

Curriculum Vitæ of CARLOS ALBERTO C.M. COUTO

Identification

Ful Name Carlos Alberto Caridade Monteiro e Couto
Date and Place of Birth: 21Feb1950, in Lourenço Marques (Maputo), Mozambique
Institution : Departamento de Electrónica Industrial *phone:* +351 253 510197/0
Universidade do Minho, Azurém, *fax:* +351 253 510189
4800 Guimarães, PORTUGAL *e-mail:* ccouto@dei.uminho.pt
Position held: Full Professor on Industrial Electronics on 1995 and retired since Nov10



Academic Degrees

- *Licenciatura* (5 year course) in *Electrical Engineering* (light currents) University of Lourenço Marques-Mozambique, 1972
- *MSc* on "Power Electronics and Systems", from UMIST, Manchester -UK., 1979
- *Ph.D.* on Power Electronics, from UMIST, Manchester - UK., 1981
- *Aggregation* on Electronics and Instrumentation, from University of Minho, Portugal, 1994

Research & Development Activity

- Supervision and strong engagement in 2 very successfully projects requested by local industries:
 - electronic solutions for weighing applications (84-90);
 - a microprocessor based equipment to control the tower clock and to ring the bells (85-87 and 96-97).In both cases the products developed are still being produced.
- Responsible for two Industrial Research Contract sponsored the Ministry of Industry and already concluded:
 - a microprocessor based system for buses, for traffic data acquisition and to configure the electronic gearbox (90-93);
 - an automatic system for shoe sole halogenation using a manipulator guided by image processing (94-96).
- Responsible for the participation of the University of Trás-os-Montes e Alto Douro – Group of Animal Instrumentation, in the EU project AIR-2304, CAPT (Coupling Active and Passive Telemetric data collection for monitoring farm animals) with the main task of developing a sensing solution for heart rate measurement, to be included in a injectable transponder developed by the other partners (Feb95-Feb98).
- Responsible for 2 Consortium Contact Projects Sponsored by the Portuguese Innovation Agency, one on electronic weighing systems aiming to the development of intelligent load cells (Jan97-Jun2000), other on robotic deburring for iron casting. (started on Jan98), both 2 years projects.
- Responsible for a 3-year PRAXIS XXI (Portuguese Research Program) project titled "Control Management and Innovation in the Sewing Process" started on June 97 until March2001.
- Involvement/supervision of several projects:
 - Study, development and application of transponders, including sensing capability;
 - Intelligent Sensors for weighing applications, wireless multisensor rods for greenhouses;
 - Fuzzy Logic and Neural Networks applied to control and sensor fusion (robotics and greenhouses);
 - Distributed electronic data acquisition and control system for industrial agricultural greenhouses;
 - Power line conditioning and topologies for switched mode power supplies with intrinsic backup;
 - Modulation, Control and Optimization techniques for PWM induction motor drives;
 - Digital yarn evenness analysis (for textile).
 - Self-calibrated pyrometer independent on objects emissivity.
 - Electrostatic in-mould labeling.
- Has supervised 51 (final year) graduation projects, 28 MSc dissertations, 23 Ph.D. Thesis (17 co-supervision), already concluded.
- Participation in several postgraduate examinations jury: 101 MSc, 92 Ph.D., 43 Aggregation and 3 exams for Coordinator Professors for Polytechnic Institutes.
- Participation in several selection jury of academic staff: 43 for Associate Professors, 12 for Full Professor.
- Has published more than 180 papers in journals (27), books (3), and conferences most of them international.
- Is Co-author of 2 international patents

Other Activities

- Deputy Dean of the School of Engineering of the University of Minho (Nov85 - Jul88 and Jan90 - Oct92)
- Member of the University of Minho Senate from Feb91 to Oct92
- Secretary of the *Centro de Ciências e Engenharia de Sistemas* (research centre)(Sep86 to Dec93)
- Head of the *Departamento de Electrónica Industrial* from Jan89 to Sept92, from Nov94 to Sept99 and from September 2001 to December 2003.
- Member of the Board of Directors of IDITE-Minho (University -Industry interface unit), on behalf of the University of Minho, nominated by the Rector. Founder and Coordinator of Centre of Industrial Automation and Electronics, from Nov91 to Jul02, and from 2006.
- From March 91 to August 94 member of the Coordinating Commission of the Research on the Production Technologies (planning, projects evaluation) at JNICT (Portuguese Science Research Council), and again since August 95.
- Since 1991 has been member of several Evaluation and Selection Panels for research projects and grants submitted to JNICT (programs CIÊNCIA, PRAXIS,..), mainly concerned with the Production Technologies Automation and Robotics.

- Member of the group in charge of preparing the PRAXIS XXI, the 94-99 national research program, on the Production Technologies, Automation and Robotics (Feb94 to April94).
- Portuguese delegate to INCO - International Cooperation Committee of the European Union Commission Dec 94-Dec99.
- Founder (94) and Vice-President of the Portuguese Association of Automatic Control (94-99)
- General Co-Chair of the IEEE-ISIE'97 – International Symposium on Industrial Electronics, an annual conference of IEEE Industrial Electronics Society, held at the University of Minho in Guimarães on 7-11 July 97.
- General Chair of Controlo'2000 – 4th Portuguese Conference on Automatic Control, , held at the University of Minho in Guimarães-Portugal, October 4 - 6, 2000.
- Involvement in the organization of several international conferences: Technical-Program Co-Chair, Track-Chair, Program Committee, Publicity Chair.
- Paper reviewer for several international journals and conferences.
- Elected member of the Administrative Committee (AdCom) of the IEEE Industrial Electronics Society, since Jan1998.
- From January 2000 to December 2001 Chief Editor for the Newsletter of the IEEE – Industrial Electronics Society.
- From Jan2002 to Dec2004 Vice-President for Conference Activities of the IEEE – Industrial Electronics Society.
- From Jan2005 to Dec2005 Vice-President for Technical Activities of the IEEE – Industrial Electronics Society.
- From Jan2001 to Jan2003 President of APCA- Portuguese Association of Automatic Control.

Braga, December 2011

