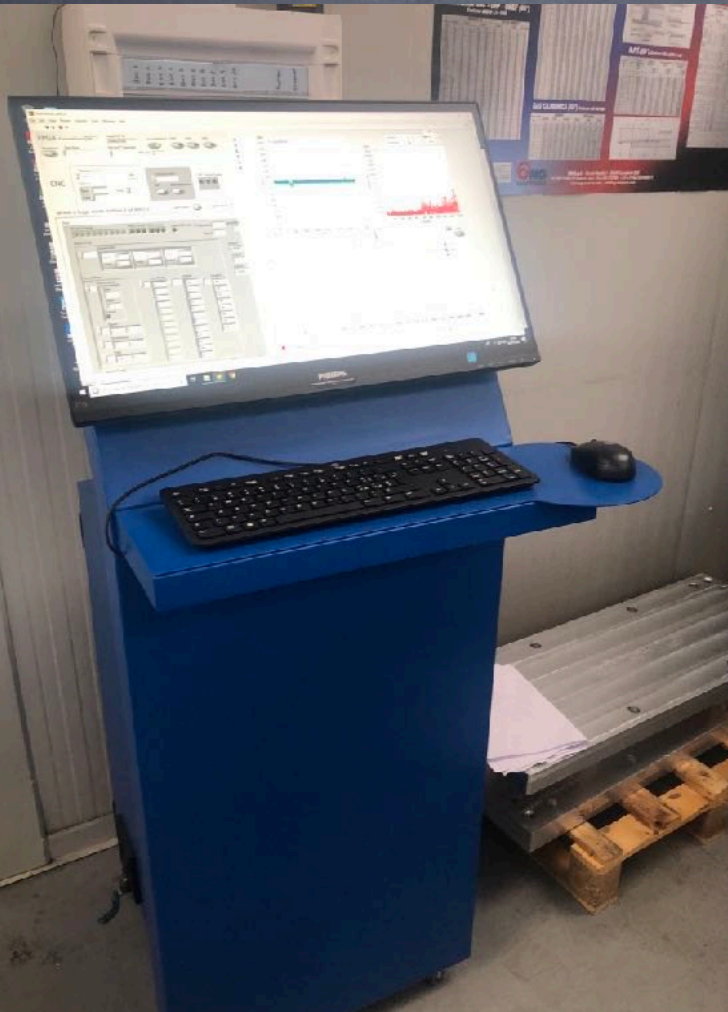
Chattering RealTime Control



Real time control of
CNC speed to reduce
Chattering effects



ERMAS



Realisation of a new additive machine to create 3D printer with deposition

Whirlpool

Timer Programming



Variant

461971074161
461971074171
461971075641
461971076241
461971079191
461971079201
461971079211
461971079212
461971081171
461971081521
461971081781
461971081791
461971081792
461971082061
461971087961
461974480041
461974480051
461974480061
461974480071
461974480081
461974480091
461974
461974
461974
461974
4619

Timer

da programmare **1** programmati **0** da fare **0**

Timer **12NC TSW**

Operazioni da effettuare

attesa tre secondi
scrive il file variant nella EPROM
verifica 1 EPROM
scrive il codice del variant
verifica il codice del variant
scrive dimensione vasca
verifica dimensione vasca
scrive il dato di conferma programmazione
controllo conferma programmazione

Timers

Gamma
AlphaInvensys
Omega
AlphaElbi
SC1

Stampa richiesta

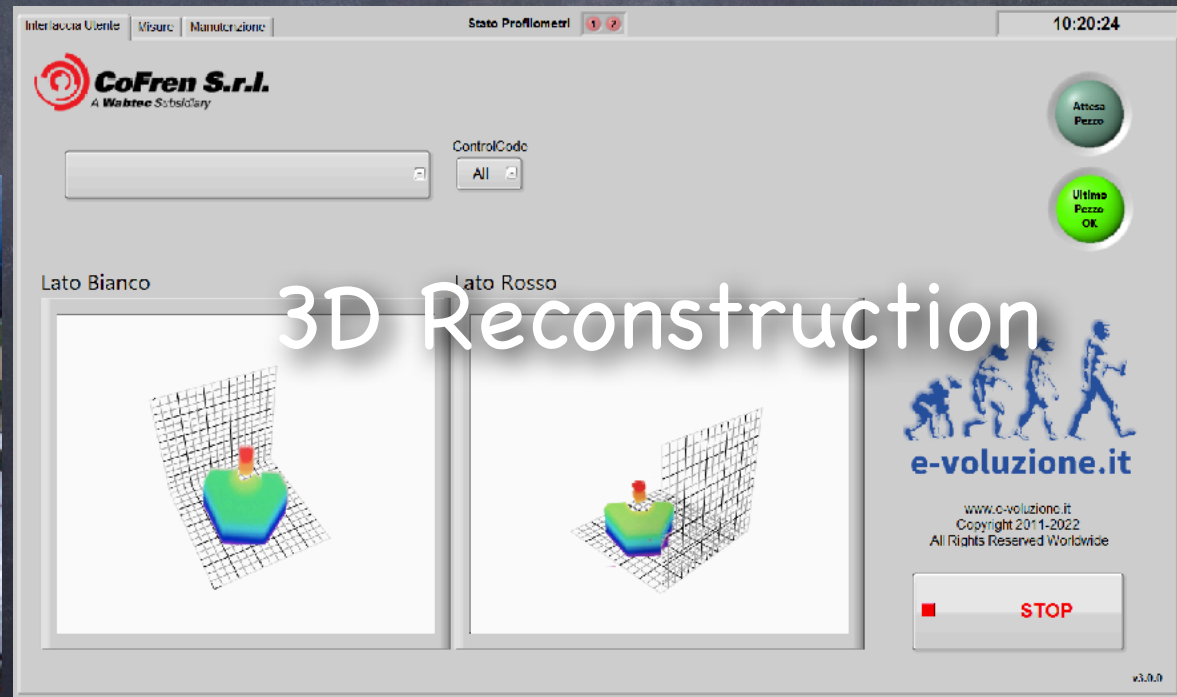
Done



Quality Control

Cofren-Wabtec

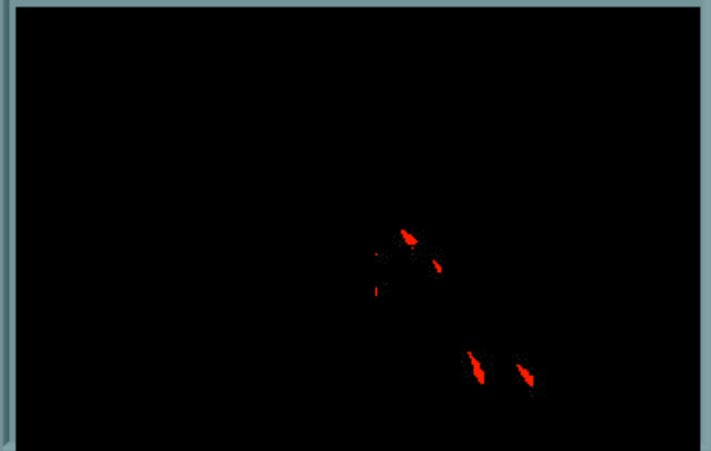
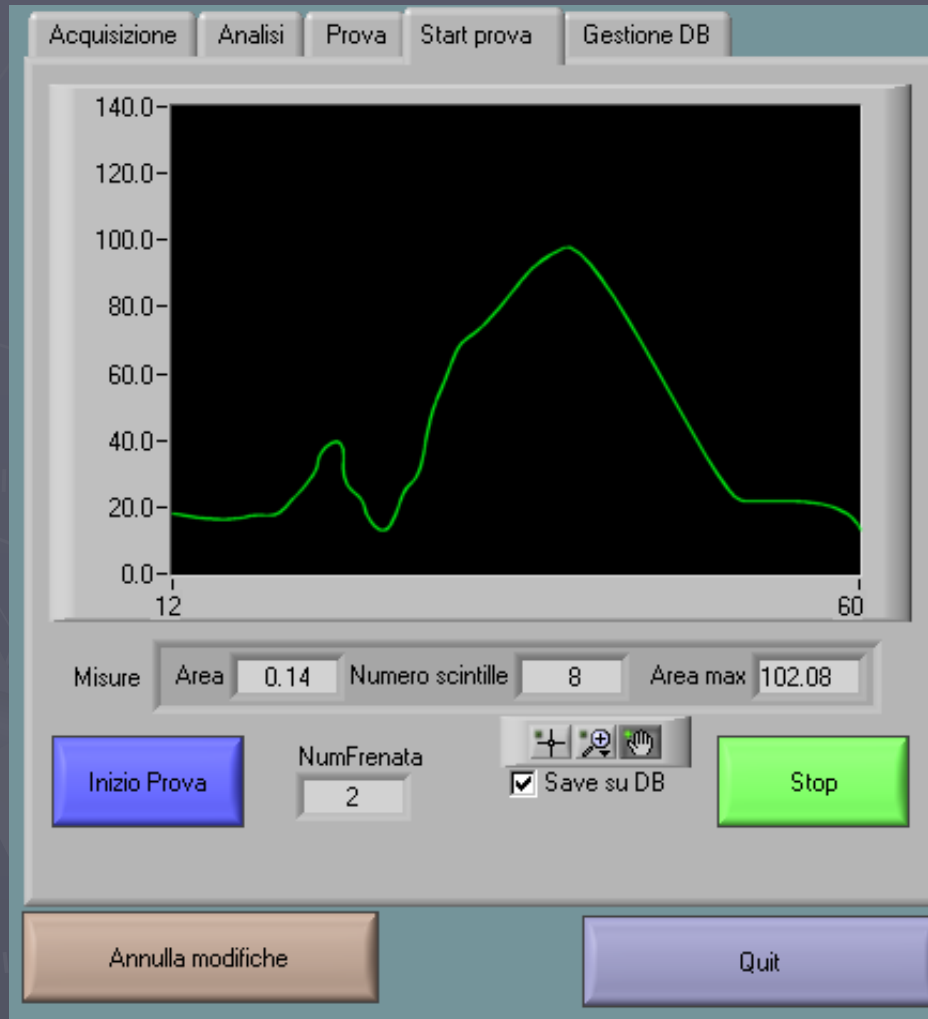
Laser Vision System
Dimensional control
100% in line



Train wheel brakes sparking test

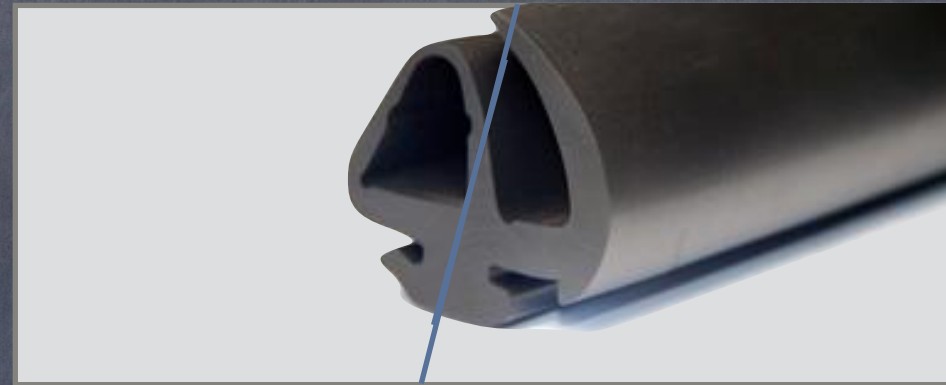
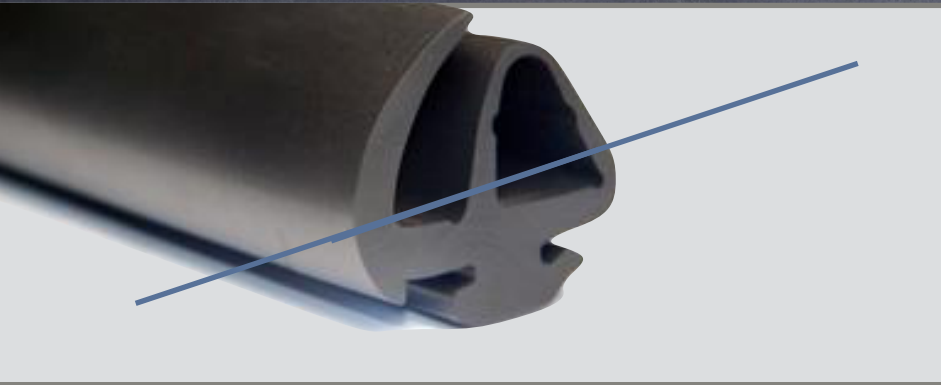


Wabtec



ATG – Extruded plastics

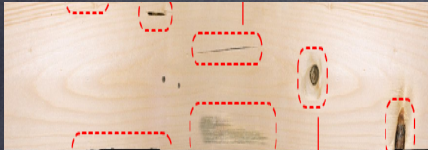
Quality Control



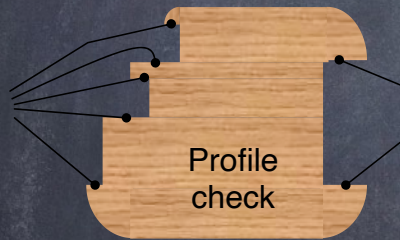
VISION SYSTEM



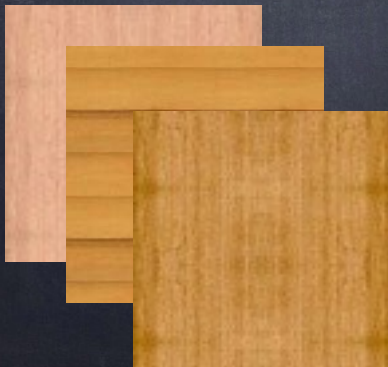
Prosit – Wood Quality



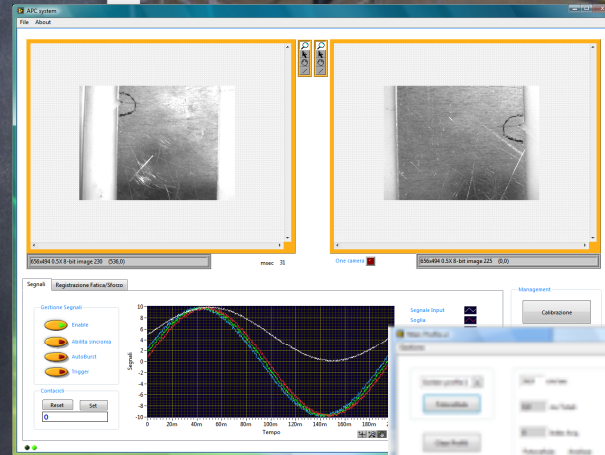
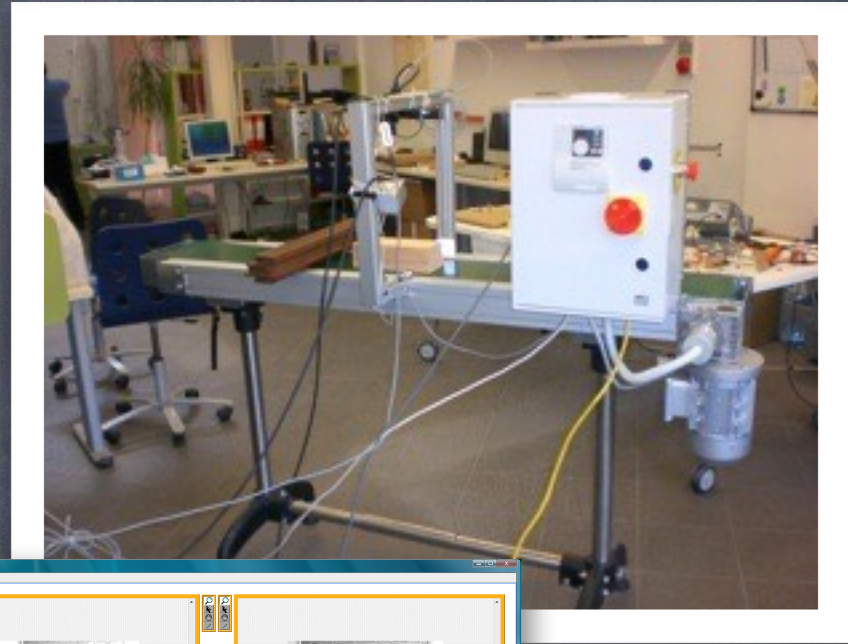
Defects



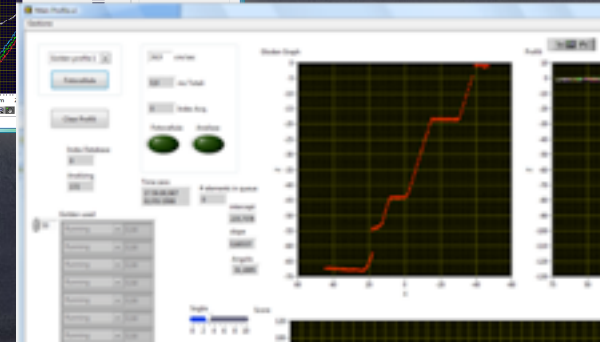
Profile



Color

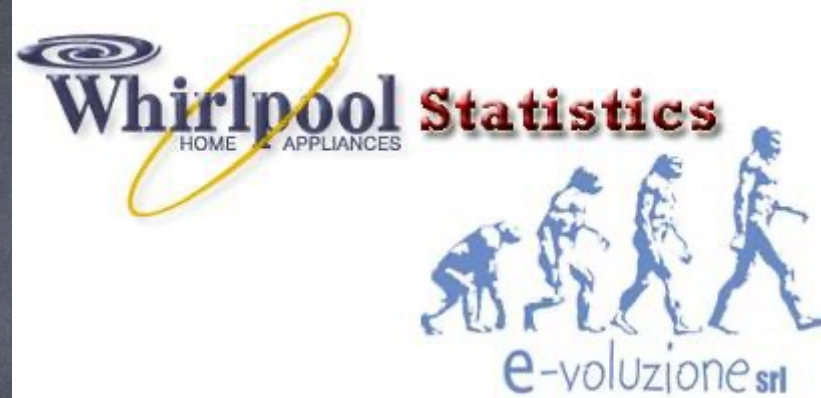


VISION SYSTEM



Whirlpool CORPORATION

Quality Control



10/01/2005 14.33.08

Postazione: 1
Riparatore:
Turno:
Modello:

Pugliese Simone
Paradisi Nicola
Dizze Ciro

Log utente
Log off
Cambia turno

34 MAL MONTATO/INSERITO
36 MANCA

Selezione componente

130 mollone vasca	226 boccola piedino	622 distanziale perno staffaggio
200 MOBILE	232 piedino	710 perno staffaggio
201 mobile Assiemaggio	233 schienale	719 Pannelli antirumore
203 ammortizzatore	234 sella mollone	905 traversa mobile
222 fastex fermo ammortizzatore	621 staffa imballo	
Annulla		< Precedenti

Q.tà: - 1 +

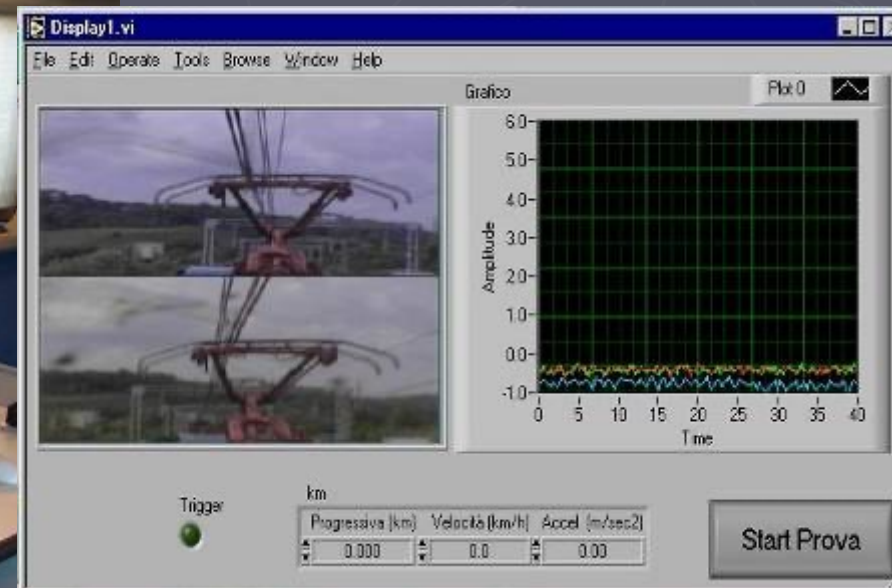
Digitare una domanda

Area ▼ Menu ▼
2004 Tutti

Area	Componente	Defetti	Q.tà	FOR	Q.tà	FOR	Q.tà	FOR	Q.tà	FOR
Assiemaggio			201	1,99%			201	1,99%	201	1,99%
Coltello			117	1,16%			117	1,16%	117	1,16%
		Totale	117	1,16%			117	1,16%	117	1,16%
SPU 1			416	4,12%			416	4,12%	416	4,12%
SPU 4			1.376	13,62%			1.376	13,62%	1.376	13,62%
SPU 5			1.257	12,45%			1.257	12,45%	1.257	12,45%
SPU 6			3.528	34,93%	2	0,02%	3.530	34,95%	3.530	34,95%
SPU 9			241	2,39%			241	2,39%	241	2,39%
Washing Unit			3.391	33,57%			3.391	33,57%	3.391	33,57%
Totale complessivo			10.527	104,23%	2	0,02%	10.529	104,25%	10.529	104,25%

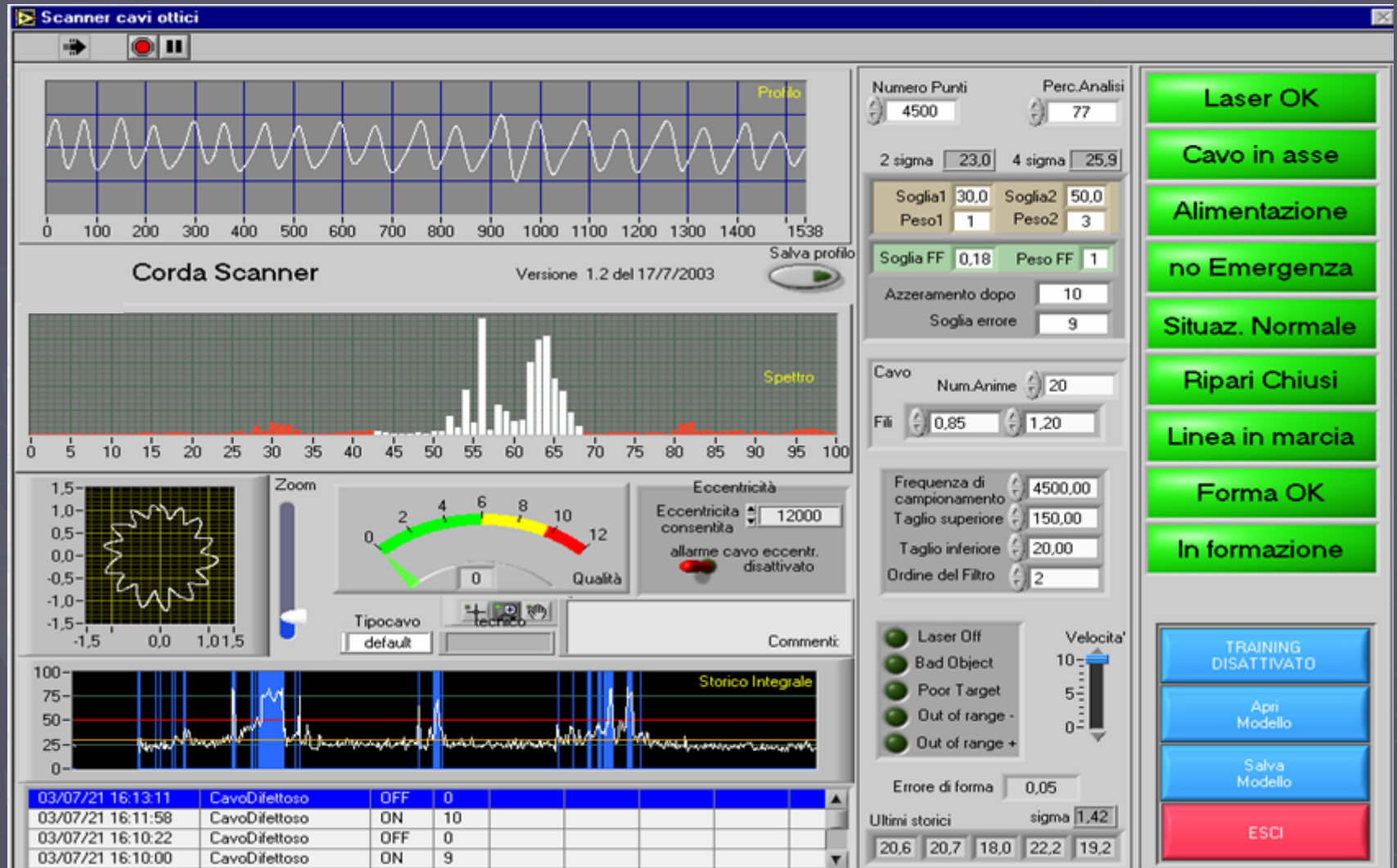
- System to measure production defects
- Production statistics
- New components or new defects management

Pantographs

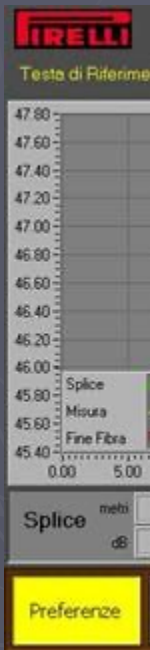
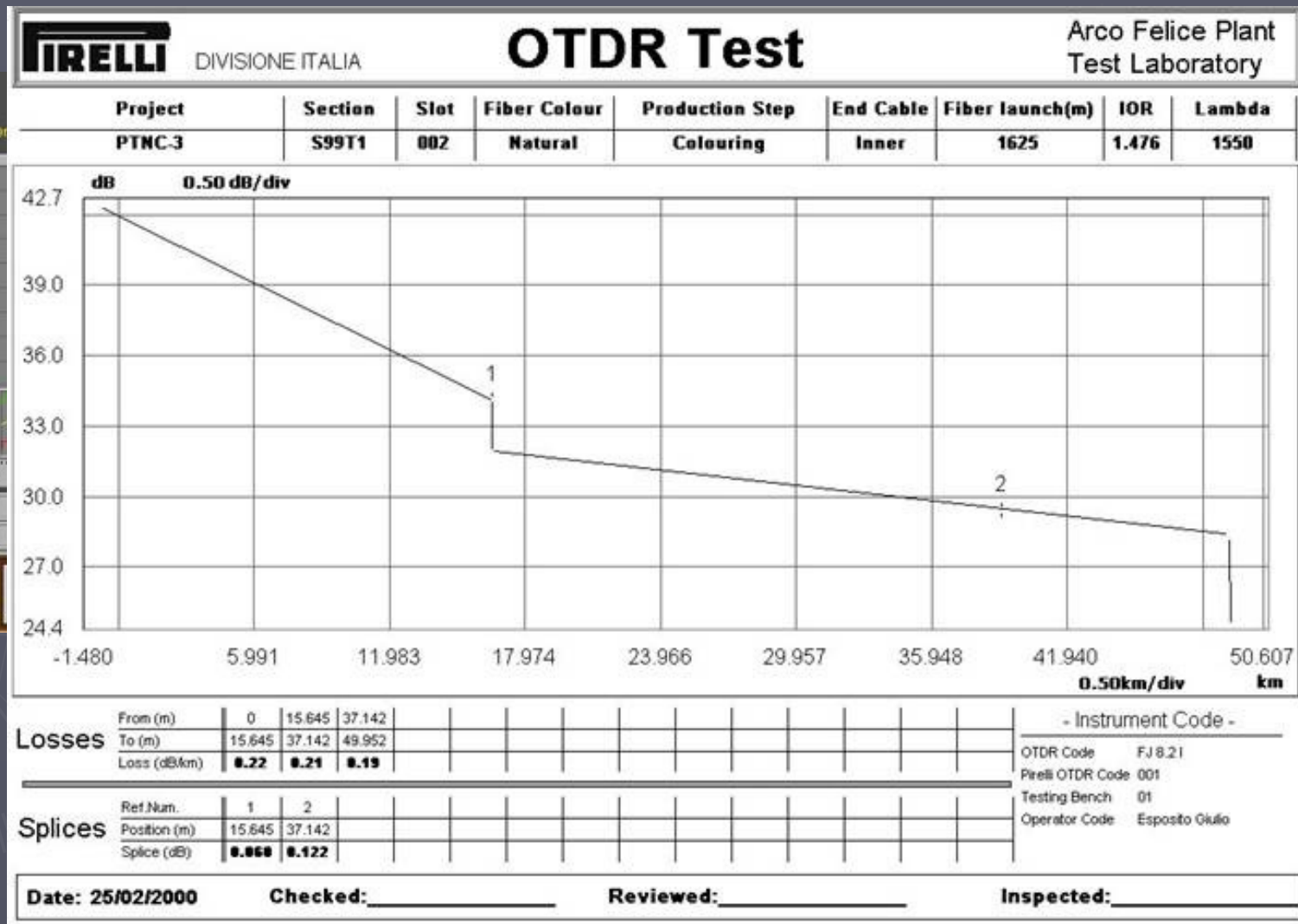


Optical cables

Rope test



Optical Time Domain Reflectometry OTDR

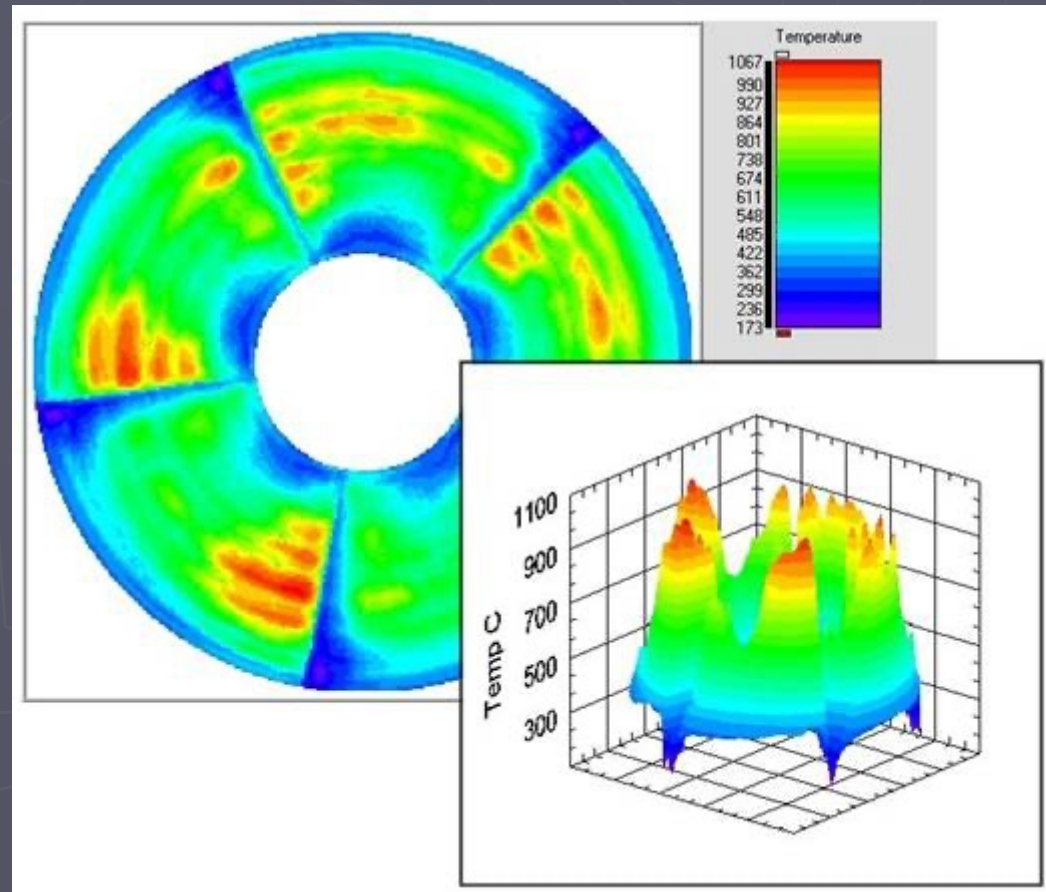




Thermowheel: Termographic images representation



THERMOWHEEL system acquires thermographic images from linear thermal imaging cameras and shows the exact positioning of measured points, both in the case of disk brakes and wheels measurements



Machinery

ITAG

Maria: Folding Machine

- Innovative MMI
- Linux-based
- Touch Screen



ITAG

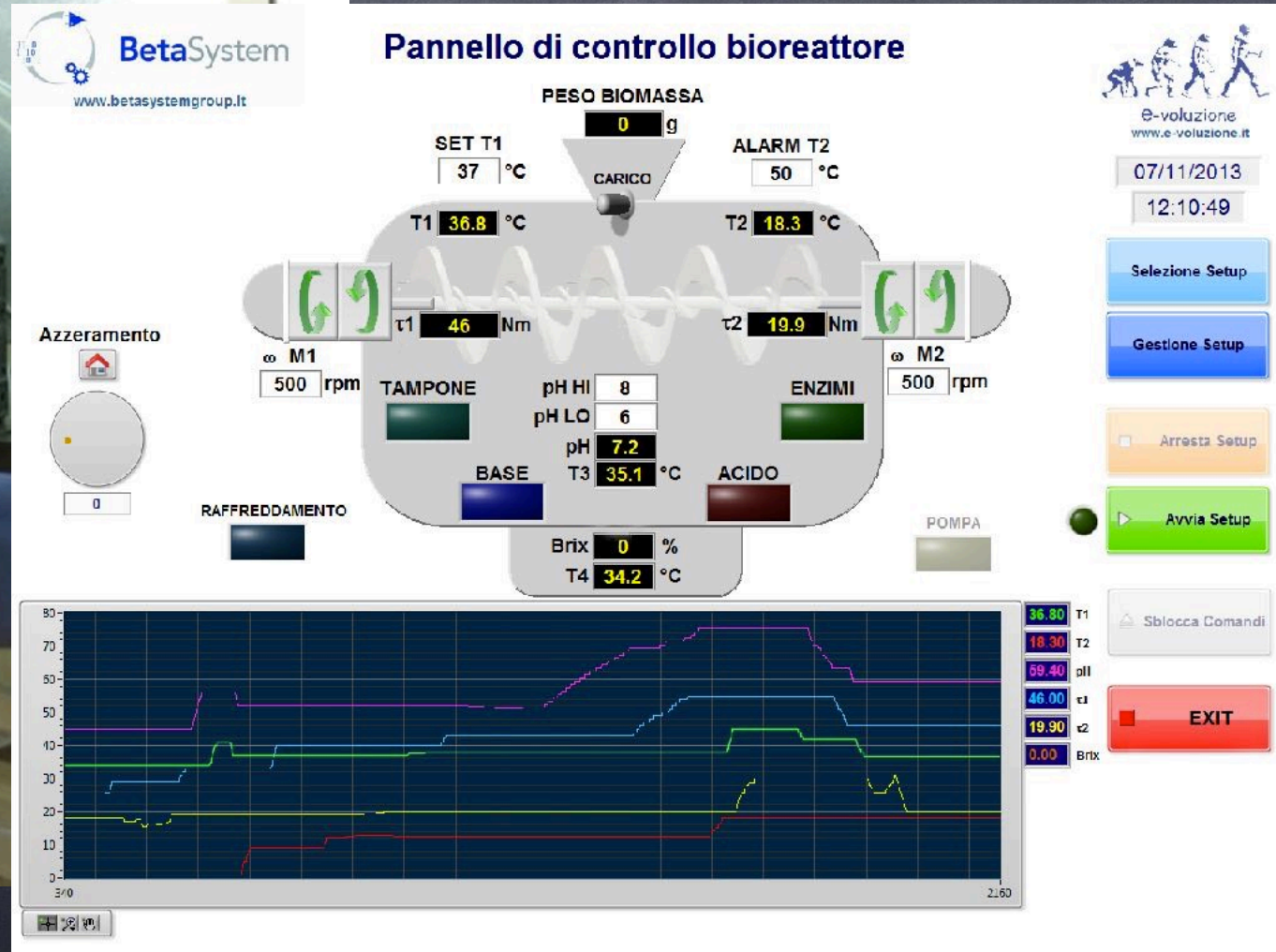
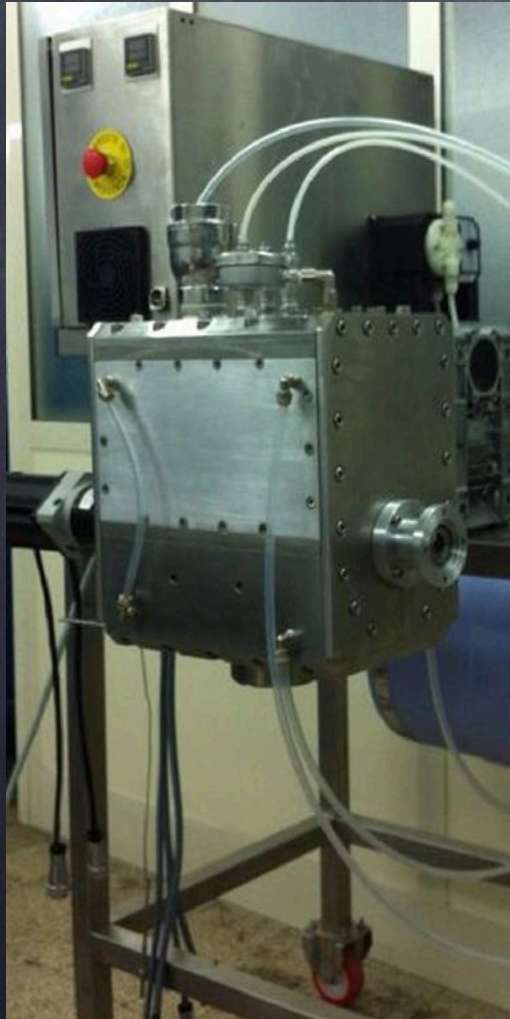
Cassandra:

Automatic recognition



ENEA

Reactor control

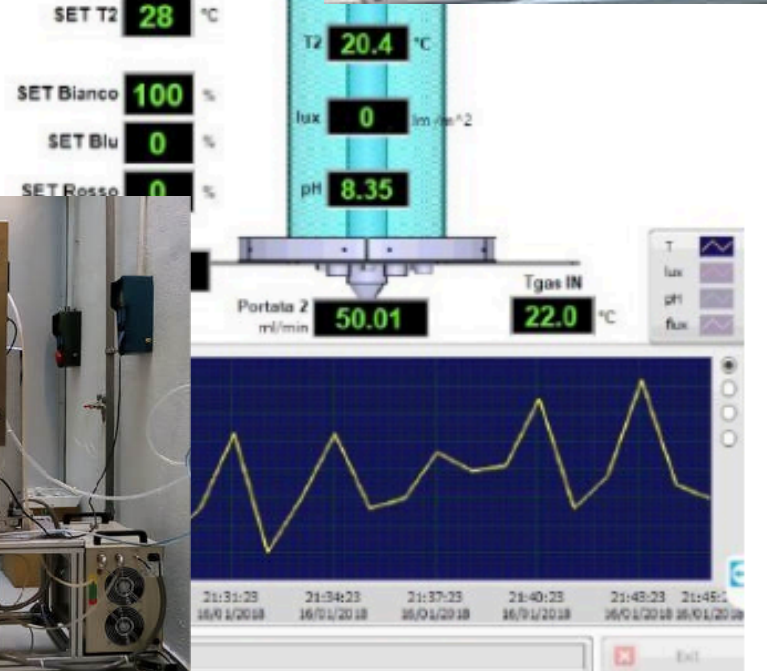
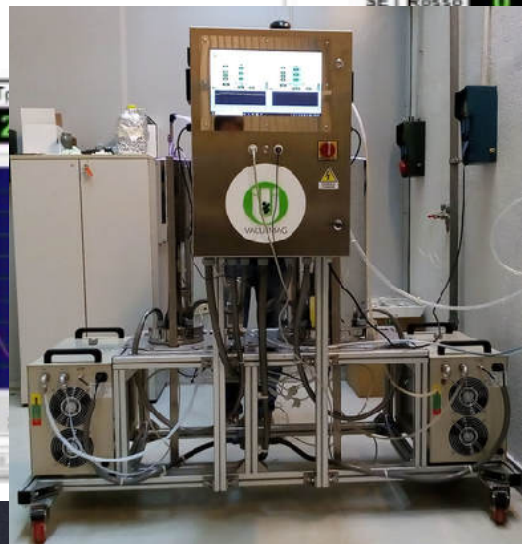


ENEA

Photo-Bio-Reactor



Pannello di controllo FotoBioReattore



Patents

EN ISO 20471

► High visibility clothing Vision System



HVCU
e-voluzione S1 2007-2018
v5.0.6 del 09/05/2018
e-voluzione

PARAMETRI CAPO

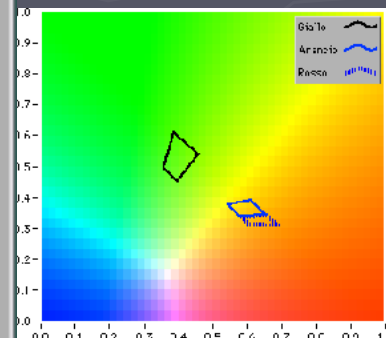
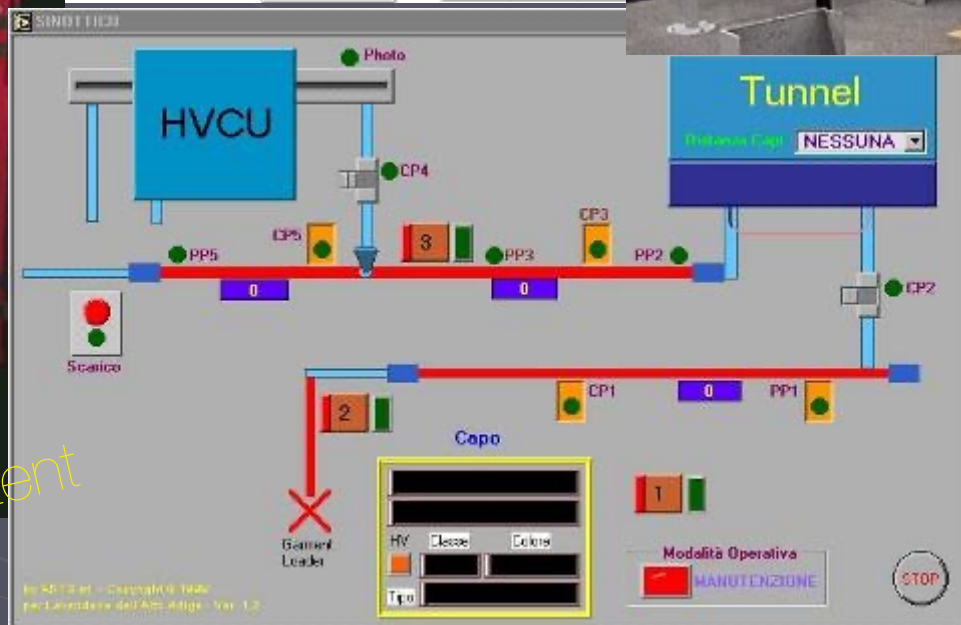
Colore: Giallo Classe: F1 2 F2 ID Grucce: 209824/1
Materiale: 3000832007
Nome: AGNELLI IC MAURO
CIT: ☐ Manual: ☐

ANALISI

Qualità: Area a norma
Colore 1: 0.32 Colore 2: 0.29
Riflet. 1: 0.05 Riflet. 2: 0.05

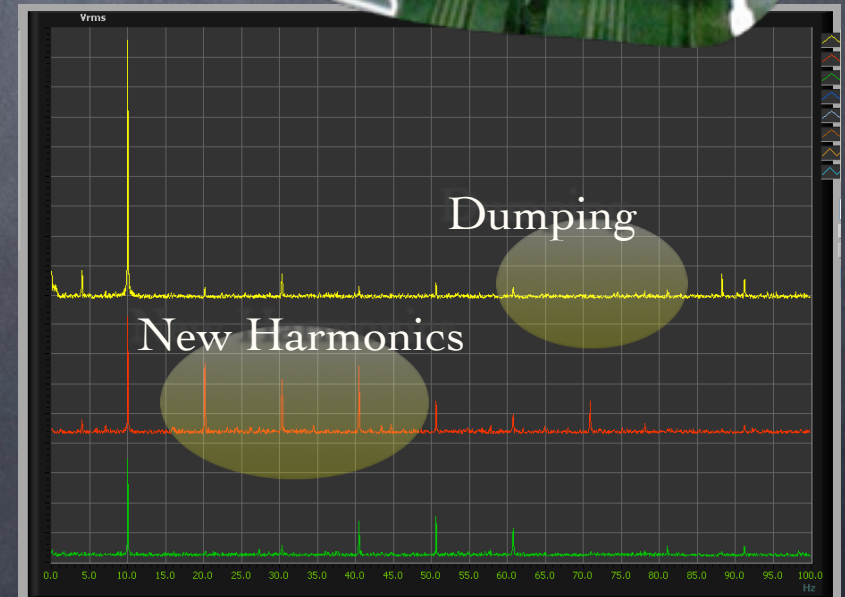
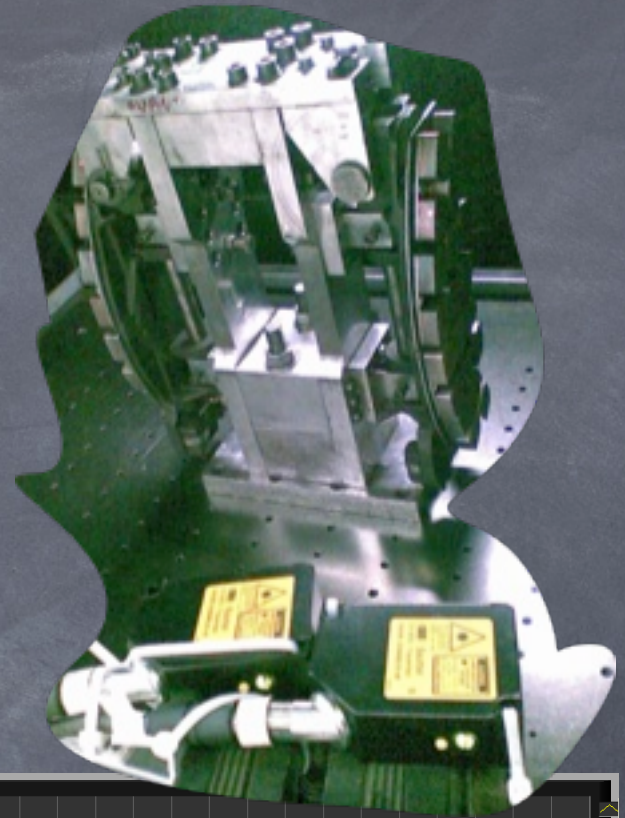
OK COLTCH BOUT

STOP (F10)



International Patent

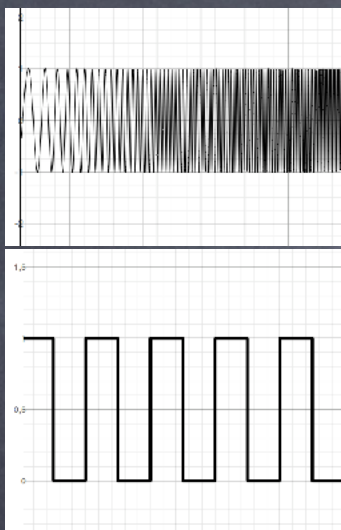
Laser Vibrometer



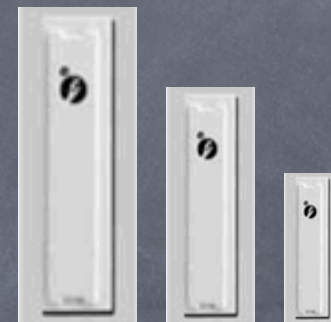
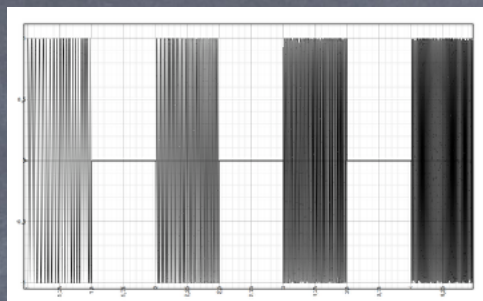
Italian Patent 0001369738

Magnetostrictive tags

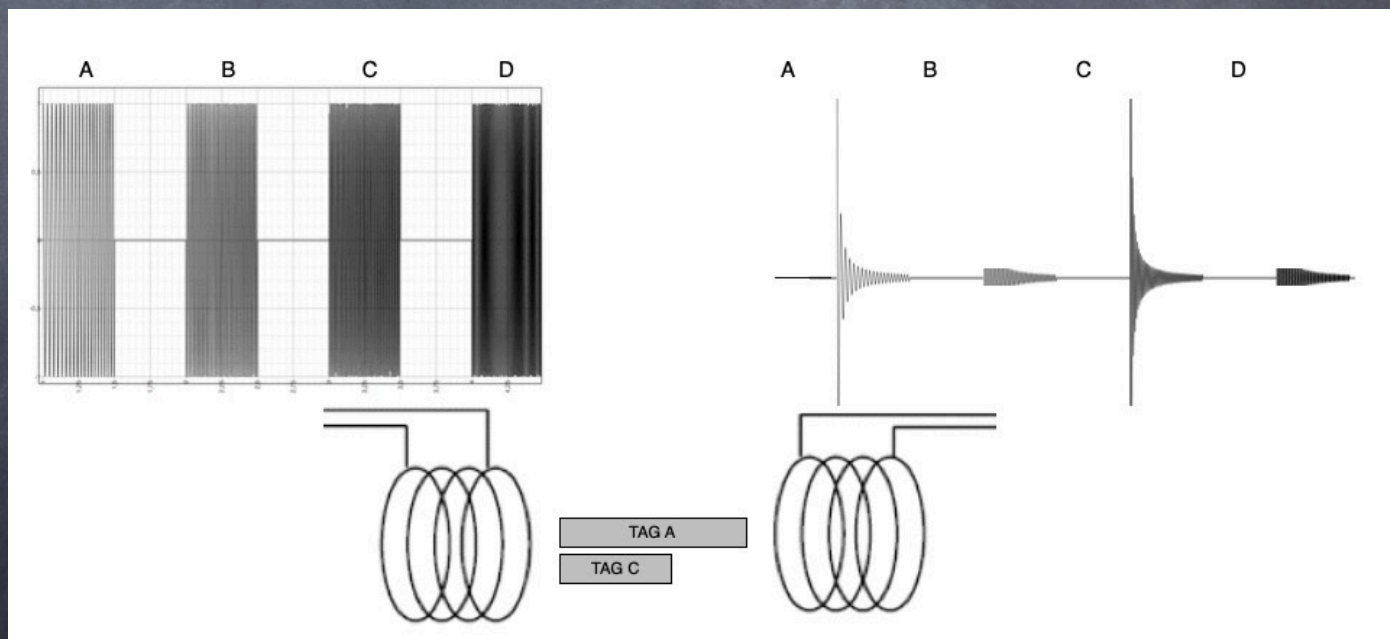
Italian Patent 0001398170



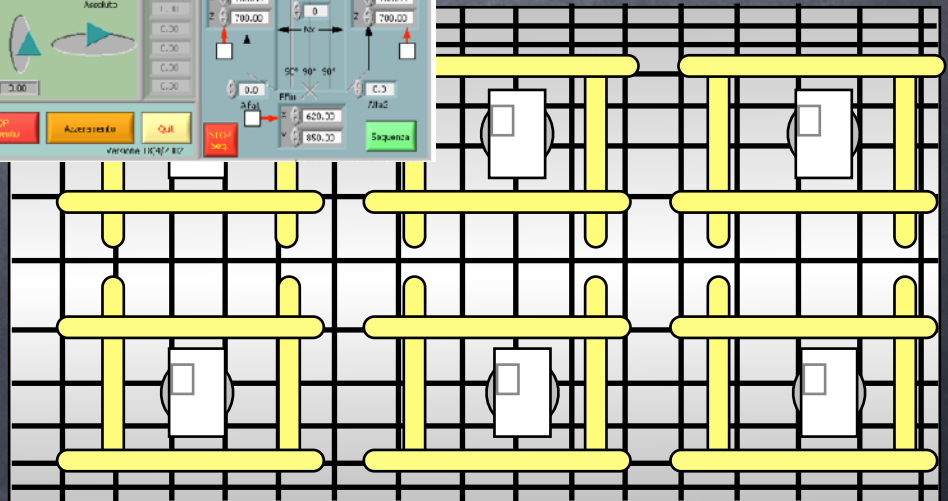
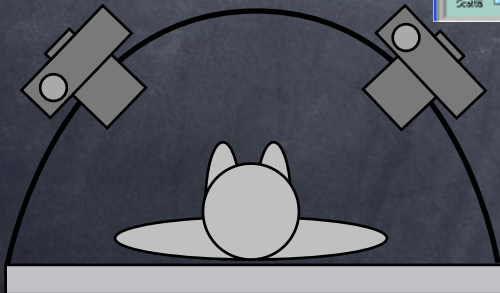
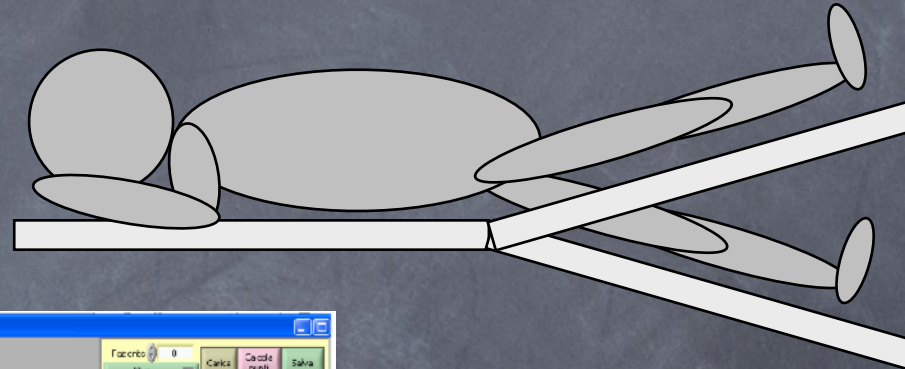
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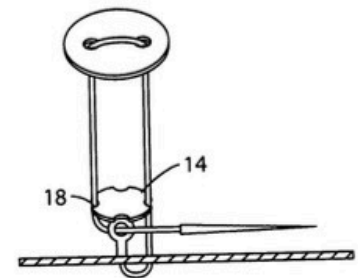
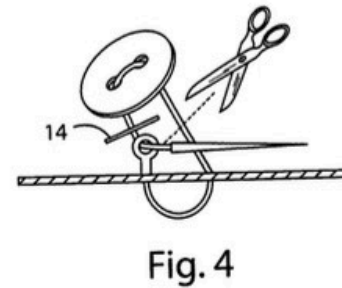
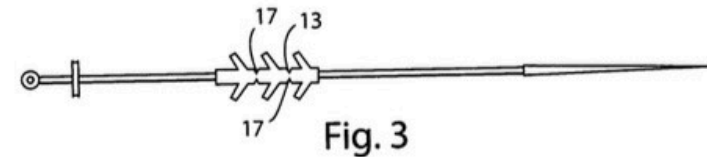
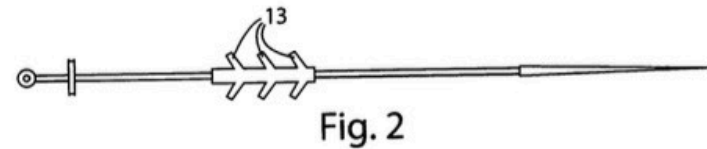
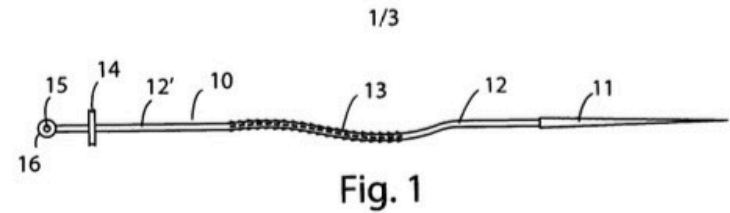
WITH



Italian Patent 0001397636



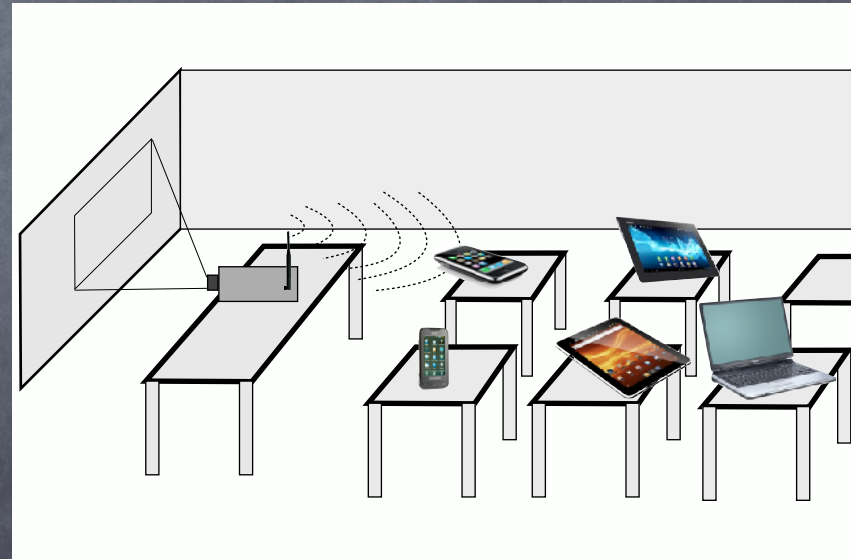
Button Fixing Device



World Patent 0001397636

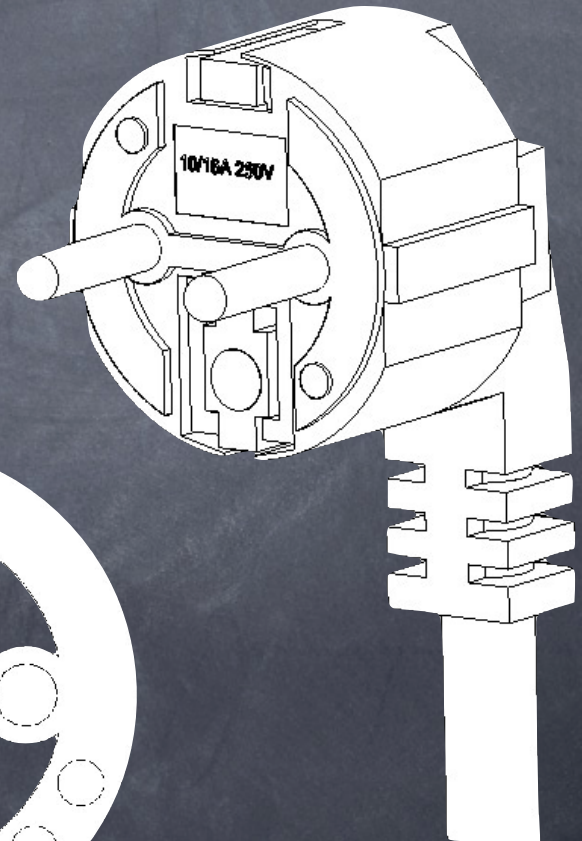
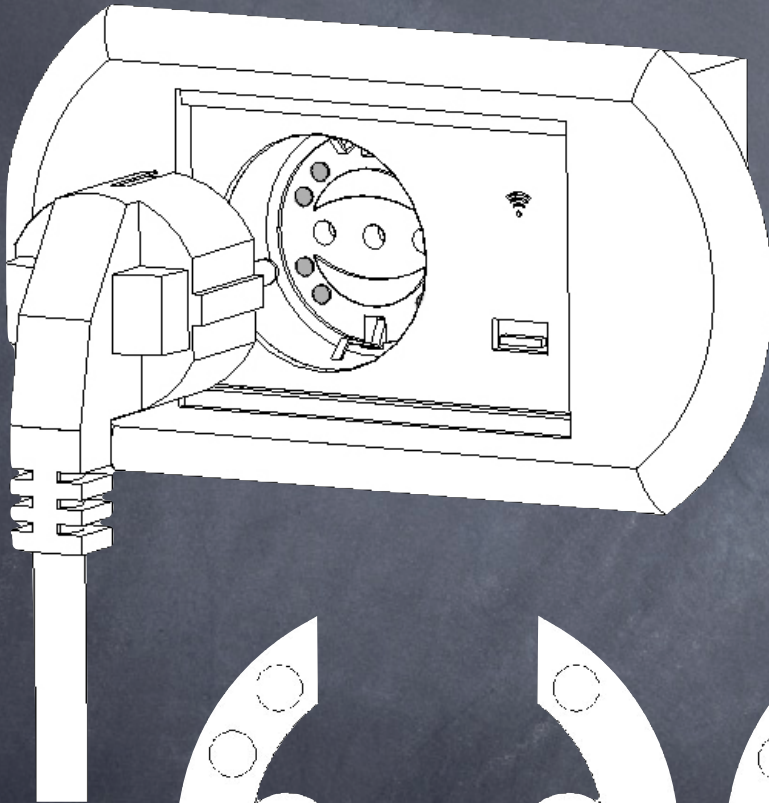
Didactic Projector

Italian Patent 0001422138

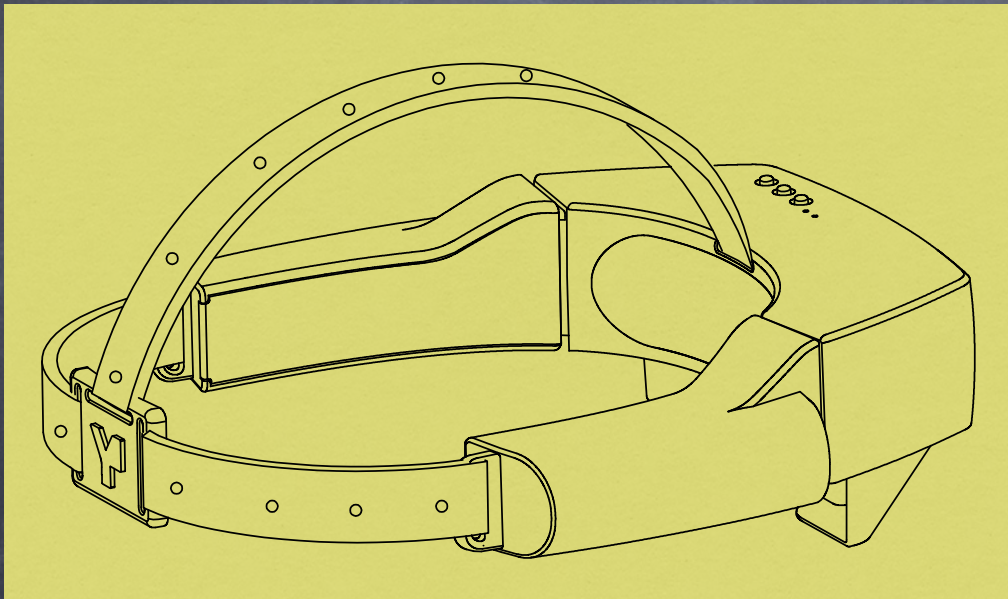


Load identification System

Italian Patent 0001426198

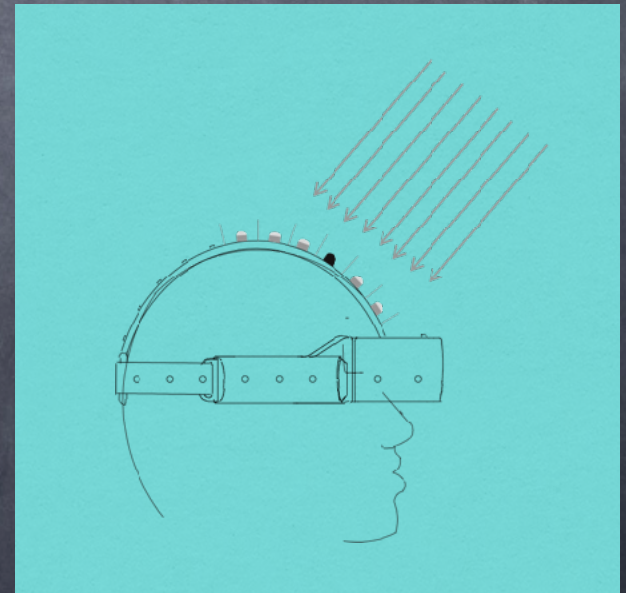


Main light identification for AR systems



Y O U B I Q U O

Italian Patent
102020000020302



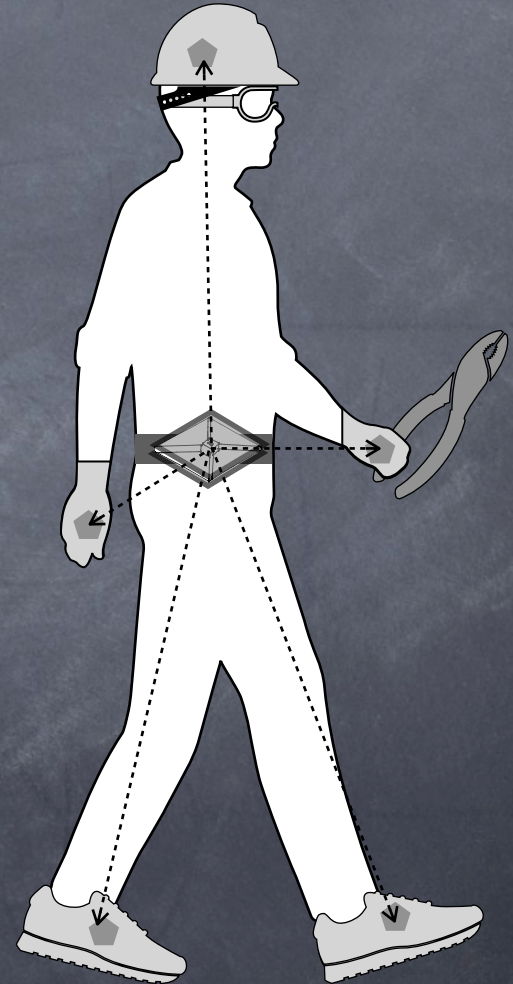
PPE Check

Problem:

Control the presence and position of Personal Protective Equipments (PPE) for a worker to certify the application of Safety



Patent
102021000012086

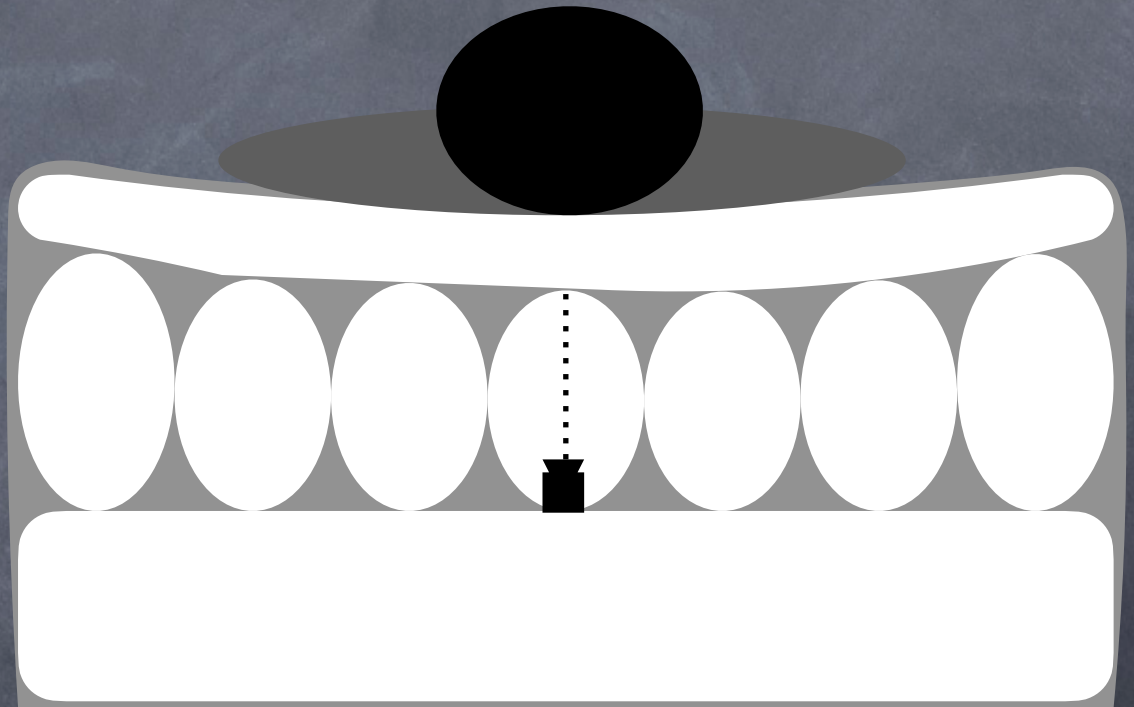


Mattress Usury

Italian Patent
102021000020912

FOR

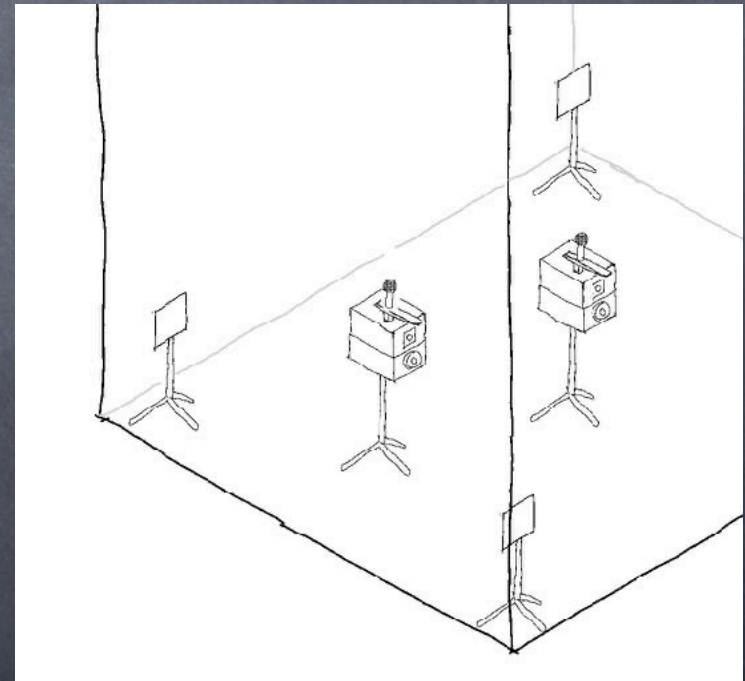
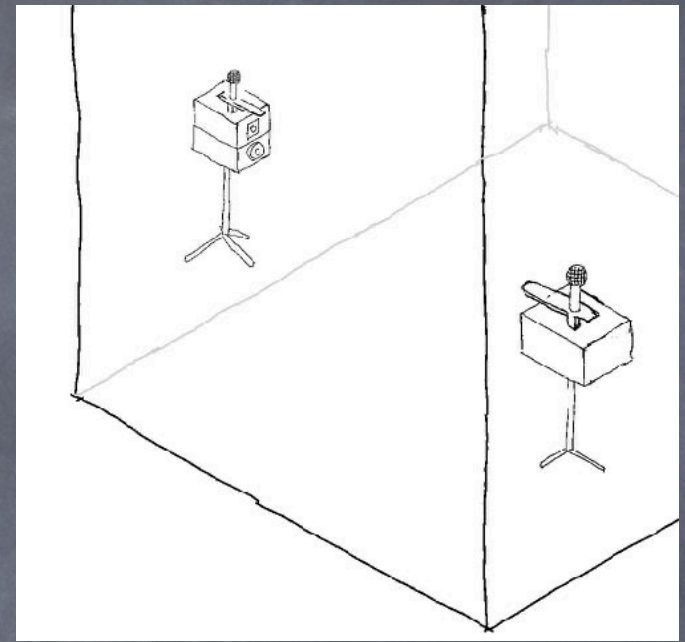
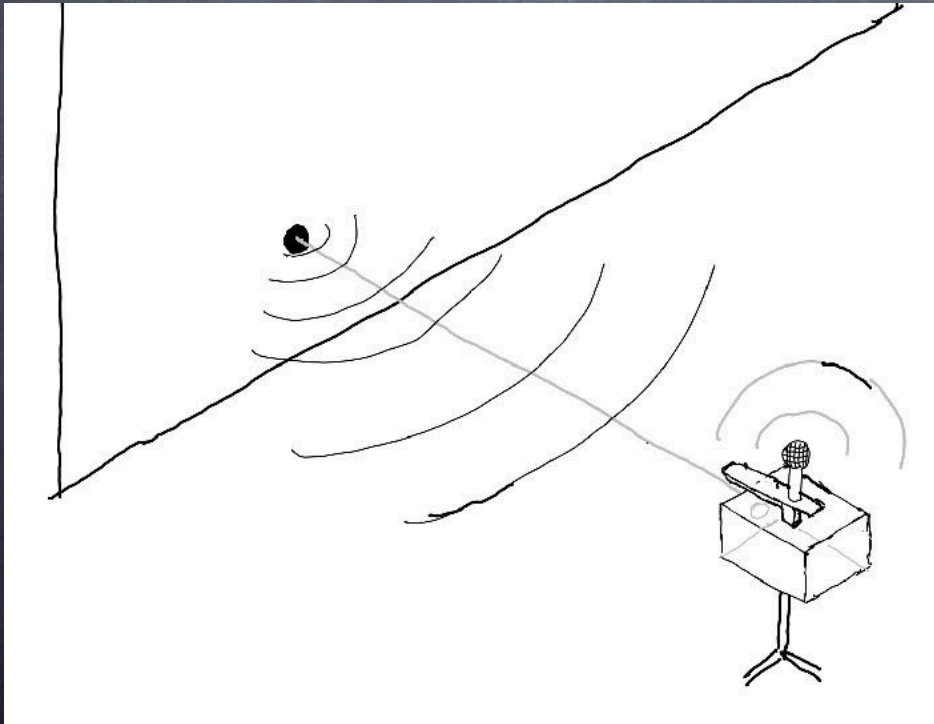
VALFLEX®
italian bed system



Patent Pending and Other Ideas

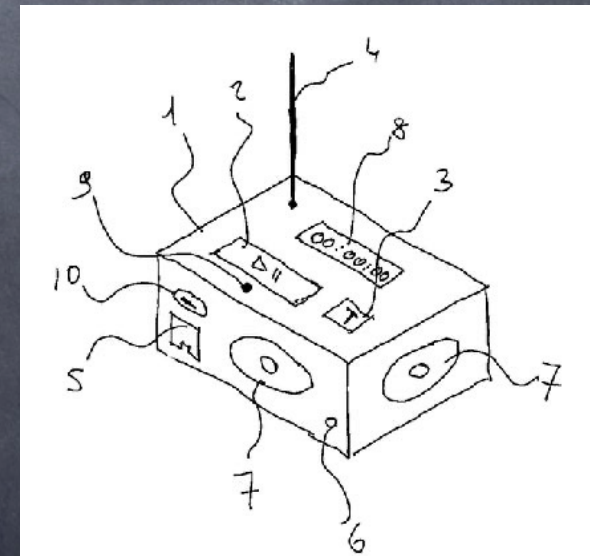
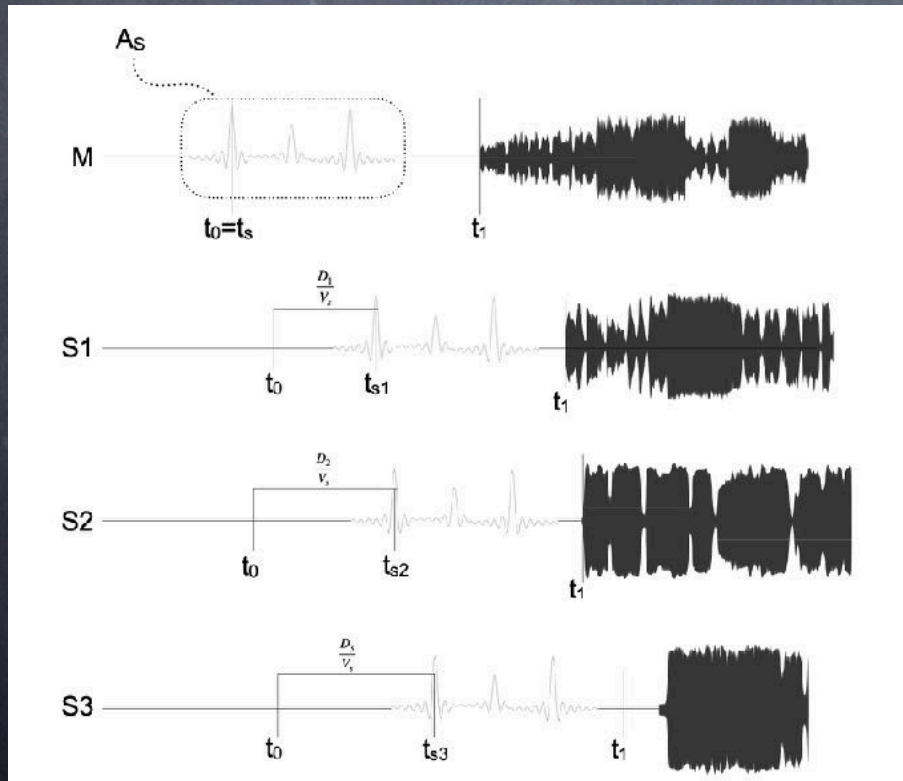
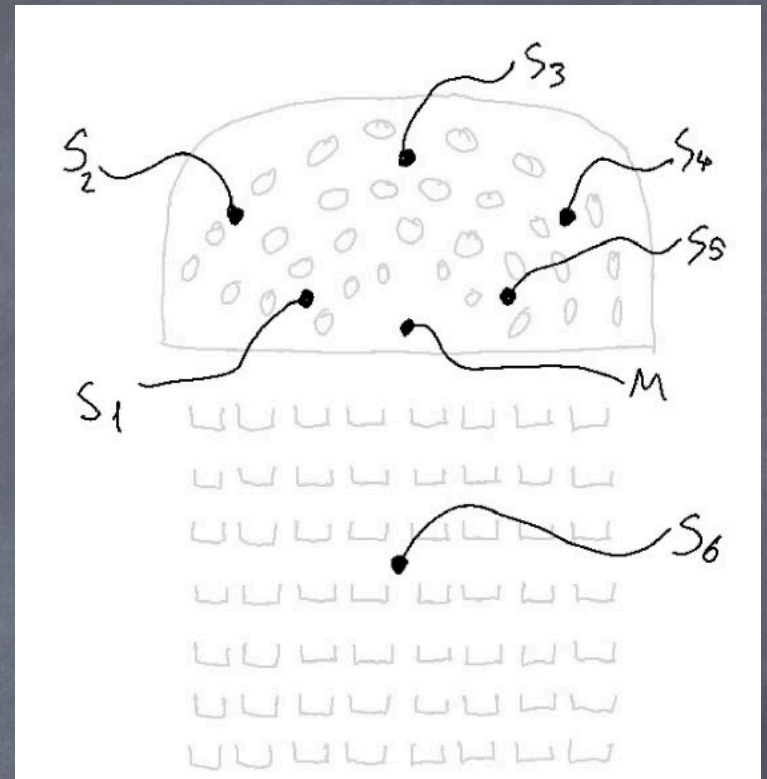
Acoustic Measurement System

Patent pending



Stage Recording

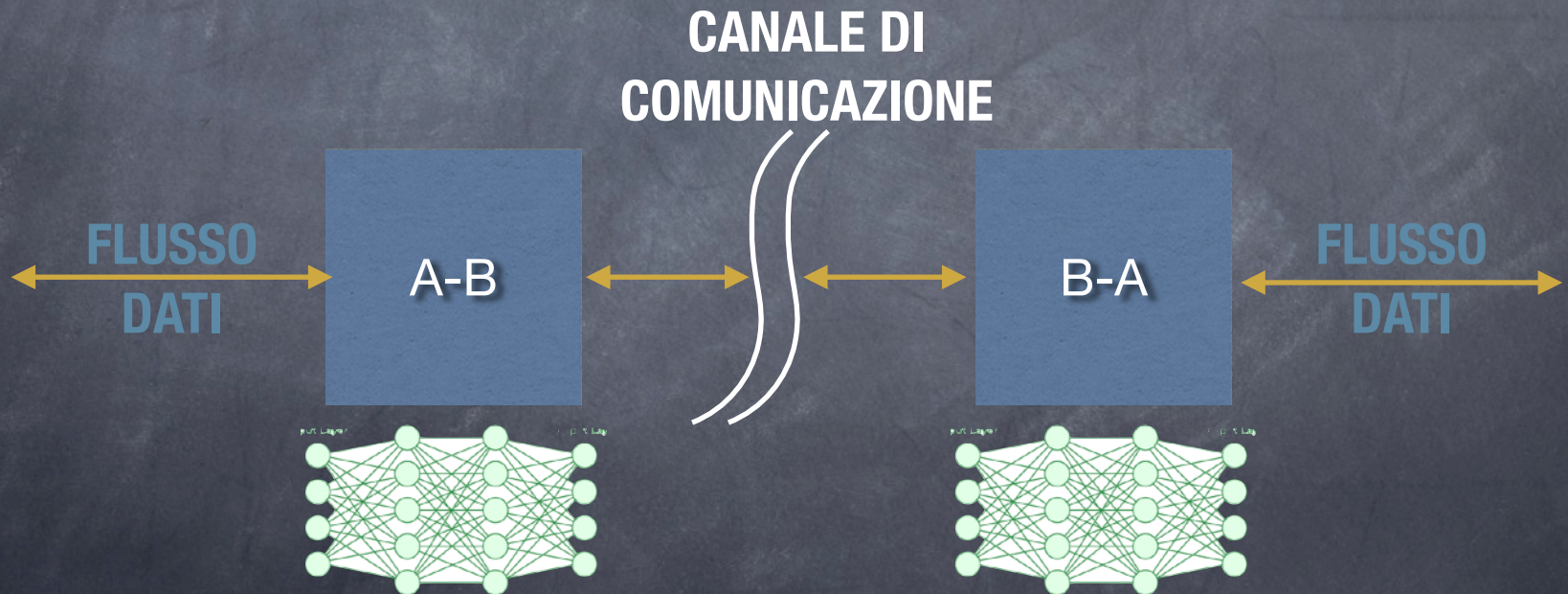
Patent pending



AI Crypto

Patent pending

Twin Chips to have a secure data connection





Protocol and Document Management

SIAE © n.
D000018548



- Mail forward to store
- Web browser to search and retrieve

by edox srl ©2022

Logout automatico 08:54

1/91

FULL SEARCH

DASHBOARD

General / Edox Dashboard

Numero di protocolli x categoria

Categoria	Count
Offerta	267
Patente	13
Procedura	4
Progetto	10
Offerta	21
Qualità	15
Edilizia	0
Ricerca	0
Conferma Dati	0
Conferma Sol.	0

Numero di categorie

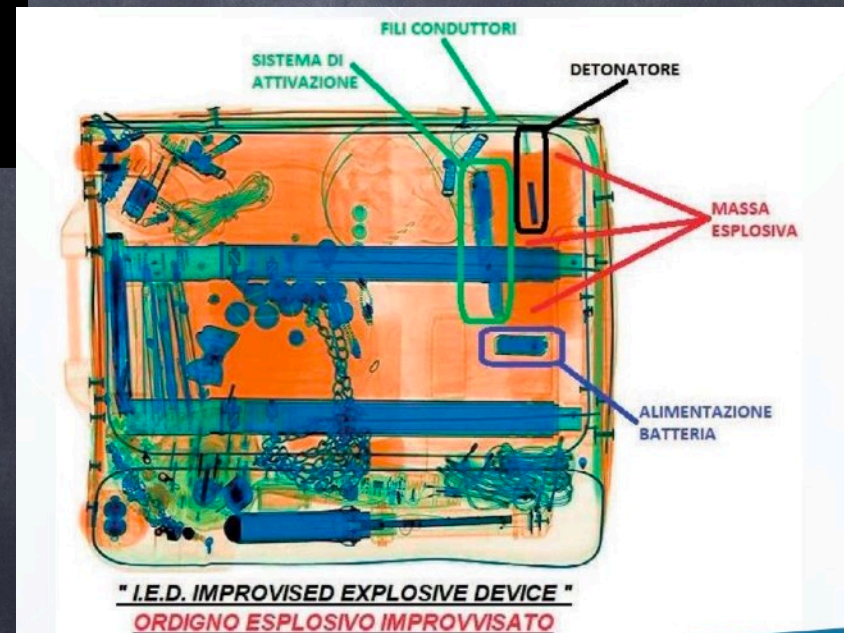
Categoria	Value
Offerta	267
offerto	21
Qualità	15
Fattura	13
Progetto	10
Ordine	4
Idee	3
Fornitore	2
Teoria	2
commerciale	1

Numero di protocolli

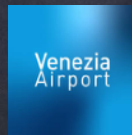
2019 2020 2021 2022 2023

XBAG

Luggage Screening Simulator



Adopted by



Museums, Education, Research



International Forum of Culture 2007 Monterrey Mexico



Design and development of technology inside
Comune di Napoli's stand

EVOQUEST

CLASS INTERACTIVE ROLE PLAYING GAME



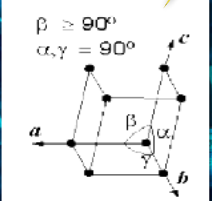
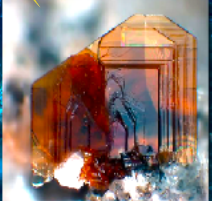
GeoQuest: (2) *

To which crystalline system corresponds?

Question

Answer

$\beta \geq 90^\circ$
 $\alpha, \gamma = 90^\circ$

Hexagonal
 Trigonal
 Triclinic
 Monoclinic
 Tetragonal
 Orthorhombic

To answer connect to 192.168.1.4:8888

Life 100
 physicists 100
 chemists 100
 engineers 100
 historians 100
 advisers 100

Group life points

0

GeoQuest: (2) *

From what were characterized the lower limbs of the Giants?

Class Answer

65%

15%

20%

Corps snakes
 Long rods
 Corazze

To answer connect to 192.168.1.4:8888

Life 100
 physicists 100
 chemists 100
 engineers 100
 historians 100
 advisers 100

8

No of Answers

ESPRA

Space didactic balloon experiment
to study the atmosphere



- Balloon delivery to study the atmosphere.
- Ground control center
- Different degree of schools





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