

THE COMPANY

Sistene E.S.CO. is an Energy Service Company based in Padova (Northern Italy, www.sistene.it) which deals with Energy Audits, Energetic Labelling of buildings, industrial consultancy (developing of innovative products for energy saving in buildings), design of energy retrofit and consulting in construction (residential areas, commercial and industrial) and manufacturing processes.

In recent years Sistene E.S.CO. has increased its interest in the research on how to suitably apply (with reference to Life Cycle Cost analysis (LCC)).

Skills and competences

Currently, our Company presents these skills and expertise, constantly improving on energy field and design:

- **energy audit** (mainly in projects of energy efficiency and renewable) concerning both the industrial and private sectors, and Public Administration. We have enough experience to test an integrated land management thanks to our network.
- **Training services** in energy field, by teaching, but also through research and development of new technologies, processes and services which led to the publication of over 60 papers and a book written by the Company's shareholders.
- **Management and maintenance of plants.** The team presents a deep knowledge relating to ventilation, heating systems, fed by biomass and other renewable sources and powered by fossil fuels.
- **Design of energy efficiency measures.**
- **Know-how concerning economic and fiscal incentives and facilitations**, as well as managing practices related to the field of energy.
- **Consultancy for design and development of a new product** for energy conservation and a better indoor air quality in buildings.

In the past few years Sistene E.S.CO. has been integrating its competences and skills with **those of other complementary Companies** to provide its customers with a complete panel of services in order to improved efficiency in energy and environmental sustainability.

Sistene E.S.Co.'s Team:

- **Marco Alberto Zecchin.** Master of architecture with a final thesis on the redevelopment of residential buildings with particular reference to energy performance. He graduated in 2007 at IUAV (Architecture University of Venice) under the supervision of Prof. F. Peron. Since 2008 he works on energy efficiency. Since 2007, he works as architect with local firms based in Venice and Padua (Italy). Cofounder and administrator of Sistene E.S.CO., with the role of Project management and energy audit mainly in projects of energy efficiency and renewable. Some of the Projects, in which he participated, are listed below. He teaches about energy retrofit, incentives and obligations in terms of energy saving and energy production from renewable sources.
- **Valentina Raisa,** PhD, since 2006 works as architect with a bureau in Modena (I). She had the Doctorate in Technology of Architecture (2004) and Master degree in Architecture (2000) at the University of Ferrara under the supervision of prof. Sante Mazzacane. In 2009 she had the qualification as Certifier for the energetic labelling of buildings and in 2015 she became an **Accredited Energy Manager**, qualified to conduct Energy Audits according to

EN 16247 series of standards. At present she is active member of many Italian (UNI and CTI) and European (CEN TC 156 – WG2) standardization working groups mainly about ventilation for buildings. In fact she is still working with the European WG for the developing and revision of the following standards: UNI 10339, UNI 8199, EN 13141-8, EN 13141-11, EN 13142, prEN 16798-1 prTR16798-2, WI0156168. In 2008 she was one of the founders of Sistene E.S.CO.. So far she has produced more than 60 papers presented to both national and international congresses or published in national journals. In October 2010 was published by Delfino Editor her first book, written with Roberto Zecchin (Professor, University of Padova) and Stefano Schiavon (PhD, University of California, Berkley) about ventilation in residential buildings. From 2006 to 2009 she was consultant of Aldes Italia S.p.A and from 2009 she is consultant of Thesan S.p.A, where she cooperates with the internal working groups for both designing of new innovative ventilation decentralized units and cultural and marketing activities (she is in charge to develop in next months a section called “on air” in the company’s blog “air sharing” <http://www.thesan.com/iaq/blog/>).

- **Roberto Zecchin**, male, Graduated in Mechanical Engineering at University of Padova (Italy), post-graduated in Cryogenics at Southampton University (UK). Initially researcher at Laboratory for Refrigeration Technology of CNR, Padova, later lecturer of Refrigeration Technology, Applied Physics and Applied Acoustics at Padova University, Applied Physics and HVAC at IUAV (University of Architecture, Venice). After a period as associate professor, since 1986 full professor of Thermal Systems at the Faculty of Engineering, Padova University until his retirement in 2013. As professor, responsible of several Erasmus Projects with leading foreign universities (Danish Technical University, Fachhochschule Koeln, Technische Universita et Muenchen). Member of the academic staff of the PhD school in Industrial Engineering, member of Commission E2 (Heat Pumps and Energy Recovery) of the International Institute of Refrigeration, and CT 241 (Air Conditioning Systems) of CTI. Working in several Standard Committees within UNI and CEN (WG2 and WG19 of Technical Committee 156 – Ventilation for buildings), with particular reference to indoor environmental quality and energy use in buildings. Since 1978 member of AiCARR¹ also as vice-president and member of the board. The **research activity** is mainly concerned with HVAC, indoor environmental quality, energy conservation, energy audit and acoustics and is documented by numerous papers and conference proceedings at national and international level. Manager of research in several research contracts with institutions at national level (e.g. C.N.R.: Progetto Finalizzato Energetica) and European level (e.g. *ICE: Ideal Cabin Environment*, 6th Framework European Project, Contract No.: FP6-2003-AERO-1-561131) and industries (e.g. Energy audit and energy efficiency improvement at Acqua Vera S.p.A, now property of Nestlè). At the same University promoter and Director of the continuing education courses in "Applied Acoustics" and "Energy and Building Physics" and master courses in “Noise Pollution Control” and “Solar Energy Technologies in African Countries” (in collaboration with the Ecole Nationale Supérieure des Travaux Publics de Yaoundé, Cameroun). Head of the Dipartimento di Fisica Tecnica, University of Padova, from 2006 until the merging in 2012 of this department into the new Dipartimento di Ingegneria Industriale (Department of Industrial Engineering). Currently conducting design and consultancy activity, as partner and consultant of Manens-Tifs SpA, Padova (<http://www.manens-tifs.it/>) and Tifs Partecipazioni S.r.l. in the field of HVAC, energy efficiency, renewable and acoustics.

¹ **AICARR: Associazione Italiana per il Condizionamento dell'aria Riscaldamento e Refrigerazione** - Italian Association of Heating, Air Conditioning and Refrigeration - www.aicarr.org. AICARR is a National association with more than 2500 members.