



Name
Address
Phone
E-mail
Nationality
Date of birth

ANTONIO PANTALEO

VIA GUIDO DE RUGGIERO 1, 70125 BARI, ITALY

Tel: 3937980448 (Ita)– 3207980448 (Ita) – (+44)07532292695 (UK)

a.pantaleo@imperial.ac.uk; antonio.pantaleo@uniba.it

Italy

ROMA, 25 SEPTEMBER 1974

KEYWORDS

bioenergy systems, cogeneration, energy efficiency in food processing, energy systems modelling, renewable energy, life cycle assessment

CORE SKILLS

With 15 years of academic and consultancy experience in energy engineering, I have a good balance of theory and practice in the fields of renewable energy, power systems, energy management in industrial and residential sectors. Key skills include biomass, wind and PV power plants design, cogeneration sizing and thermo-economic optimization, bioenergy logistics, energy efficiency investments, ESCO business models. Specific research interests regard biomass wastes management, on site renewable CHP in food processing and agricultural sector.

Member of the Italian Biofuel platform, of the Italian board of experts for technical due diligence of renewable energy and CHP power plants (in agreement with Deliberation AEEG-GOP 43/2010), chartered engineer (*Ordine degli Ingegneri della Provincia di Bari since 2000, n°6038*)

ACADEMIC EXPERIENCE

- from 06/2006 till now academic researcher
- Università degli studi di Bari Department DISAAT, Via Amendola 165/A 70125 BA

ACADEMIC RESEARCHER AND ASSISTANT PROFESSOR of renewable energy systems, Department of agro-environmental and landscape sciences (SSD AGR/10); Teaching subject '*Renewable energy in agriculture and agro-industrial field*' and '*Biomass processing and energy conversion systems*' since academic year 2012/13 (60 hours per teaching module); eligible as associate professor in Applied Physics (scientific sector 09/C2 – SSD ING-IND11) according to Italian rules

Authored about 95 scientific works among book chapters, reports, papers on ISI journals related to renewable and distributed energy (26 papers); led 2 international research projects and participated to 8 national or international research projects since 2006;

Research quality indicators: Italian VQR 2004-10: 1,5 over 2; H-factor Scopus 8; H-factor Google Scholar 10; research gate score 22.5 (accessed 01-07-2015)

Main research fields: energy-environmental-economic assessment of bioenergy routes from agricultural, forestry and food processing biomass for CHP generation; techno-economic optimization of biomass production systems, logistics of supply, pre-treatments and conditioning, energy conversion, multi-fuel cogeneration systems; demand side management and energy saving measures in agro-industrial and residential fields.

- from 06/2006 till now research associate, Imperial College London, Centre for Energy Policy and Technology South Kensington Campus, 7SW 2 AZ, London, UK

RESEARCH ASSOCIATE, Centre for Energy Policy and Technology (ICEPT), Centre for Environmental Policy, and Centre for Process Systems Engineering (CPSE), Chemical Engineering Department, Imperial College London (part time with average 12-32 hours/week of work for the College) and attendance of the College for 1 week/month on average)) Main research fields: operational and strategic optimization of CHP systems and energy distribution to end users by means of MILP tools (AIMMS, GAMS); integration of bioenergy into existing urban energy systems; use of biofuels in sparse district heating and cooling systems;

use of organic by-products from food processing for biogas and biomethane; assessment of EU energy policy measures to facilitate the use of biomass to energy chains, energy saving measures, small scale cogeneration; assessment of energy markets, biomass and biofuel markets, cost/quantity supply curves.

- from 06/2001 to 06/2006
- Università degli studi di Bari, Department PROGESA (BA)
 - academic
- from 09-2002 to 03/2003
- GSE, Viale maresciallo Pilsudski, Roma, Italian TSO
- from 06/2000 to 06/2001
- Edison Energie Speciali, Via Pietro Nanni Costa, Bologna
Independent power producer

Research associate (assegno di ricerca) Department PROGESA

Fields of research: energysupply and demand in agricultural, food processing and agro-industrial fields; biomass to energy conversion systems (thermochemical and biological); thermo-economic feasibility assessment of biomass to energy chains

Engineer, Italian Transmission System Operator, GSE

Strategy Department, Unit analysis and systems innovation, GSE (ex GRTN) Spa, assessment of the Italian energy supply perspectives, and in particular: Italian generation mix: state of the art and assessment of new and under refurbishment power plant to match the energy demand by 2020; wind energy: perspectives of integration of intermittent generation in the Italian energy mix and related costs and regulation issues

Junior Engineer, Edison Energie Speciali. Fields of activity: wind energy (i) yield assessment and layout optimization, electromagnetic and noise level assessment (ii) support to due diligence activities carried out by independent engineering companies: biomass: (i) assessment of the most promising bioenergy routes in Italy for large scale cogeneration of heat and power; (ii) business plan of a RDF plant and a CHP plant fired by energy crops (5 MWe size)

EDUCATION

- from 05/2008 to 11/2013
- PhD, Imperial College London, UK;
 - PhD, Centre for Process Systems Engineering, Chemical Engineering Department, Imperial College London (UK).
 - Thesis: "Perspectives on the role of bioenergy for distributed heat and power generation"; supervisors Prof Nilay Shah, Dr Ausilio Bauen
 - Research aim: spatially explicit strategic and operational optimization tools for high efficiency cogeneration plants fired by biomass and natural gas in urban and periurban energy systems. Assessment and thermo-economic optimization of district heating systems integrated with biomass cogeneration.
- 25-29/10/2010, Napoli
- ENEA – FIRE, Energy manager
 - Energy manager course, ENEA – FIRE.
 - Energy audit, assessment and design of energy saving and cogeneration investments,
- 21-24/2/2011, Politecnico di Milano
 - Depart of environmental eng
 - Intensive course on biogas plants design and operation
- 5-7/11/2012, University of Manchester, Depart Electric Engineering, (UK)
- Intensive course on smart grid, distributed and on site cogeneration and integration into distribution networks
- 10-13/6/2012, Università di Bari
 - Intensive course on SIMAPRO software for Life Cycle Assessment applied to bioenergy systems, Pre Consultants,
- 05/2000, Università di Bari
 - Intensive course on work safety, Politecnico di Bari
- 10/1993 to 02/2000
- Politecnico di Bari
 - Electrical engineering degree (5 years course, score 110/110 laude), Politecnico di Bari, specific field: energyThesis: Energy crops: techno-economic feasibility assessment in Alta Murgia natural park, Puglia region, Italy"

KEY RESEARCH INTERESTS AND COMPETENCIES

- Energy systems modelling** (i) Spatial and temporal explicit MILP tools for strategic and operational planning of biomass to energy conversion routes, district heating systems and optimal integration of renewable and fossil fuel chains (AIMMS based optimization tools); (ii) Modelling bioenergy into the UK energy systems with MARKAL-Times and building scenarios for penetration of bioenergy for stationary applications
- Bioenergy routes and energy inputs in agriculture** (i) Biomass and bio-wastes resources and energy potential assessment (GIS based tools) for solid, liquid and gas routes, in agricultural, forestry and food processing sectors; (ii) Sustainable energy use in agriculture with specific focus on energy crops, harvesting and conditioning, use of fertilizers and energy balances, including LCA assessment of biomass to energy conversion routes (energy crops and agro-forestry/food processing residues); (iii) Logistics of bioenergy routes and biomass supply chains optimization (harvesting, processing storage, drying and energy conversion); (iv) Optimization of size and location of biogas plants and upgrading to biomethane for grid injection
Bioeconomy and optimal biomass resources allocation to end users (bio-plastics, food, feed, pharmaceuticals, industrial products, energy)
- Energy conversion systems and thermo-economic modelling** (i) biomass and dual fuel energy conversion modelling and thermo-economic assessment for residential and industrial applications; (ii) specific case studies in food processing: coffee torrefaction (high temperature recovery to feed ORC-CHP systems), pasta factory (CHP gas turbine sizing to match heat and power local demand), olive oil production (integration solar thermodynamics and olive cake fuelled boiler to feed an ORC-CHP system), dairy farms (feasibility of solar thermal and biomass boilers to match local heat demand); (iii) specific thermo-economic study on dual fuel externally fired gas turbines (biomass-natural gas) and partial load efficiency assessment to define optimal operating strategies; (iv) integration of thermal energy storage and intermittent renewable energy sources: solar thermodynamic and biomass boilers.
- Demand side assessment and energy efficiency in food processing and supply** (i) Energy savings in food processing operations, with specific focus on: coffee torrefaction (thermal storage of discharged heat), pasta drying (mass-energy balances during drying process and interactions between energy consumption, process parameters and quality of final products), dairy farms (optimal integration of biomass and solar thermal systems in dairy sector), assessment of energy consumption in slaughterhouses and brewery sectors, cooling options by CO₂ transcritical processes in winery sector and related energy consumption assessment; (ii) Demand side strategies for agro-industrial sector (peak shaving, load switching); (iii) energy saving measures in food distribution and retail, logistics and supply chains optimization, with Sainsbury's case studies
- Energy policy** (i) Assessment of energy policy for biomass and renewable-distributed generation in Italy, the UK and Europe; (ii) Market segmentation of potential demand of biomass for energy in the UK, with detailed assessment of food and beverage opportunities and key factors influencing the uptake of biomass; (iii) Assessment of business models for biomass and solar thermal ESCOs providing heat service in agro-industrial, residential and tertiary sector; (iv) Legislative issues, environmental aspects and socio-economic drivers in bio-waste processing
- Wind energy** (i) wind turbines electric modelling and intermittent generation integration in power systems, power quality issues; (ii) micro-siting and wind resource assessment, (iii) HVDC transmission systems for off-shore and analysis of Puglia Region potential
- Experimental researches** Experimental tests on agro-pellet production processes and influence of process parameters on biomass densification; particleboard materials quality assessment by means of torque measurement during wood milling process; finite elements analysis and experimental tests on of wooden joints and wood-silicone adhesives

MAIN RESEARCH PROJECTS

- As coordinator** "The future role of bioenergy in urban areas", funded by British Council and CRUI (Italian coordinator A. Pantaleo, british coordinator A. Bauen, ICEPT, Imperial College, Centre for Energy Policy and Technology, (jan 2006-mar 2007); topic: define best strategies and guidelines for optimal integration of biomass energy in urban areas for stationary applications (CCHP)
- As coordinator of research unit** WP leader of BIOSOLESCO: "Non technical barriers for ESCOs providing heating/cooling from biomass and solar thermal energy in tertiary sector", coordinator NTUA, Finland, Italian coordinator A. Pantaleo, funded by EIE, 18 partners of 8 MC; (july 2008-july 2011); objective: assess business models for ESCO operations and non technical barriers to provide heating and cooling from biomass and solar thermal sources to tertiary and residential end users

Leader of research unit in the project "*Networks of laboratories – integrated energy production from renewable sources in the regional agro-industrial system*" funded by Puglia region, aiming at the establishment of a network of laboratories in the field of biomass energy, 2011-14; *Euro 269.384 – scientific coordinator of Laboratory of solid biomass of DISAAT Department, with instruments to carry out tests on biomass and biofuels quality (ash melting point, biomass LHV, combustion flues, ashes characterization, particulate matter measurements, biomass densification tests, thermographic measurements, etc).*
- As participant to research unit** Project S2Biom, "*Delivery of sustainable supply of non-food biomass to support a resource-efficient bioeconomy in Europe*", led by CEP, Imperial College London, 2013-16 (7th FP) specific analysis of lignocellulosic biomass supply and logistics (in cooperation with Wageningen University), classification, market analyses and techno-economic perspectives by 2020 and 2050 of bio-based products as alternative to lignocellulosic biomass to energy

chains (in cooperation with ECN), assessment of energy policy measures related to bioenergy in the EU

Project BASIS Bioenergy, “A platform to assess your risk from a sustainable wood chip supply”, coordinated by AEBIOM (2004-16) funded by IEE, assessment of state of the art and market opportunities for heat and electricity generation from wood chips in the UK by means of medium-large scale boilers

“Energy in urban areas” funded by BP, led by Imperial College London, CPSE, (2009-2014), assessment of potential for integration of bioenergy in urban areas, by means of MILP based modelling and optimization tools, coordinator Prof Nilay Shah

“Decarbonizing Sainsbury’s energy consumption”, funded by Sainsbury’s and coordinated by Imperial College London: specific assessment of potentials for refurbishment of Sainsbury’s thermal plants to pellet fuel and related logistic, technical, economic, organizational and environmental implications; assessment of sustainable energy management models for Sainsbury’s, coordinator Prof Nilay Shah

Project Celsius-Smart Grids “Combined Efficient Large Scale Integrated Urban Systems”, (2013-16) led by Goteborg City Council, participant Imperial College London, specific work on integration of biomass and natural gas district heating and cooling in urban areas

“A whole system approach to analysing the bioenergy demand and supply: mobilising the long term potential of bioenergy” - TSEC-BIOSYS -, project coordinator A. Bauen, Imperial College London, Centre for Energy Policy and Technology – ICEPT, November 2005 – June 2009 (UKERC), assessment of UK bioenergy demand and supply dynamics, and quantification of potential uptake of biomass for heat and power in the UK by 2020-30 through markets segmentation, qualitative-quantitative approaches and markal-Times modelling tools

“Assessment of biomass chains in Italy” – specific assessment of olive sector in Puglia Region (Project PRIN funded by MIUR, coordinator Prof. Riva, 2004-06);

“Techno-economic potentials and feasibility of biomass to energy chains in Puglia region” (*Studio per la valorizzazione energetica di biomasse agro-forestali nella regione Puglia*) (coordinator Prof. Pellerano, funded by Regione Puglia, 2005-07);

Principal investigator of other researches

Energy saving in food processing, interactions between energy consumption and quality of products with applications to coffee torrefaction, pasta drying, carried out for Siemens Italy 2014-15

Scientific consultancy for ITEA Spa (Ansaldo group), related to regulations, logistics, technical issues for biomass to energy conversion in small scale plants through thermo-chemical processes

Techno-economic feasibility assessment of a biomass power plant feed by olive pruning and olive oil cake, 10 MWe, for Consorzio Oliveti d’Italia, funded by MIPAF, 2008;

Techno-economic feasibility assessment, energy potential assessment and size optimization of medium-small scale biogas plants feed by energy crops and manure in the area of Barsento Local Action Group (Puglia region), 2008

Business plan for the development of small scale lignocellulosic biomass CHP plants based on gasification technologies for Municipalities in the area of Terre di Arneo Local Action Group, Puglia region, 2012

Advisory for submission of industrial research and innovation project in response to national and European calls related to smart use of energy (among the others, for the following customers: Adriatica legnami, Forme industriali, Sedit, Socoges Daneco renewables, Frezza legnami, De Carlo Infissi, Meridionale Servizi, CPL Concordia);

TEACHING AND SEMINARS

Academic courses

Module “Renewable energy in agriculture” Course of management and sustainable development of rural systems, Department DISAAT, Università di Bari 60 teaching hours since 2013/14; module ‘Wood technology and forestry to energy chains’, Course of forestry sciences, Department DISAAT, Università di Bari 90 teaching hours since 2015/16

Other lectureships in Italy

Lectureship Master II level, Università di Foggia (2015) Module “Thermochemical processes for biomass to energy conversion”, 28 teaching hours

Lectureship Master II level ‘Prince’, Politecnico di Bari (2014), Department of mechanical engineering Modules “Energy conversion of biomass”, “Natural gas chains” 42 teaching hours

Lectureship Master II level Università del Salento, Department of engineering (2014) Module “Energy efficiency in food processing” 40 teaching hours

Module “renewable energy in agriculture”, master for technicians at ITS-Locorotondo (BA) 24 teaching hours including technical visits to plants (2014)

Module “Production of alternative energy in agriculture and biomass fuels”, PhD lectureship, 15 teaching hours, biosystems engineering Università di Bari, since 2008

Supervision of PhD students (Mariateresa Carone, “Production and use of pellet for thermal energy”, cycle XXIII, and

Patrizia Tenerelli "Land suitability assessment and GIS-based tools for energy crops to heat and power: applications in Puglia region", Cicle XXI, PhD in biosystems engineering, University of Bari

Module "Energy management in agricultural and forestry sector", course of "Sustainable management of agro-forestry resources", 10 June 2009, Università di Bari

Module "Renewable energy II", Master II level on Energy management, Politecnico di Bari, 24 teaching hours 2007

Lectureship Emas-ecolabel school, regione Puglia 2008-11, related to management, recovery and reuse of agro-industrial by products dei residui agro-industriali; scientific coordination of the teaching activities related to agro-industry;

Seminars related to "Electric generator from biomass: state of the art, perspectives and barriers", Master on Energy resources management, SAFE, Roma, July 2005-2008 (8 lectureship hours per year)

Seminar on white certificates mechanism for energy savings in Italy in the residential and industrial fields, Enel Si (May 2006) (8 teaching hours)

"Energy from biomass: state of the art, perspectives and barriers" October 2005, Master MAPROGES, Manager of novel compost processes and residual biomass management, CIHEAM, IAM. Bari (32 teaching hours)

Member of the Scientific Board of PhD Course on Biosystems Engineering, University of Bari; Tutor of Forestry sciences course, DISAAT Department, University of Bari, since 2008

Module "Harvest equipments and agricultural mechanization", course "Training on the job for IRAQ I officials, TOJ", funded by Italian Ministry of foreign affairs for operators of Ministry of agriculture of Iraq, 6 July 2012, CIHEAM, IAM. Bari

"Perspectives of bioenergy in urban areas" 12 December 2011, Energy Future laboratory, Imperial College London, seminar within the project "Urban energy systems"

"State of the art of biomass to energy chains in Italy: legislative framework, sustainability implications and comparisons with the Brazilian scenario", March 2011, seminar at UFSB, Università federale di Salvador de Bahia, Brasile, in collaboration with Prof Ednildo Andrade Torres

Module "Machines for crops production", course "Agricultural machinery and mechanization of main Mediterranean crops: technical experiences and innovations", funded by Italian Ministry of foreign affairs for operators of Ministry of agriculture of Iraq, 14 October 2009, CIHEAM, IAM. Bari (8 hours teaching)

Seminar "Bioenergy routes modelling in Markal-Times: the case of heat and power" 14 November 2008, Imperial College London (project TSEC-Biosys Theme 1 – Topic 1.1.)

Seminar "Biomass heat and power market segment analysis" 13 November 2008, Imperial College London (project TSEC-Biosys Theme 1 – Topic 1.1.)

Organizator of workshop "The future role of bioenergy: researches trends" 21.03-2007, project British Council-CRUI, Università di Bari

Seminar "Electricity from biomass: state of the art in Italy and the UK", 19-06-2006, Imperial College

Seminar "Bioenergy logistics: overview and research trends", 31-10-06, Energy Future laboratory, Imperial College

Co-supervision of students, Master in Future Energy Systems, Centre for Environmental Policy, Imperial College London, (final thesis work)

Participation to conferences and workshop as speaker (among the others, Conferences ASME, IEEE, CIGR, ICAE)

Participation to scientific dissemination and communication events for NGO and Public Bodies

LANGUAGES

English, Spanish, basic knowledge of Germany

Affiliations, duties in working groups, further qualifications.

Member IET ed IEEE (Power Electricity Society member) since 2001, member ISES Italia since 2001, member AEIT (Associazione elettrotecnica italiana) since 2001, member FIRE since 2012, member AIIA since 2012, Chartered engineer - Ordine Ingegneri Provincia di Bari - since 2000; Delegate of Università di Bari, thematic working group BSEN Threads, coordinated by Prof Briassoulis, project TABE-NET, Trans-Atlantic Biosystems Engineering, definition of teaching topics for the scientific field of biosystems engineering, 2010-13

AWARDS

Vigoni fellowship, British Council-CRUI, for the research project "The future role of bioenergy in urban areas", in partnership with ICEPT, Imperial College London, 2006; Fellowship for attendance to the Master MEDEA in management of energy, financed by Scuola Superiore Enrico Mattei, ENI, June 2000; Marie-curie fellowship for

the attendance of an intensive course on biofuels for urban mobility, June 2006, Lisbon

REVIEWER WORKS

Reviewer of journal ISI/SCOPUS, among others: Renewable and sustainable energy reviews, Biomass and Bioenergy, Energy Conversion and management, Applied Energy, Energy and Fuels, Fuels, Applied thermal engineering, Science of the total environment, Renewable Energy, Solar Energy, Energies (about 50 reviews per year). Reviewer MIUR of research project FIRB on bioenergy (3) in 2013, projects SIR (6) in 2014 and 76 manuscripts on energy engineering for the italian VQR in 2013-14.

IT KNOWLEDGE

Software for electric plant design, yield assessment of PV and wind plants, database (Access), LabView, Markal models for energy planning, software GEMIS and Simapro for LCA, MatLab, optimization tools (AIMMS), software for thermodynamic analyses (GateCycle, Cycle-Tempo)

RESEARCH INSTRUMENTS

Course on use of thermal image camera FLIR, University of bari, june 2013; course on use of LECO instruments for ash melting point, LHV, CHN composition, University of bari, 2013; use of phonometer for noise measurements, 2003; use of artificial aging machine for application in manufacturing sector, 2000; use of galdabini testing machine for mechanical breakage testing on various materials, 2001

DRIVING LICENCE

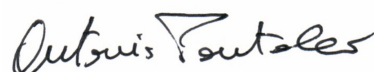
Driving licence A, B, nautical licence

Web sites

: <http://www.imperial.ac.uk/people/a.pantaleo>;
<http://www3.imperial.ac.uk/icept/people>;
https://www.researchgate.net/profile/Antonio_Pantaleo;
<http://scholar.google.it/citations?user=6-pXkjQAAAAJ&hl=it>

FURTHER DETAILS

References: on request
List of papers: attached



List of papers

2000

1.- Pantaleo A., Ruggiero F., Trovato M *Technical and economical feasibility of biomass power plants* Proceedings of “First World Conference on Biomass for Energy and Industry”, Sevilla, 5-9/06/00 pp 903-907, ISBN 1902916158;

2001

2.- Pantaleo A., Pellerano A *Possibilità di valorizzazione energetica di biomasse in Italia: analisi di un impianto a cippato di legna*”, Atti del Congresso Nazionale Associazione Italiana Ingegneria Agraria, Vieste (FG), 11-14/09/01,

3.- Pantaleo A., Pellerano A *Produzione di energia da fonte eolica: caratteristiche ed analisi dei disturbi indotti nelle reti elettriche*”, Atti del Congresso Nazionale Associazione Italiana Ingegneria Agraria, Vieste (FG), 11-14 /09/01;

4.- Pantaleo A., Pellerano A *L'essiccazione delle erbe ornamentali* Atti del Congresso Nazionale Associazione Italiana Ingegneria Agraria, Vieste (FG), 11-14 /09/01;

5.- Pantaleo A, Minoia A, Trovato M *Perspectives and technical Issues of Wind Energy Production in the Italian Electricity market*”, Proceedings of Seminar on Electricity Interconnections Liberalization and Trade, IEEE, Istanbul, 18-20/09/01,

6.- Pantaleo A, Bruno S., La Scala M *Ingegneria della sicurezza delle infrastrutture critiche*”, Atti del Convegno Nazionale “Sicurezza dei sistemi complessi”, Politecnico di Bari, 18-19/10/01

2002

7.- Pantaleo A, Pellerano A, Trovato M *Impact of environmental externalities on the competitiveness of biomass power plants*”, Proceedings of “12th European Conference and Technology Exhibition on Biomass for Energy, Industry and Climate Protection”, Amsterdam, 17-21/06/02, ETA-Florence, pp 1300-1305, ISBN 88-900442-5-X;

8.- Mongelli C, Pantaleo A, Pellerano A *La sicurezza nelle piccole industrie di lavorazione del legno. Analisi del rumore nella produzione di imballaggi in legno* Convegno Nazionale “La sicurezza delle macchine agricole e degli impianti agro-industriali”, Alghero, 11-15/9/2002, AIIA ed ISPESL, pp 367-376,

9.- Pantaleo A, Pellerano A, Ruggiero F, Trovato M *Technical and economical feasibility of off-shore wind farms. An application to Puglia Region*”, Proceedings of “Eurosun 2002, 4th ISES Europe Solar Congress”, 24-26/06/02,)

2003

10.- Pantaleo A, Pellerano A., Trovato M *Integration of wind energy into the power system: the case of Italy*, Proceedings of European Wind Energy Association Conference, 16-19 June 2003, Madrid, Spain

11. Pantaleo A, Pellerano A, Trovato M (2003). *Technical issues for wind energy integration in power systems: projections in Italy*. Wind engineering, vol. 27, p. 473-493, ISSN: 0309-524X

12. Pantaleo A, Pellerano A *End milling of particleboards. Grading systems for machinability assessment*”, Proceedings of XXX CIOSTA CIGR V, Management and technology applications to empower agriculture and agro-food systems, 22-24 September 2003, Turin, Italy

2004

13.- Pantaleo A, Pellerano A (2004). *Wood particle boards machinability assessment through energy consumption tests*. Journal of agricultural engineering, vol. 4, p. 15-22, ISSN: 0304-0593

2005

14.- Pantaleo A, Pellerano A (2005). *Biomass energy surveying and techno-economical assessment of suitable CHP plants: an application to Basilicata Region*. Journal of agricultural engineering, vol. 2, p. 27-36, ISSN: 0304-0593

15.- Pantaleo A, Pellerano A, Ferrini F, Villa G (2005). *Modelling the stability of Phoenix canariensis palms under external loads: an application to a real case*. Advances in horticultural sciences, vol. 19(2), ISSN: 0394-6169

16.- Pantaleo A, Pellerano A (2005). *Load management strategies for eligible customers in electricity markets: an application to a wood casing firm*. Journal of agricultural engineering, vol. 4, p. 83-91, ISSN: 0304-0593

17. – Pantaleo A, Pellerano A *Analisi tecnico-economica nella produzione di pellets* Atti del Convegno Nazionale Associazione Italiana Ingegneria Agraria, Catania, 27-30/06/05, ISBN 88-901860-0-3 pp 12

18. – Pantaleo A, Pellerano A, Pellerano D *Legno lamellare strutturale: aspetti produttivi e normativi* Atti del Convegno Nazionale Associazione Italiana Ingegneria Agraria, Catania, 27-30/06/05, ISBN 88-901860-0-3 pp 12

19.- Pantaleo A, Pellerano A, Ruggiero F, Trovato M (2005). *Feasibility study of off-shore wind farms: an application to Puglia region*. *Solar energy*, vol. 79, p. 321-331, ISSN: 0038-092X

20. – Pantaleo A, Tenerelli P, Pellerano A, Trovato M *A GIS-based approach for assessment of energy crops fired power plants*, Proceedings of 14th European Biomass Conference, Paris, 17-21/10/2005, ISBN 88-89407-07-7 pp 136-140

2006

21. – Pantaleo A, Pellerano A, Pellerano S (2006). *An optical torque transducer for high speed cutting*. *Measurement science and technology*, vol. 17, p. 331-339, ISSN: 0957-0233

22. – A. Pantaleo, A. Pellerano, P. Tenerelli *Impianti di cogenerazione ad olio organico. Aspetti tecnici ed economici*, Atti della giornata di studio “Innovazione delle macchine e degli impianti nel settore agro-alimentare per un’agricoltura multifunzionale nel rispetto dell’ambiente”, Anacapri, 5-6 giugno 2006 ISBN/ISSN: 88-89010-04-5

23. – P. Tenerelli, A. Pantaleo, A. Pellerano, D. Campanile *Valutazione delle potenzialità di colture energetiche in Puglia attraverso analisi multicriterio in ambiente GIS*”, Atti della giornata di studio “Innovazione delle macchine e degli impianti nel settore agro-alimentare per un’agricoltura multifunzionale nel rispetto dell’ambiente”, Anacapri, 5-6 giugno 2006 ISBN/ISSN: 88-89010-04-5.

24. – A. Pantaleo, A. Pellerano, P. Tenerelli *Centrali elettriche a biomasse lignocellulosiche. analisi tecnico-economica nell’attuale scenario energetico*, Atti della giornata di studio “Innovazione delle macchine e degli impianti nel settore agro-alimentare per un’agricoltura multifunzionale nel rispetto dell’ambiente”, Anacapri, 5-6 giugno 2006 ISBN/ISSN: 88-89010-04-5

25. – S. Jablonski, A. Pantaleo C. Panoutsou, A. Bauen *Where Can Bioenergy Heat Applications Be The Most Suitable? A Market Segmentation Analysis Of The UK Heat Market*, Proceedings of Annual British Institute of Energy Economics Conference, Oxford, 20-21 Settembre 2006 pp 4

26. – A. Pantaleo, G. Tiravanti, A. Bauen, A. Howekes *Overview and techno-economic assessment of small scale bioenergy chp plants in the italian and uk energy markets*” Proceedings of Cambridge Symposium on decentralized generation, 28 september 2006, Cambridge, UK pp 35-39

27. – A. Pantaleo, P. Tenerelli, M.T. Carone, A. Pellerano *Produzione di energia dalla filiera oleivicola in Puglia: potenzialità e scenari di valorizzazione energetica*” (), Atti del Workshop Risultati del progetto Cofin Filiere biomassa-energia in Italia”, Ancona 20-21 dicembre 2006 pp 100-119

2007

28. – G. Tiravanti, A. Pantaleo, A. Fanelli, C. Candelise *Investments in energy saving measures in Italy and UK: the impact of national support schemes on the business strategies of an ESCO* Proceedings of ECEEE Summer Study, 4-7/06/2007, Nice, France (peer reviewed paper) ISBN: 978-91-633-0899-4, pp 16

29. – A Pantaleo, G Tiravanti, A Pellerano *Pellets production routes: overview and techno-economic study in Southern Italy*” Proceedings 15th European Biomass Conference and Exhibition from research to market deployment, Berlin 7-11 /05/2007 ISBN 978-88-89407-59-X pp 2420-2427

30. – A. Pantaleo, S. Jablonski, C. Panoutsou, A. Bauen *Assessment of the potential bioenergy demand for electricity and CHP: the case of the UK*” Proceedings 15th European Biomass Conference and Exhibition from research to market deployment, Berlin 7-11 /05/2007 ISBN 978-88-89407-59-X pp 2477-2491

31. – A Pantaleo, G Tiravanti, A Bauen, A Pellerano *Small scale bioenergy CHP technologies in the UK and Italian market*”, Proceedings 15th European Biomass Conference and Exhibition from research to market deployment, Berlin 7-11 /05/2007 ISBN 978-88-89407-59-X pp 2469-2476

32. – P. Tenerelli, A. Pantaleo, M.T. Carone, A. Pellerano, L. Recchia *Spatial, environmental and economic modelling of energy crop routes: liquid vs solid biomass to electricity chains in Puglia region*”, Proceedings 15th European Biomass Conference and Exhibition from research to market deployment, Berlin 7-11 /05/2007 ISBN 978-88-89407-59-X pp 755-763

33. – S. Jablonski, A. Pantaleo, C. Panoutsou, A. Bauen *Assessment of the potential bioenergy demand for heat, and combined heat and power: the case of the UK residential heat sector*” Proceedings of 15th European Biomass Conference and Exhibition from research to market deployment, Berlin 7-11 /05/2007, ISBN 978-88-89407-59-X pp 2379-2393

34. – Pantaleo A, Pellerano A Tenerelli P, Carone MT (2007). *Studio per la valorizzazione energetica di biomasse agroforestali nella regione Puglia*. p. 1-211, ISBN: 9788889010068 Dipartimento PROGESA, Università di Bari

2008

35. – Jablonski S Pantaleo A, Bauen A Pearson P, Panoutsou C, Slade R (2008). *The potential demand for bioenergy in residential heating applications (bio-heat) in the UK based on a market segment analysis*. Biomass and bioenergy, vol. 32, p. 635-653, ISSN: 0961-9534

36. A. Pantaleo, A. Pellerano, M.T. Carone *Potentials and multi-criteria assessment of small scale CHP plants fired by energy crops in Puglia region (Italy)* IProceedings of International Conference on Agricultural Engineering & Industry Exhibition, EurAgEng 2008, Crete, 23-25 June 2008

37. Jablonski S, Strachan N, Brand C, Bauen A and Pantaleo A. *Bioenergy Representation in the UK-MARKAL Model and the Formulation of Bioenergy Scenarios* Proceedings of Sustainable Energy UK - Meeting the Science and Engineering Challenge, Oxford, UK. 13-14 May 2008

38. S. Jablonski, N. Strachan, C. Brand, A. Pantaleo, A. Bauen *A systematic assessment of bioenergy representation in the UK-MARKAL model: insights on the formulation of bioenergy scenarios* Proceedings of 16th European Biomass Conference and Exhibition - Valencia, Spain, 2-6 June 2008, isbn 978-88-89407-58-1, pp 2709-2723

2009

39. Jablonski, S., Brand, C., Pantaleo, A.M., Perry, M., Bauen, A., Panoutsou, C., Strachan, N., (2009) *Selection of Proposed Improvements for UK-MARKAL with regard to Bioenergy Chains* MARKAL Working Paper 2. TSEC-BIOSYS Project and Imperial Centre for Energy Policy and Technology (ICEPT), London,

40. Jablonski, S., Brand, C., Pantaleo, A.M., Perry, M., Pepinster, M., Bauen, A., Panoutsou, C., Varma, B., Premier, G., De Wit, M., (2009) *Proposed dataset for improved UK-MARKAL bioenergy structure* MARKAL Working Paper 2, TSEC-BIOSYS Project and Imperial Centre for Energy Policy and Technology (ICEPT), London

41. Pantaleo A, Carone MT, Pellerano A (2009). *Potentials and feasibility assessment of small scale CHP plants fired by energy crops in Puglia region (Italy)*. Biosystems engineering, p. 344-358, ISSN: 1537-5110 (**allegata**)

42. Pellerano A., Pantaleo A. Luccarelli L. (2009) *Gluing assessment procedures for outdoor laminated wood window frames*, , Proceedings of XXXIII CIOSTA & CIGR Section V Conference. Reggio Calabria, 16-19 June, ISBN 978-88-7583-031-2 pagg 283-2287

43. Pantaleo A, Pellerano A, Carone MT (2009). *Olive residues to energy chains in the Apulia region. Part I. Biomass potentials and costs*. Journal of agricultural engineering, vol. 1, p. 1-11, ISSN: 0256-6524

44. Pantaleo A, Pellerano A, Carone MT (2009). *Olive residues to energy chains in the Apulia region. Part II. Financial appraisal of energy conversion routes*. Journal of agricultural engineering, vol. 1, p. 12-19, ISSN: 0256-6524

45. M.T. Carone, A. Pantaleo, P. Vendola, A. (2009) Pellerano *Effetto dei parametri di processo e delle caratteristiche della biomassa nella compattazione di pellet da residui di potatura di olivo*, ,Atti X Convegno nazionale AIIA, Ischia, 12-16 settembre ISBN 978-88-89972-13-7 paper 7-42 pp 1-9

46. A. Pantaleo, M.T. Carone, A. Pellerano (2009) *Confronto tra scenari di conversione energetica dei sottoprodotti della filiera olivicolo-olearia per la produzione combinata di elettricità, calore, pellet e nocciolino di sansa*, , Atti IX Convegno nazionale AIIA, Ischia, 12-16 settembre, ISBN 978-88-89972-13-7 paper 10-2 pp 1-11

47. J. Keierstead, A. Pantaleo, N. Samsatli, N. Shah (2009) *Evaluating integrated urban biomass strategies for a UK eco-town*”, Proceedings of 17th European biomass conference and exhibition, Hamburg, 29 June-3 July, ISBN 978-88-89407-57-3 pp 2115 - 2127

2010

48. A. E. Azab, A. Pantaleo, D. Roma, A. Pellerano (2010) *Olive cake mechanical dewatering by centrifugation system*, , “SUSTAINABLE ENERGY IN THE NEW AGE: Proceedings of the 4th International Conference on

49. A. Pantaleo, MT Carone, D. Roma, G. De Vanna, A. Pellerano (2010) *Effects of process and biomass parameters on pellet quality*, Proceedings of “the 4th International Conference on Sustainable Energy & Environmental Protection - Part 1” Bari, 29 June-3 July 2 ISBN: 978-88-905185-2-2 pag 1-6

2011

50. M Carone, A Pantaleo, A Pellerano (2011). *Influence of process parameters and biomass characteristics on the durability of pellets from the pruning residues of Olea europea L.* Biomass and bioenergy, vol. 35, ISSN: 0961-9534

51. S. Camporeale, B. Fortunato, A. Pantaleo, D. Sciacovelli (2011) *Biomass utilization in dual combustion gas turbines for distributed power generation in Mediterranean countries*, *Proceedings of ASME Turbo Expo 2011 GT2011-45727 June 6-10, ISBN: 978-0-7918-5462-4, Vancouver, Canada pp 1-10*

52. Pantaleo A, De gennaro B (2011). *Valorizzazione energetica di residui e sottoprodotti della filiera olivicola-olearia in Italia* . Agriregioneuropa, vol. 1, p. 1-6, ISSN: 1828-5880

53. A. Pantaleo, D. Roma, A. Pellerano (2011) *Analisi energetica ed economica nella produzione di biogas e compost da biomasse residuali*, *Convegno AIIA, Belgirate 22-24 settembre, ISBN 978-88-906273-0-9 pp 1-8*

54. Roma D, Pantaleo A. Pellerano A, (2011) *Influence of substrate on bonding joint with structural silicone sealants for wood frames applications*, *Proceedings International Conference on Structural Adhesive Bonding. 7-8 July FEUP Porto (P) ISBN. 978-972-752-135-7 pp 1-28*

55. A Pantaleo, B. De gennaro (2011) *Potentials assessment and financial appraisal of manure / energy crops codigestion for small scale heat and power plants: a case study in southern Italy*, Proceedings of BBEST Conference, 14-18 august, San Paolo, Brasil

2012

56. Pantaleo A, Roma D, Pellerano A (2012). *Influence of wood substrate on bonding joint with structural silicone sealants for wood frames applications* International journal of adhesion and adhesives, vol. 37, p. 121-128, ISSN: 1879-0127, doi: doi:10.1016/j.ijadhadh.2012.01.017

57 J. Keirstead, N. Samsatli, Pantaleo A, N. Shah (2012). *Evaluating biomass energy strategies for a UK eco-town with an MILP optimization model.* Biomass and bioenergy, vol. 39, p. 306-316, ISSN: 0961-9534, doi: doi:10.1016/j.biombioe.2012.01.022

58. A. Pantaleo, N. Shah, A. Pellerano (2012) *Bioenergy for heat and power in urban areas: potential routes, evidences from case studies and perspectives* CIGR-Ageng International Conference of agricultural engineering, Valencia 7-12 July 2012 ISBN-10: 84-615-9928-4 pp 1-8

59. A. Pantaleo, S. Giarola, A. Pellerano, N. Shah (2012) *MILP models for biomass supply chains optimization: applications to district heating in residential areas* CIGR-Ageng International Conference of agricultural engineering, Valencia 7-12 July 2012 ISBN-10: 84-615-9928-4 pp 1-8

60. Pantaleo A, Candelise C (2012). *The ESCO approach for biomass heating in industrial and residential market segments: case studies in Italy*. In: Proceedings of 20th European Biomass Conference and Exhibition. Milano, 18-22/06/2012, ISBN: 9788889407547, doi: 10.5071/20thEUBCE2012-4 B V.3.19 pp 1903-1914

61. Demetres Briassoulis, Eutiquio Gallego, Pantaleo A, Nicholas Holden, Philip Owende, KC Ting, Kumar Mallikarjunan (2012). *The "threads" of Biosystems Engineering*. In: *proceedings of 2012 ASABE Annual International Meeting, 29 july-2 august, Hilton Anatole Dallas, Texas, pp 1-38, Paper number 12*

62. De gennaro B, Pantaleo A (2012). *Valorizzazione energetica di biomasse olivicolo-olearie: il caso della Puglia*. In: *Valorizzazione energetica di residui e sttoprodotti della filiera agroalimentare e forestale: Italia e Argentina* . p. 163-216, Tricase (LE):Libellula Edizioni isbn 9788867350674

2013

63. A. Pantaleo, D. Ferri, D. Roma, A. Pellerano, *Structural silicone sealant modelling for wood frames: influence of sealant application mode on bonding strength*, Journal of Adhesion Science and Technology, 2013, 1-19, DOI:10.1080/01694243.2012.737262
64. Pantaleo A, Shah N (2013):. *The logistics of bioenergy routes for heat and power*. In: *Biofuels: economy, environment and sustainability*, Edited by Zhen fang . Rijeka Intech Isbn 978-953-51-0950-1, pp 217-244
65. Pantaleo A, Shah N, Keirstead J (2013): *Bioenergy and other renewables in urban energy systems: potentials, conversion routes and future trends*. In: *Urban energy systems - an integrated approach*. p. 161-197 Edited by Keirstead J, Shah N, ISBN: 978-0-415-5290-1-3
66. A. Pantaleo, B. De Gennaro, N. Shah: *Assessment of optimal size of anaerobic co-digestion plants: an application to cattle farms in the province of Bari (Italy)*, Renewable and Sustainable Energy reviews, 2013 (20), 57-70
67. A. Pantaleo, S. Camporeale, N. Shah: *Natural gas vs biomass vs dual fuel micro gas turbine for CHP generation in the Italian scenario*, MICROGEN Conference, Naples, 15-17 april 2013
68. S. Giarola, A. Pantaleo, J. Keirstead, N. Shah: *Biomass and natural gas cofiring strategies for optimal integration of bioenergy into urban energy systems*,_Proceedings of European Biomass Conference, Copenhagen 4-7 June 2013 ISBN: 978-88-89407-53-0
69. A. Pantaleo, S. Camporeale, N. Shah (2013) *Operating strategies for natural gas – biomass dual fuelled microturbines in the Italian residential sector*, Proceedings of European Biomass Conference, Copenhagen 4-7 June 2013 ISBN: 978-88-89407-53-0
70. Pantaleo, A. M., Camporeale, S. M., & Shah, N. (2013): *Thermo-economic assessment of externally fired micro-gas turbine fired by natural gas and biomass : Applications in Italy*. Energy Conversion and Management, 75, 202–213.
71. A. pantaleo (2013) perspectives on the role of bioenergy for distributed heat and power generation, PhD Thesis, Centre for Process Systems Engineering, Chemical Engineering Department, Imperial College London, pp 295; <https://spiral.imperial.ac.uk:8443/handle/10044/1/23984>

2014

72. A. Pantaleo, D. Ferri, A. Pellerano (2014) *Wooden window frames with structural sealants: manufacturing improvements and experimental validation of a finite element model*, Journal of Adhesion Science and technology 28(2) pp 115-135
73. Pantaleo A, Candelise C. Bauen A, Shah N (2014): *ESCO business models for biomass heating and CHP: case studies in Italy*, Renewable and Sustainable Energy Reviews, 30, 237-253
74. A. Pantaleo, S. Camporeale, N. Shah (2014)atural gas – biomass dual fuelled microturbines: comparison of operating strategies in the Italian residential sector ,(2014) Applied Thermal Engineering, 71, 686-696 <http://dx.doi.org/10.1016/j.applthermaleng.2013.10.056>
75. A. Pantaleo, A. Ferri D, Pellerano A (2014) Tests for outdoor window profiles: 90° mortise tenon corner joints strength assessment, Wood material science and engineering, Wood Material Science and Engineering, <http://dx.doi.org/10.1080/17480272.2014.939712>
76. A. Pantaleo, A. Pellerano (2013): *Assessment of wood particle boards machinability by means of energy consumption tests*, Wood material science and engineering, 10.1080/17480272.2013.847494
77. Pantaleo A, Giarola S, Bauen A, Shah N (2014) *Integration of biomass into urban energy systems for heat and power. Part I: a MILP based spatial optimization methodology* Energy Conversion and management, 83: 347-361 <http://dx.doi.org/10.1016/j.enconman.2014.03.050>
78. Pantaleo A, Giarola S, Bauen A, Shah N (2014) *Integration of biomass into urban energy systems for heat and power. Part II: methodology application and key factors assessment*, Energy Conversion and management, 83, 362-376; <http://dx.doi.org/10.1016/j.enconman.2014.03.051>
79. Demetres Briassoulis, Eutiquio Gallego, Pantaleo A, Nicholas Holden, Philip Owende, KC Ting, Kumar

Mallikarjunan (2014). *The "threads" of Biosystems Engineering*. Transactions of ASABE. Vol 57(1) 307-330, DOI 10.13031/trans.56.10185

80. Camporeale S, Turi F, Torresi M, Fortunato B, Pantaleo A, Pellerano A (2015) *Part load performances and operating strategies of a natural gas-biomass dual fuelled microturbine for CHP operation*, Proceedings of ASME Turbo Expo 2014: Düsseldorf, Germany, June 16-20, 2014 GT2014- 27109, and Journal for Engineering for Gas Turbines and Power, 137(12) (dec 2015) (13 pages) doi: 10.1115/1.4030499

81. A. Pantaleo, D. Lionetti, Gestione ed utilizzo energetico dei residui della filiera olivicolo-olearia (2014) in *Sistemi colturali olivicoli: meccanizzazione della raccolta e gestione dei residui di potatura* edited by Bellomo F, Aracne Editrice, pagg 123-150

82. Sergio Camporeale, Bernardo Fortunato, Lorenzo Dambrosio, Antonio Marco Pantaleo, (2014) *Novel Micro Turbines for heat and power generation from renewable energy sources and waste energy.; 1st WORKSHOP on the State of the art and Challenges Of Research Efforts @POLIBA, 3-5 december 2014*

2015

83. Pantaleo A, Ciliberti P, Camporeale S, Shah N (2015) *Thermo-economic assessment of small scale biomass CHP: steam turbines vs ORC in different energy demand segments*, Proceedings of 7th International Conference on Applied Energy – ICAE, Abu Dhabi, March 28-31 2015 and Energy Procedia 75(2015) 1609-1617

84. Camporeale S, Ciliberti P, Torresi M, Fortunato B, Pantaleo A (2015), *Externally fired micro gas turbine and ORC bottoming cycle: optimal biomass/natural gas CHP configuration for residential energy demand*, Proceedings of ASME Turbo Expo 2015, Montreal, Canada, June 15-19 2015

85. Domenico Borello, Benedetta De Caprariis, Paolo De Filippis, Andrea Marchegiani, Nilay Shah, Antonio Marco Pantaleo, (2015), *Thermo-Economic Assessment of a olive cake Gasifier for Cogeneration Applications*, Proceedings of 7th International Conference on Applied Energy – ICAE, Abu Dhabi, March 28-31 march 2015 and Energy Procedia, 75(2015) 252-258 - accepted for special issue of Applied Energy

86. Camporeale S, Ciliberti P, Pantaleo A (2015), *Thermo-economic analysis and fluid selection of the bottoming ORC cycle coupled with an externally fired gas turbine*, ASME-ATI-UIT 2015 Conference on Thermal Energy Systems: Production, Storage, Utilization and the Environment 17 – 20 May, 2015, Napoli, Italy and Energy Conversion and Management (accepted)

87. Camporeale S, Ciliberti P, Pantaleo A (2015), *Influence of heat demand on techno-economic performance of a natural gas/biomass fired micro gas turbine with bottoming ORC for cogeneration*, 3rd International Seminar on ORC power systems, ASME, Brussels, 12-14 october 2015,

88. A. Pantaleo, S. Pindozi, S. Faugno, .B. De Gennaro (2015) *Techno-economic assessment of sustainable local biomass supply chains for greenhouses heating: case study in Province of Napoli*, AIIA Mid-Term Conference, 22-24 june, Napoli

89. A. Pantaleo, C. Amorese, S. Camporeale (2015) *Cogeneration in batch, gas-fired coffee roasting with afterburners: investment profitability in the Italian framework*, ATI Conference 9-11 september, Rome and Energy Procedia

90. A. Pantaleo, S. Camporeale (2015) *Comparing steam vs gas turbines with bottoming ORC for small scale biomass cogeneration: techno-economic performances in different energy demand segments*, ATI Conference 9-11 september, Rome and Energy Procedia

91. Bert Annevelink, Hugo de Groot, Nilay Shah, Sara Giarola, Antonio Marco Pantaleo, Perttu Anttila, Martijn Vis, Rik te Raa, Douwe van den Berg, Benoît Gabrielle, David Sanchez Gonzalez, Daniel García Galindo, Eva López Hernandez, Špela Ščap, Nike Krajnc (2015) *S2Biom database with logistical components of the biomass value chain*, 23rd European Biomass Conference and Exhibition, Vienna 1-4 June 2015

In submission to Journals in 2015

92. S. Giarola, A. Pantaleo, J. Keirstead, N. Shah Biomass and natural gas cofiring strategies for optimal integration into urban systems submitted to Energy Conversion and management
93. A. Pantaleo, S. Giarola, N. Shah, Strategic and operational optimization of biomass to heat supply chains: modelling biomass seasonality and cost-quantity dynamics, submitted to Energy Conversion and Management
- 94 A. Pantaleo, B. De Gennaro Optimization of biomass storage, drying and processing: an application to the by-products of the olive oil chain, submitted to Journal of biobased materials and bioenergy
95. A. Pantaleo, N. Shah, F. Ruggiero, *Demand response and on site biomass cogeneration strategies for the tertiary sector: application to an hospital centre in Italy*, submitted to Energies