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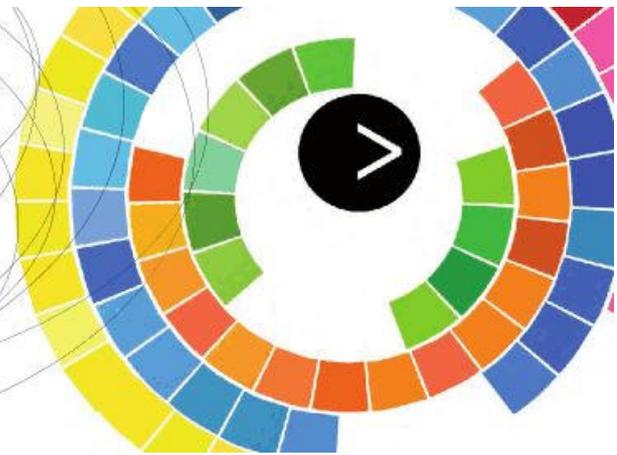
labelab
WasteWaterEnergy Engineering

Fare i conti con l'ambiente

Rifiuti acqua energia

**Rave
nna**
25/26/27
settembre **2013**

6[^]EDIZIONE



NEW INDICATORS FOR A BETTER WORLD

International Web Conference

Ravenna September 26, 2013

Sala Verde - Camera di Commercio Industria Artigianato

Agricoltura di Ravenna

CURRICULUM OF THE SPEAKERS

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CURRICULUM VITAE

Maria Betti

Maria Betti obtained her PhD in Chemistry at the University of Pisa (Italy) where she still gives lectures as Professor of Instrumental Analytical Chemistry for Environmental Research. She has published more than 200 scientific articles related to environmental chemistry and protection. She has worked in several laboratories in Europe and the USA. From 1991 to 2008, she led the Analytical and Environment Section of the Institute for Transuranium Elements (ITU) in Karlsruhe (Germany) which is part of the European Commission's Joint Research Centre. In August 2008, she moved to Monaco where she was appointed Director of the IAEA Marine Environment Laboratories. From January 2010 until September 2012 she was responsible for the entire Environment Programme of the IAEA, heading a new Division called IAEA Environment Laboratories, which consisted of the Marine Environment Laboratories in Monaco and of the Terrestrial Laboratory in Seibersdorf (Austria). Since 1st October 2012 she is Director of the JRC Institute for Environment and Sustainability in Ispra (Italy).

Prof. Luigi Bruzzi

He graduated in Industrial Chemistry at the University of Bologna in 1959, he obtained a Diploma in Nuclear Engineering from the same University in 1963. He has carried out research and design activities at the CNEN (later ENEA) in the period 1962-1985. From 1970 to 1995 has been lecturing on nuclear energy at the Faculty of Engineering, University of Bologna as Associate Professor. From 1994 to 2006 Has been lecturing at the Faculty of Science as an Associate Professor of Environmental Science. Now is lecturing in many Universities in Italy and abroad. His scientific career was spent in studies and researches on energy and environment. He is author of many books and scientific publications.

Alice Newton

An internationally known Chemical Oceanographer, Dr Newton has made an important contribution to the assessment of eutrophication in coastal lagoons. She has more than 20 years of experience in coordinating several international and national research programmes across a number of scientific disciplines. Dr Newton was the Chairperson of LOICZ (Land ocean interactions in the coastal zone) a core project of IGBP (the International Biosphere-Geosphere Programme) and IHDP (the International Human Dimension Programme) from 2009 to 2011. Dr Newton advises various national, international and multinational governmental and non-governmental organisations as well as research funding agencies, on aspects of science-policy implementation, (e.g. the Water Framework Directive, the Marine Strategy Framework Directive and OSPAR-CAMP). She has also served on numerous national and international committees and boards, including 6 editorial boards, and has forged strong links with a range of industry and stakeholder organisations. The author or co-author of 52 scientific and academic publications since 2003, Dr Newton has given numerous

presentations at international conferences over the last 10 years. She is an active member of several science societies. Dr Newton has been awarded 7 fellowships/scholarships since 2003.

A former Head of the Department of Chemistry and Biochemistry at the University of Algarve, where she remains a tenured professor, Dr Newton has contributed as visiting professor to the training of post-graduate students at 15 other Universities around the world. She has supervised 50 Master students, 13 Doctoral students and 7 Postdoctoral fellows from many different countries. She has also formulated and successfully.

Marco Abbiati

Marco Abbiati graduated in Biological Sciences at the University of Pisa, and obtained the PhD in Environmental Sciences (Science of the Sea) at the University of Genova (Italy). Professor of ecology at the University of Bologna since 2002, he is teaching marine and applied ecology. He has worked in several laboratories in Europe, Australia and USA. In 2000-2003 he has organized and directed the II level Master in ICZM. From 2008 to 2012, he led the new Master degree in Marine Biology. Is member of the Board of several scientific societies and institutions. He has published more than 100 scientific articles related to impact assessment, conservation and management of marine and coastal habitat and marine resources. His studies have been supported by national and international research grants from Italian Ministries, European Commission, private companies.

Angel Del Valls

Prof. Angel del Valls is a full professor at the University of Cádiz in the department of Physical Chemistry. He coordinates the UNESCO/UNITWIN/Wicop Bank Santander Chair and two programs of Master and Ph.D. Erasmus Mundus, Master: Water and Coastal Management and Ph.D. Marine and Coastal Management. Prof. DelValls has more than 250 research publication being more than 150 included in JCR/SCI report. He has supervised more than 15 Ph.D. Thesis and more than 50 Master Thesis in the area of marine and Environmental Sciences, special focused on aquatic ecosystems. He has been responsible of more than 100 research and educational projects both at National and International level. Prof. DelValls has been visiting researcher and professor in different institutions around the world mentioning some of them, include: Scripps Institution of Oceanography, Universidad Federal do Sao Paulo, Russian State Hydrometeorological University among more than 40 institutions.

Cristina Sabbioni

Is Acting Director at the Institute of Atmospheric Sciences and Climate (ISAC) within the Italian National Research Council (CNR).

Her main scientific interest are focused on damage to Cultural Heritage due to atmospheric interaction, including the impact of microclimate, multipollutants and climate on materials and structures characterising cultural assets.

She has been project leader in national CNR projects and European Projects on damage to Cultural Heritage since 1984.

She has been Chairperson of the Expert Advisory Group (EAG) of the Key Action ‘The City of Tomorrow and Cultural Heritage’ within the 5th EU Framework Programme on Research. She has coordinated the EC Noah’ Ark Project (Global climate change impact on built heritage and cultural landscapes) which in 2009 the Grand Prize of Europa Nostra. She is Professor of ‘Environmental Physics’ at the University of Bologna. She is the Italian Member of the Executive Board of the Joint Programming Initiative “Cultural Heritage and Global Change: a new Challenge for Europe” coordinated by Italy.

Filomena Martins

Filomena Martins is a Geographer with a PhD in Sciences Applied to Environment, obtained at University of Aveiro. She taught in several secondary schools (1982 – 1985) and in a High School of Education (Polytechnic Institute of Viseu) during 1985. Start functions as teacher and researcher at University of Aveiro in the end of 1985 until now. Responsible of Sea Sciences and Coastal Zone Master Course, teaches a set of courses in the field of Environment, Territorial Planning, Natural Resources, Sea Sciences and Coastal Management, in the 1st, 2nd and 3rd cycles of studies, at University of Aveiro and foreign Universities (Spain – UCA, Italy – U.Cagliari, Russia - RSHU, Uruguay – UdelaR). Develops research in the fields of Integrated Coastal Zone Planning and Management, Natural and Cultural Heritage Conservation, Participation and Citizenship, Social Risk Perception and Management, Sustainable Development and Local Agenda 21, with participation in several scientific and applied projects (e.g. ECOSAL-ATLANTIS, AQUA_ADD, APSAT/SUDOE, PRORia) and is member of several international networks (e.g. IBERMAR_Cyted, AEIFR). She has published more than 100 scientific articles, book chapters and reports, in the mentioned research fields.

Franco Casali

Franco Casali was graduated in Physics with highest honours on 1959, when he was 22 year old. He qualified as a University teacher in “Nuclear Reactor Physics” in 1967. In 1965 he became the Director of the Nuclear Reactor Center, belonging to CNEN (Comitato Nazionale per l’Energia Nucleare) with two experimental reactors. Then he assumed the leadership of the Physics and Computing Science Division of ENEA. Several times he was asked to work for the United Nations (IAEA) as an expert in nuclear power plants (UN Development Projects). In November 1985 he passed to the University of Bologna where he taught “Nuclear Methods of Technological Analysis”, “Archaeometry” and “Digital image elaboration”.

From 1988 to 1991 he was Director of the Health Physics Postgraduate School of the University of Bologna. His research activity was devoted from many years to the development of Digital Radiography and Computed Tomography systems for both low and high energy X-rays either in the field of cultural heritage either for medical applications. He published more than 150 papers in international journals.

Now, retired from University, he is a member of the Academy of Science of Bologna and he is responsible of the Project related to the development of new investigation tools for Cultural of Centro Fermi in Rome.

Francisco Serrano-Bernardo

PhD, Environmental Sciences. Associate Professor at the University of Granada. MSc in Restoration of degraded areas. He has been teaching Environmental Impact Assessment (EIA) and Project Management in the Environmental Sciences Degree and in several Masters and PhD. Author of more than 50 publications related to the EIA, environmental management (EM) in nature protected areas, vegetal cover and landscape restoration, territory planning, impact of tourism activities in the environment and management of natural resources. He is visiting professor in several universities of Spain and Latin America in topics related to the biodiversity conservation and territory management and leads some research projects about these items related to human activities.

Ángela García-Maraver¹

Prof. Miguel L. Rodríguez (PhD) is Associate Professor in the Applied Mathematics Department at the University of Granada. He teaches at the Faculty of Economics. His investigation topics are optimization and approximation. He is the author of 18 indexed articles in Journal Citation Reports and 5 articles related to teaching innovation; Moreover, he is coauthor of 2 books on optimization. He is the responsible for the maintenance of several web platforms based on Moodle.

Miguel Luis Rodríguez²

PhD. Angela Garcia-Maraver: teacher and researcher at University of Granada. She has published several scientific articles related to environmental engineering and renewable energies and has participated in several international conferences. She has given lectures on biomass and waste management in Environmental Science degree at University of Granada.

¹ co-author with Francisco Serrano

² co-author with Francisco Serrano

Pedro Fernandez Carrasco

Pedro Fernandez obtained his PhD in Civil Engineering at the Politecnical University of Madrid (Spain) where he still gives lectures as Professor of Oceanography, Coastal and City Planning and Wave Energy at the Environmental Department. He has published more than 100 scientific articles related to environmental, coastal planning and development. He has worked also in Spanish Environmental Water Laboratory from 1993 till 2003. From 2010 he gives lectures as professor of Wave Energy at the Universidad Don Bosco (El Salvador, Central America). Since 2008 he participates in different research programs related with coastal development and planning with Universidad de Valparaiso (Chile). This year 2013 he will start to give lectures as Professor of Coastal and Fluvial City Planning at the Universidad Católica de Nuestra Señora de la Asunción (Paraguay). Since 2007 he is Director of the Development and Civil Engineering Group where he has participate and collaborate with communities and institutions in Camboya, Senegal, Cabo Verde, Burkina Faso, Ethiopia, DR Congo and Peru. He obtained his Bachelor degree in Anthropology in 2013. He is founder of the Coastal Planning Group since 2011, a scientific, cultural, entrepreneur and social community all over the world with more than 2000 members.

Simona Verità

She studied at the University of Bologna where she graduated in Physics in 2001 obtained the PhD in Environmental Sciences in 2009. She is author of many publications on energy and sustainable development and she has been lecturing in professional courses for Energy Managers. She spent her research activity on environmental sustainability of the energy processes, radioprotection and natural radioactivity, environmental models for electromagnetic fields and pollutants dispersion in atmosphere, life cycle assessment and energy savings and efficiency. She is now an expert in environmental sciences and energy consultant; currently she is working on European projects to develop energy innovation in the industrial processes and models for sustainable energy systems.

Ilaria Noemi De Carlo

Ilaria Noemi De Carlo is a translator and a linguistic mediator. She is graduated in intercultural and linguistic mediation, at the department of Advanced School of Modern Languages for Interpreters and Translators of the University of Bologna at Forlì, and is now attending the master degree in Translation. She is going to graduate next December. She studies English and Spanish, but she knows French, too. She has translated the essay “La gestione sostenibile dell’ambiente. Principi, contesti e metodi” as part of her thesis project, in collaboration with publishing house CLUEB of Bologna. She has worked as a translator, but also as an intercultural and linguistic mediator. She has also worked as tourist guide and journalist.

Alessandra Bonoli

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Alessandra Bonoli is Associate Professor in Raw Material Engineering and Resources and Recycling at the University of Bologna, Department of Civil, Chemical, Environment and Material Engineering. She has taught a number of bachelor, master, international master and PHD classes. She has authored more than 200 papers.

Her research themes are related with mineral processing, solid waste recycling, water supply, waste water treatment, Life Cycle Assessment.

She created in 2011 the Department Research Center for international COoperation and Development on Engineering, Environment and Emergency (CODE³) for the international cooperation in Environmental Engineering.

She coordinates a new research group of "Engineering of Transition" that is developing researches oriented to building a sustainable world, from the point of view of environmental, social and economic, by saving and valorizing natural resources: raw materials, water and energy.

Several themes of study and research to support design and management, in urban and industrial context, that can be summarized as follows: treatment, valorization and recycling of raw materials and solid waste; water supply, water and groundwater saving, wastewater recovery and recycling in relation with urban, industrial and agricultural uses; energy recovery from solid waste and study of environmental impacts and waste production in relation with renewable energy sources; research of unconventional or recycled materials for building and construction: recycled aggregates from demolition, utilization of straw, hemp, raw land, etc. for energy savings and to reduce climate-change emissions, for zero impact buildings, and in relation to greater simplicity in the process of rebuilding in areas affected by seismic events; support to technological innovation in industrial R&D by recycling, savings and minimizing of environmental impacts: Ecodesign, Life Cycle Assessment and Life Cycle Cost Analysis, evaluation of Ecological Footprint, Carbon and Water footprint, multicriteria analysis and risk analysis in several production issues and in many environmental engineering activities (soil and polluted water reclamation, resources use and saving, waste management, etc.); application of the concepts of resilience, green technologies and "site specific" design in rural and urban areas in order to reduce climate-change emissions and to save water, energy, soil and natural resources. A specific stream of research concerns the application of all these researches and studies in cooperation activities for emerging and developing countries.

Collaboration with other European Research and Academic Departments

- CITG TU Delft University, Delft University of Technology Faculty Civil Engineering and Geosciences (Prof. Peter Rem). Research: "Application of a LCA model to solid waste separation for an economic and environmental assessment of the recycling technologies".
- Civil Engineering and Engineering Mechanics Department of Columbia University, New York City (Prof. Patricia J. Culligan). Research: "Quantifying the Fundamental Behaviour of Green Roofs in a Urban Environment".
- "Gheorghe Asachi" Technical University of Iasi, Department of Environmental Engineering and Management. Iasi, Romania. (Prof. Maria Gavrilescu). Research: "A comparison between natural inert and inert waste from CDW"

- Fachhochschule Nordwestschweiz Hochschule für Life Sciences, Institut für Ecopreneurship. Muttenz (CH). Prof. Philippe Corvini. Research: Characterisation of waste water treatment effectiveness using a modified life cycle analysis (LCA) method.
- Área de Tecnologías del Medio Ambiente, Departamento de Ingeniería Civil, Politécnico de Granada España (Spain). (Prof. Francisco Serrano Bernardo). Research: The sustainable management of natural resources and the Environmental Impact Assessment.
- Technical University of Catalonia, Barcelona. (Prof. Marianna Garfi). Research: “Theoretical basis of the Multicriteria Analysis and the main environmental engineering applications into developing countries”.
- Universidad de Cantabria, Spain. "GIA (Grupo de Ingeniería Ambiental)", "Departamento de Ciencias y Técnicas del Agua y del Medio Ambiente". (Prof. Amaya Lobo García de Cortázar). Research: “The Landfill Mining for the recovery of raw material”
- DTU, University of Copenhagen DK. (Prof. Astrup). Research: “Carbon flows of waste management system in Denmark”.
- Clean Energy Research Centre, University of British Columbia, Vancouver, BC, Canada (Prof. Hsiaotao T. Bi). Delta Research Corp., Delta, Canada. Delta Research Corp., Delta, Canada (Dr. Staffan Melin), Research: Life Cycle Assessment model application in biomass management
- **Task Leader and Coordinator of a Work Package (WP5): “LCA and Risk characterisation of selected technologies”** inside the MINOTAURUS EU project (Microorganism and enzyme Immobilization: NOvel Techniques and Approaches for Upgraded Remediation of Underground-, wastewater and Soil).
- **Task Leader of a Work Package (CP2): “Key Elements for Optimal Integrated Urban Solid Waste Management - International Experiences and Best Practices”** inside the IUWMM EU project (Integrated of Urban Waste Management Model).

Giorgio-Maria Giacomelli

Giorgio-Maria Giacomelli obtained the Laurea in Physics at University of Bologna (Italy) in 1954, the PhD in physics at University of Rochester (NY, USA) in 1958, and became Professor in 1971 in Padua, 1974 in Bologna. He published >750 scientific papers in High Energy Physics, Energy fields and applied physics. He supervised

>115 Laurea theses and >30 PhD theses. He worked in many Universities in Europe, USA, Japan, Developing countries. Since the '60s he was team leader.

Among his results one may recall: discovery of resonances/structures in low energy total cross sections, rising $\sigma_{\text{tot}}(K+p)$ in 1971, Serpukhov, USSR, σ_{tot} ,

σ_{tot} in 1974-80 and σ_{tot} in 1989, FNAL; he co-discovered the atmospheric neutrino oscillations, MACRO at Gran Sasso, 1998; recently obtained a 3.5 σ confirmation in OPERA nuclear emulsions,

He was member of the main committees of OPAL at LEP, co-spokesperson of MACRO, chairman of Publication Committees of OPERA, ANTARES. From 1975 to 1988 was director of the Bologna physics institute/dept. Is fellow of the APS, Emeritus Professor at Bologna Univ, collaborator of INFN, CERN, chairman of web popularizing committee ScienzaGiovane.

Marco Sumini

Born in Alessandria, July 18th, 1955. Degree in Nuclear Engineering at Politecnico di Torino, 1980. PhD in Energetics at Politecnico di Torino, 1987.

1987 to date: Associate Professor of the Engineering Faculty of the University of Bologna. From 1987 charged of courses in Nuclear Reactor Physics for the College in Nuclear Engineering and, from 2005, for the College in Energy Engineering.

2001 to date, member of the Council of the PhD in Nuclear and Energy Engineering and Environmental Control of the University of Bologna.

Research on the modelization of neutron transport in nuclear reactors, nuclear reactor dynamics, particle transport, computational methods, basics plasma physics and complex system dynamics, non standard neutron sources for medical application (Plasma Focus).

Head of the Plasma Focus Laboratory of DIENCA.

Member of AAAS, CNISM, IAIA.

Scientific consultant services for ALSTOM, ENEA, SOGIN, APAT, CRF.

Current research projects: - Development of methods and codes for the analysis of the environmental impact of accidental releases of radioactive contaminants with application to the decommissioning activities. - Development of deterministic and Monte Carlo models for the core design of the new gen-iv nuclear reactors. In partnership with UCB and ENEA. - Study of possible medical applications of the Plasma Focus technology as head and scientific referee of the activities developed in the framework of the "Study of Plasma Focus Devices Medical Applications in Cancer Diagnosis and Therapy" agreement between the Alma Mater S.r.l. of the Bologna University and the ULSS 12 "Veneziana", for short lived radioisotopes production for PET and particle beams for IORT applications.

From 2008, Director of the second level Master in Design and Management of Advanced Nuclear Systems of the University of Bologna.