CURRICULUM
DR. GUGLIELMO LIBERATI

EDUCATION:
University Degree in Physics (Dec 1975- Università di Firenze)

Area: Nuclear Electronics – experimental
Thesis: *"A novel waveform discrimination technique for mean lifetime measurements in the order of hundreds of picoseconds with Ge(Li) coaxial detectors"* (published).
Advisor: Prof. Nello Taccetti

MASTER (Post University): *MANAGEMENT OF INNOVATION*
1993-1994 Scuola Superiore di Studi e Perfezionamento S.Anna (Pisa)
Project Work: *"Survey on the status of R&D in USA Electric Utilities"*.
Advisor: Prof. Massimo Paoli

Known languages:
Italian: (mother tongue)
English: Cambridge Proficiency
French: Good.

PRESENT POSITIONS:

- **Affilate Researcher** lnterdisciplinary Research Center on Sustainability and Climate - **S.Anna Superior School of Advanced Studies (Italy)**
- **Free Consultant on Energy** (since Jan 2011)
  last most relevant consultancies:
  Tokyo Technology Institute (Japan)
  Jinfan Solar (China)
  S.Anna School of Advanced Studies (Italy)
  Magaldi Power (Italy)
  Vereniging voor Zonnekrachtcentrales (the Netherlands)
- **President - Italian Hydrogen Forum** since 2014 (and Co-Founder in 1997)

FORMER PROFESSIONAL CARREER:

ESTELA (European Solar Thermal Electricity Association)
Coordinator – Scientific and Technological Committee (Jan 2011 Dec 2013)

ENEL Engineering and Innovation
Project Manager – Project Archimede (Molten salt Parabolic trough Solar Power Plant) (March 2009 Dec 2010)

Enel representative in ESTELA Executive Committee. (March 2008 – Dec

2010)

ENEL Produzione - Research - Technology Scouting (Jan 2002-March 2009)

Duties: Survey, analysis and proposals for new technologies to be applied in electric generation plants to reduce costs and enhance their performance and competitiveness. (frequent trips, Europe, USA, Japan, high level contacts with manufacturers and Utilities)

ENEL – Produzione – Ricerca - Pisa

Business Development Manager - Fuel Cells. (Dec 2000 – Jan 2002)

Duties: define and promote national and international activities to foster the introduction of Fuel Cells and Distributed Generation.

Enel responsible for Fuel Cell plant international Project *"300 kW Pressurized Solid Oxide Fuel Cell plant" (joint project RWE/Enel)*

ENEL – Produzione – Ricerca – Pisa

Research Program Controller (Sept 1999 – Dec 2000)

ENEL – Struttura Ricerca (Milan) –

Responsible for Strategic Portfolio definition for Electric Generation Area (Sept 1998 – Sept 1999)

Duties: Planning and promotion of research activities related to Electric Generation Area.

ENEL – Ricerca – Polo Termico – Pisa

Responsible for Research planning (Nov 1995 – Sept 1998)

Duties:

Planning and structuring of research plan , technical and economic analysis of the projects. Analysis of financing instruments, preparation of proposals of national and European programs.(JOULE, THERMIE, ESPRIT).

ENEL – Thermal and Nuclear Research Center - Pisa

Senior Researcher In Energetic Systems (Jan 1979 – Nov /1995)

Duties:

Analysis of energetic systems, optimization of energetic conversion cycles and related fields:

- *Thermodynamic solar plants*
- *Fuel Cells*
- *Analysis and evaluation of new technologies for electricity production and flue gas cleanup systems*
- *Electrostatic precipitation development and optimization*

OTHER SPECIFIC DUTIES IN ENEL (ad personam):

project EURELIOS (EEC 1 MWe Central receiver Solar Thermal Power

Plant in Adrano): *Responsible for measurements, data acquisition and analysis (1979-1984)*

Cooperation Italy–USA DOE on Thermodynamic Solar Power Plants, Project C: "Optimization studies on Central Receiver Solar Power Plants". - *Responsible of the study. (1980-1981)*

Project EURELIOS DASS (Data Acquisition and Supervision System for EURELIOS Solar Power Plant – EEC Project): *ENEL Responsible . (1981-1984)*

Project SESTA (Compressed Air Energy storage in geothermal reservoirs) : *Responsible for experimental activities (1984 – 1988)*

Enel Representative in CEI (Italian IEC extension) for TC 105 "Fuel Cell Technologies"

ACADEMIC ACTIVITY:

Universtà degli Studi di Firenze - Facoltà di Scienze Matematiche Fisiche e Naturali, Corso di laurea in Fisica
Assistant Apr 1977 – Dec 1977
Duties: Assistant to course "Physics I"

Associated to Italian National Institute of Nuclear Physics (INFN). - Low energies section

FREE PROFESSION BEFORE 2011:
Cooperation with Magnetek / Power One Development of innovative small sized PEM fuel cell systems. (2000 - 2007)
Cooperation with University of Florence – Centralized Computer Center for the development of procedures for on-line interaction with centralized archives (Jan 1976 – Mar 1977)
Cooperation with University of Firenze, Chemistry dept, for the development of electronic instrumentation applied to electronegativity measurements. (Jan 1976 – Jun 1976)
Cooperation with University of Firenze, Medicine Dept. Pediatric Clinic, for statistical analysis and interpretation of experimental data. (Jun 1977 - Oct 1977)

ACTIVITIES CARRIED OUT ABROAD
Cooperation Italy/USA: c/o Sandia Laboratories : "Optimization studies on Central Receiver Solar Power Plants". Livermore (USA), Oct/Nov 1980

EURELIOS 1 MWe Solar Plant– DASS Project: Consultant for EEC.
Bruxelles – Paris (Jun 1981 – Jun 1984)

Other courses:
SDA Bocconi (Milano):

- Strategie tecnologiche e ruolo della commissione Europea (Oct 1996)
- Misurare le performance della R&S (Nov 1996)

PATENTS:

- "*Alimentatore protetto del tipo a commutazione ad alta frequenza, in particolare per precipitatori elettrostatici*" brevetto n 0001247337
- "*A high frequency switching type protected power supply, in particular for electrostatic precipitators*" U.S. Patent n. 4779182
- "*Power supply for electrostatic precipitators*". European Patent n.508961
- *"Piastre bipolari e di estremità composte per celle a combustibile, pila a combustibile comprendente dette piastre e metodo di produzione" (Bipolar and end plates in composite material for fuel cells and production method)* IT Pat. n. 0001343306
- "*Dispositivo per il controllo dell'allineamento ottico dei collettori parabolici lineari in centrali solari a concentrazione*" *(Device for the otical alignment of linear parabolic collectors in CSP solar plants)* Pat. pending