

# Paolo Carbone

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## Full Professor of Electronic Instrumentation

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### Research

Paolo Carbone research objective is to develop knowledge, models and systems for the advance of the instrumentation and measurement technology and for the effective implementation of quality management systems. Research topics include:

- development of test procedures for digital instrumentation and design of data acquisition systems;
- application of statistical signal processing for the improvement of electronic instrumentation performance and reliability and for statistical process control;
- development of models for the analysis of signal quantization effects;
- use of dithering and dynamic–element–matching in data conversion.

The focus of his actual research is on designing and realizing systems for indoor positioning. He coordinates the research group and laboratory activity on Electronic Instrumentation, at the University of Perugia and tutors Master's and Doctorate level students. He is and was responsible for Government and Enterprise funded projects. Paolo Carbone has performed research in US–based universities (UCI - Irvine) during two semesters in the years 1993 and 1996. He is author and co–author of about 120 papers published in international refereed journals (about 50) or in proceedings of international congresses.

### Teaching

Paolo Carbone teaches courses associated with the educational programs of the School of Engineering at the University of Perugia. Currently, these courses include:

- Quality and reliability engineering
- Software Quality
- Electronic Instrumentation
- Statistical signal processing
- Enterprise organization (Master's degree in Enterprise Management)

Paolo Carbone has held a visiting teaching position at the University of California – Irvine.

### Academic and professional activities

Paolo Carbone is quality representative for the application of UNI EN ISO 9001:2008 to the quality management system of the University of Perugia. He is a registered auditor for the Italian Rectors' Confederation (CRUI), that manages a quality management system model that is applied at University level. As lead auditor, he has conducted more than 20 audits at various Italian Universities. He routinely teaches enterprise level short–courses on quality management in small enterprises. Paolo Carbone was chairman of the 8th International Workshop on ADC Modelling and Testing, Perugia, September 2003. He was guest editor of a special issue of the international journal *Measurement* (Elsevier) on ADCs, in 2005. Paolo Carbone is an IEEE member, was Associate Editor of the IEEE Transactions on Circuits and Systems–II from 2000 to 2002 and was Associate Editor of the IEEE Transactions on Circuits and Systems–I from 2005 to 2007. From 2005 to 2008 he was associate editor of the Elsevier journal *Computer Standards and Interfaces*. Since 2008 he is the President of the association TUCEP ([www.tucep.it](http://www.tucep.it)) and coordinates the work of 8 people working with companies and actors of the regional government, to propose and manage educational and research projects, mainly based on european social funds.

## Academic Career

- 2003– Full Professor of Electronic Instrumentation at the University of Perugia, Italy
- 2000–2003 Associate Professor of Electronic Instrumentation at the University of Perugia, Italy
- 1997–2000 Researcher at the University of Perugia, Italy
- 1994–1997 Researcher at the University of Roma III, Italy

**Education** University of California, Los Angeles classes in electr. eng. program, US funded scholarship, 1989  
University of Padova, Italy *Dottorato di ricerca* degree, 1994  
*Laurea* degree, 1990