SInCACI - Intelligent Systems for Industrial Control, Acquisition and Communication

Achievements:

- Fuzzy control systems
  - General purpose fuzzy control development system, library and engine;
  - Integration with OPC-based communication for industrial setups;
  - Easy construction of Fuzzy Sets and controller with Graphical User Interface;

  - **Direct application to industry problems:**
    - Raw mills and cement mills in cement factories (Portugal, Brazil, Turkey, Colombia, Tunisia, Morocco);
    - Control of pollutants emissions in cement kilns (Cimpor, ...);

- Soft sensors
  - Variable selection and model design (VSMD);
  - Offline and online methods for VSMD;
  - GA, NN, LS-SVM, information theoretic methods;
  - Ensemble methods, and methods for small datasets;

- Industrial distributed real-time communication and processing modules;

- **Spin-off: Acontrol R&D Division;**

Partnership: ISR-UC; AControl, Lda; Cimpor.

Support: