



intecs Solutions

SYSTEM ENGINEERING
SOFTWARE DEVELOPMENT
PROCESS & RAMS CONSULTING
VALIDATION & VERIFICATION
EMBEDDED SOFTWARE

Intecs Solutions

Brainware Company

Rome 26 September 2018

• Company Overview

• The Offer

- Products
- Solutions and System Integration
- Services
- R&D

- **Established in 1974**
- **Markets:**
 - *Railways*
 - *Aerospace*
 - *Automotive*
 - *Defense*
 - *Air Traffic Control*
 - *Service Providers*
- **Offer:**
 - Product
 - Solutions
 - Services
 - R&D
- **Core Competences:**
 - Design
 - Development of Hard Real Time Safety Critical System
 - Artificial Intelligence Laboratory
 - Independent Verification and Validation
- **Staff**
 - 400+ skilled engineers



Intecs applies a 4 step hiring process to identify best in class engineers.



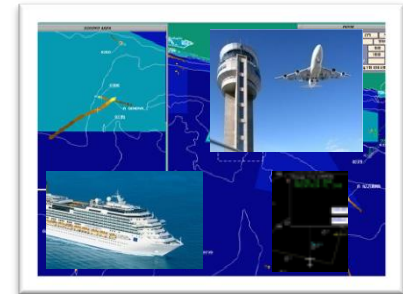
HIGH-TECH SYSTEMS ACROSS MARKETS



**AeroSpace
(18%)**



**Defence
(11%)**



**AirTrafficControl
(8%)**



**Automotive &
SmartSystems
(13%)**



**Railway
(31%)**



**Telecom.
(15%)**



**Processes &
Safety (4%)**

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SIRIO-LX : is a safety related system (CENELEC SIL4) based on radar technology for detection of objects like cars, truck, coaches ecc. , inside a level crossing area. Each SIRIO-LX node is composed of up to 4 radar sensors and an outdoor cabinet, interfacing directly a signaling system and a remote monitoring centre.



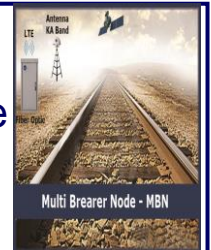
SIRIO-OD : is a safety related system (CENELEC SIL4) based on radar technology for detection of falling objects, in proximity of bridges or tunnel entrances/exits, along railway lines. Each SIRIO-OD node is composed of 4 radar sensors and an outdoor cabinet, interfacing directly a signaling system and a remote monitoring centre.



Dejamm-R: a monitoring system for the detection of JAMMING in Railway networks. The DEJAMM-R sentinels are autonomous devices that continuously monitor all the downlink and uplink GSM-R bands, which are used for ETCS Level 2 signaling in high speed rail systems.



MBN: Multi Bearer Node: is a product that provides wired and wireless connectivity to devices that need to send/receive data. It is capable to manage several communication technologies in single or redundant mode with configurable priority level and enables secure, cost effective, large scale deployment of communications and processing power for harsh environment applications



ADRANO: is a passive Acoustic Detection system that uses advanced acoustic technology to detect and convey the location of:

- **weapon fire** (e.g. the rifle of a sniper)
- **approaching drones**

ADRANO provides real time alert of sniper attack or unauthorized drone arrival, enabling a rapid and coordinated response.



DEDALO: is a passive Drone Detection system able to recognize and localize drones analyzing electromagnetic emissions through a radio frequency (RF) sensing.

It provides real time alert of Unknown Slow Movers / Unmanned Air Vehicles (UAV), enabling a rapid and coordinated response



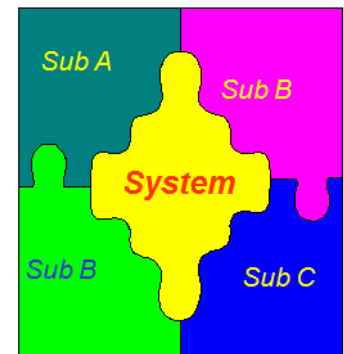
SoftRec: a GPS/Galileo real time SW receiver complete of a friendly GUI, whose acquisition, tracking and positioning core can be embedded in whichever system at reduced cost compared to conventional technologies



Intecs Solutions is internationally recognized for its outstanding competence in the deployment of Hard Real Time, Dependable, Safety Critical systems.

Starting from the Customer Requirements, Intecs is able to:

- Design and Development of the CUSTOM system/subsystems
- Design and Development of the communication and interfaces necessary to integrate the available subsystems
- Subsystems Integration and Testing
- System Deployment and Activation



System engineering

- Target system support (eg. Functional assessments, System & Mission design)
- Simulators & ATE (turn-key & fully tested)

Custom Software design

- Applications (turn-key & fully tested) (eg MMI for ATC, GIS)
- Basic software (turn-key & fully tested) (eg. BSP, Firmware)
- Support (eg Reverse eng., Porting, Feasibility, etc.)

Custom Hardware design

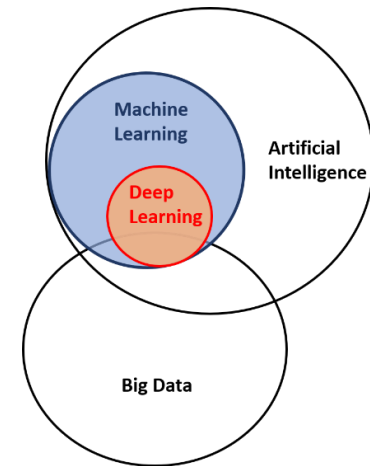
- Equipment (eg. MC4)
- Board (turn-key & fully tested) (eg. DSP-5)
- Support (eg PCB layout, thermal analysis., FPGA des.&prog., RF, optical, etc.)

Independent Verification & Validation

- Planning & execution of Software Tests (Module, Integration Sw-Sw and Sw-Hw)
- Planning & execution of Hardware Tests (eg. EMC chamber, Thermal chamber)
- Planning & execution of System Tests (using simulators)

Processes, Safety & RAMT (Sw,Hw,Sys) (eg. train, assess, coach)

- ✓ Software Engineering
- ✓ Software Defined Radio Technology
- ✓ Model Based Design
- ✓ RAMS process, methods and tools
- ✓ Digital Signal Processing
- ✓ Artificial Intelligence / Machine Learning
- ✓ Big Data





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THANK YOU !

www.intecs.it