BARBARA MARCHETTI

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EDUCATION

UNIVERSITY OF PADOVA

PADOVA, Italy

PHD

January 2004

Thesis: Development of a measurement device based on laser Doppler vibrometry for

the characterization of Micro-Electro-mechanical devices

Advisors: Prof. Enrico Primo Tomasini-Università Politecnica delle Marche;

Prof. Joseph Vignola – Naval Research Laboratory (Washington DC)

POLYTECHNIC UNIVERSITY OF MARCHE

Ancona, Italy

Master Degree in Mechanical Engineering
Cum Laude

July 2000

AWARDS AND HONORS

Best Master degree thesis, Rotary club, 2002

Award for successful completion of frescoes diagnostic at the US Capitol, US

Senate- Senator Trent Lott, 2003

Best paper award Oliver Torry Fuller, APT bulletin, 2004

Best innovation idea, Enel Green Power, 2015

Outstanding editorial board member, Petroleum Journal, 2019

TEACHING EXPERIENCE

ECAMPUS UNIVERSITY

Novedrate, Italy

Associate professor, Department:

Environmental energy, 04/2025- Present

Mechanical Plants, 03/2020- Present

Logistic, 03/2020- Present

Quality control 03/2020- 08/2024

CATHOLIC UNIVERSITY OF AMERICA

Washington DC

Instructor, Mechanical engineering department:

Dynamics, Fall/Spring/Summer 2018-2019

Introduction to Environmental Engineering, Fall/Spring/Summer 2018-2019

Dynamics, Summer 2017

MARYLAND UNIVERSITY (MD) **Dynamics, Fall/Spring 2018-2019**

TEACHING INTERESTS

Energy, Environmental energy, Thermodynamics, Heat transfer, Dynamics,

LEADERSHIP AND SERVICE

Coordinator of the Industrial Engineering bachelor's and master's degree programs, 04-2024 to present

Coordinator of the Computer Science Engineering bachelor's and master's degree programs,04/2021-04/2024

Italian government, Presidency of Ministries, Extraordinary office for earthquake reconstruction, consultant for energy systems and applications, 2024 to present

Italian government, Senate of the Republic, consultant for energy systems and applications, 01/2023-12/2023

PROFESSIONAL EXPERIENCE

UNIVERSITY OF ECAMPUS

Associate Professor, Dep of Theoretical and Applied Sciences (DISTA)

Novedrate, Italy 07/2014-Present

Coordinated undergraduate and master's programs in engineering education. Led curriculum planning, quality assurance, and academic strategy alignment as Course Coordinator. Supported 100% accreditation renewal through effective program governance.

Designed and delivered full-time courses in Mechanical Plants, Quality Control, Logistics 4.0. Environmental Energy, Integrated applied research and industry trends to enhance student learning outcomes.

Promoted and secured competitive research funding through public-private partnerships and grant proposals. Advanced university research profile in industrial engineering.

Conducted advanced research on CO₂ pipeline transport technologies, in collaboration with Saipem Spa, focusing on impurity impacts, thermodynamic behavior, and flow properties. Delivered technical insights for stable pipeline operation, including hydrate risk and corrosion potential due to free water formation.

Defined pre-commissioning and commissioning procedures for CO₂ pipelines in collaboration with Saipem Spa. Recommended depressurization configurations under low-temperature conditions and assessed pipeline behavior during depressurization.

Performed ductile fracture propagation and leakage detection system analysis to enhance pipeline safety and integrity in collaboration with Saipem Spa.

Developed decommissioning strategies for offshore oil platforms, supporting sustainable end-of-life asset management in collaboration with ENI Spa.

Led economic and environmental assessments of a SAGD oil recovery facility in collaboration with Saipem Spa. Provided sustainability-focused optimization for Canadian oil sands extraction.

Designed and validated a simulation model for multiphase flow in choke valves, accurately predicting two- and three-phase flow regimes using ENI Spa field data.

Engineered and implemented an experimental two-phase flow loop for component testing and performance optimization (in collaboration with SAIPEM Spa).

Created mathematical models for air drying simulation in pipelines and multiphase vessel blowdown of hydrocarbons, contributing to safe and efficient hydrocarbon system operation (in collaboration with SAIPEM Spa).

Invented and developed an innovative system for the disassembly and recycling of photovoltaic panels, supporting circular economy practices in collaboration with Enel Green Power Spa.

Led feasibility analyses for biomass energy plants, including technical, economic, and environmental evaluations (in collaboration with Municipality of Castelfidardo). Designed a pilot plant to convert biomass from public green maintenance into renewable energy.

Member of the Editorial Board of Energies (MDPI), Current Chinese Science, and permanent Editorial Board Member of the Elsevier journal Petroleum, contributing to the peer-review process and scientific advancement in energy and environmental research.

Served as Scientific Committee Member of the 19th Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES), held in Rome, September 8–12, 2024. Supported the promotion of sustainable development strategies through resource-efficient technologies and knowledge-based policy innovation.

Appointed Scientific Committee Member of the 20th SDEWES Conference, held in Dubrovnik starting September 15, 2024, continuing to support international dialogue on sustainability in energy, water, and environmental systems.

Invited as a Keynote Speaker at WSESA-2025, the World Summit on Environmental Science and Applications, contributing to global discussions on innovation and collaboration to address critical environmental challenges.

Served as a member of the Biomass Panel Steering Committee of the European Technology Platform on Renewable Heating and Cooling (RHC-Platform). Contributed to strategic planning and policy development for the advancement of renewable biomass technologies in the heating and cooling sectors across Europe.

PRESIDENCY OF MINISTRIES, EXTRAORDINARY OFFICE FOR EARTHQUAKE RECONSTRUCTION

Rome, Italy

Consultant, Office of Sisma 2016 recostruction

01/2024 - Present

Provided expert consultancy for the Sisma 2016 Earthquake Reconstruction Project. Delivered regulatory analysis and eco-sustainability assessments to ensure environmental compliance.

Evaluated and proposed high-efficiency energy solutions with minimal environmental impact for post-disaster redevelopment efforts.

Identified renewable energy funding incentives and promoted energy communities to support long-term local energy resilience and sustainability.

CATHOLIC UNIVERSITY OF AMERICA

Visiting Professor, Mechanical Engineering Department

Washington DC, USA 26/06/2017-05/08/2017 01/07/2018-31/07/2019

2017- Supported the organization and served as **member of the technical committee** of the 1st International Workshop "The Challenges of Climate Change," hosted by the Engineering Center for the Care of the Earth (ECCE) at the School of Engineering, The Catholic University of America. Contributed to scientific programming and speaker coordination, supporting international collaboration on climate resilience and sustainable engineering solutions.

2019- Supported the organization and served as **member of the technical committee** of the 2nd International Workshop "Costal Resilience Challenges", hosted by the Engineering Center for the Care of the Earth (ECCE) at the School of Engineering, The Catholic University of America. Contributed to scientific programming and speaker coordination, supporting international collaboration on climate resilience and sustainable engineering solutions.

2019- Served as a **member of the scientific committee** for the *11th International Conference on Climate Change: Impacts and Responses*, held at the Pryzbyla Center, The Catholic University of America, Washington, D.C., April 16–18, 2019. Supported the review and selection of scientific contributions, promoting high-impact research on climate change adaptation and mitigation strategies.

2019-**Principal Investigator** for a project funded by the U.S. government agency Architect of the Capitol (AOC), aimed at assessing the structural integrity and conservation state of the frescoes inside the President's Room of the U.S. Capitol. Coordinated an international research team with partners from university eCampus (Prof. Barbara Marchetti – PI), Università Politecnica delle Marche (Prof. Francesco Corvaro), and The Catholic University of America (Prof. Joseph Vignola, Prof. Diego Turo). Successfully led on-site measurement campaigns using advanced diagnostic techniques to support long-term preservation strategies for historic artworks. Production of complete report and presentation of results to the Architect of the Capitol committee.

NAVAL RESEARCH LABORATORY

Researcher, Experimental Techniques Section

Washington DC, USA 01/06/2002-30/04/2003 01/02/2004-31/03/2004

Conducted research on development and optimization of MEMS microsensors for environmental characterization and art diagnostics. Delivered innovative sensor solutions supporting advanced monitoring applications during tenure at Naval Research Laboratory.

Led the Italian team in the Capitol Pilot Project, a U.S. Senate–funded study on the use of Laser Doppler Vibrometry (LDV) for detecting structural defects in artworks. Coordinated a large-scale diagnostic survey (~700 m²) of frescoes and wall paintings in the U.S. Capitol Building to identify areas at risk of detachment or delamination.

Recognized with an official award from U.S. Senator Trent Lott on behalf of the U.S. Senate for outstanding research contributions during tenure at the Naval Research Laboratory. The related publication

UNIVERSITA' POLITECNICA DELLE MARCHE

Grant holder

Ancona, Italy 01/01/2004-01/01/2010

Served as investigator in multiple European research projects, focusing on innovation in non-destructive testing, quality control, and sustainability in industrial and conservation fields. Led cross-disciplinary research teams and delivered impactful results in applied science and technology.

Led the FP7 project *DRYCHECK* (Grant Agreement No. 262029), developing an electrical impedance-based system to monitor and control the drying process in sausages.

Carried out research activities in EU project *SENSOCER* (GRD1 2001-2004 40008) to develop a non-contact ultrasonic system for real-time density measurement in green ceramic tiles.

Carried out research activities in on the *MONOTONE* project (G1RD-CT-2002-2005 00783), focused on detecting surface texture defects in ceramic tiles using innovative inspection techniques.

Advanced laser-based vibration measurement methods through project *LAVINYA* (G6RT-CT-2002-05093), enhancing the application of laser Doppler vibrometry and full-field techniques.

Carried out research activities in the *CAMALEON* project (I/03/B/F/PP-154145), developing elearning platforms for non-contact measurement techniques and quality control training.

Contributed to sustainable materials research through the *DIPP* project (COLL-CT-2005-012609), which developed particleboard panels with improved mechanical performance and reduced environmental impact.

Carried out research activities in research in the *LASERACT* project (2005–2008), applying multitask laser-based non-destructive technologies in cultural heritage conservation diagnostics.

Conducted research within nationally funded projects supported by the Italian Ministry of University and Research (MIUR), focusing on innovation in logistics, measurement systems, and diagnostic technologies.

Participated in *PRIN* 2008 (Prot. 2008YPMXJ3), contributing to the modeling, simulation, and experimental validation of innovative logistics networks for pharmaceutical management in public healthcare.

Carried out research in *PRIN* 2005 on the development and application of experimental and numerical techniques for the characterization of Micro-Electro-Mechanical Systems (MEMS).

Contributed to *PRIN* 2002, focusing on the use of electro-optical measurement techniques for the diagnostics of structural components.

TECHNICAL SKILLS

Simapro software for LCA analysis, Laser doppler vibrometry measurement and data processing, Particle image velocimetry measurements and data processing, Thermal measurements by thermal camera and data processing, flow-assurance methods and models.

PRESENTATIONS

2024 COP29, side events organized by GSE (Energy Management body of the Italian government) and during the side events organized by RSE (the Research body of the Italian government focusing on energy), Baku, Azerbaijan, November 11-22

2023 COP28, side event organized by RSE (the Research body of the Italian government focusing on energy) at the Italian Pavillon "Albedo for Africa", Dubai, UAE, Novembr 30-December 13

2022 European Biomass Conference and Exhibition, May 9-22, Online

2022 REST- International Conference on Renewable Energies and Smart Technologies, Tirana, Albania, July 28-29

2019 11th International Conference on Climate Change: Impacts and Responses, Washington, D.C., USA; April 16–18

2015 21th ISSAT International Conference on Reliability and Quality in Design, Philadelphia, Pennsylvania, USA, August 6-8

2014 13th International Conference Multiphase flow in Industrial Plants, Sestri Levante (GE), Italy, September 17-19

Summer School Francesco Turco, 11-13-September-2013

2012 18th ISSAT International Conference on Reliability and Quality in Design, Boston (MA), USA, July 26-28

2011 17 th ISSAT International Conference on Reliability and Quality in Design, Vancouver, Canada, August 4-6

2010 WAMS-The International Workshop on Applied Modeling and Simulation, Buzios, Brasil. Buzios, Rio de Janeiro, May 5-7

2006 Intl AIVELA Conference on Vibration Measurements by Laser and Noncontact Techniques

2005 6th International Conference on Vibration Measurement by Laser Technique: Advances and Applications

2004 16 th World Conference on Non Destructive Testing. Montreal

2004 ISMA 2004. Leuven, Spetember, 20 - 22

2002 Intl AIVELA Conference on Vibration Measurements by Laser and Noncontact Techniques

REFERENCES

Mugnini A., Caresana F., Marchetti B., Polonara F., Arteconi A.

Integrated design of heat pump systems: A multi-objective optimized design methodology considering the mutual influence of design and control

(2025) Applied Thermal Engineering, 271, art. no. 126323

DOI: 10.1016/j.applthermaleng.2025.126323

Tortorelli A., Sabina G., Marchetti B.

A Cooperative Multi-Agent Q-Learning Control Framework for Real-Time Energy Management in Energy Communities

(2024) Energies, 17 (20), art. no. 5199

DOI: 10.3390/en17205199

Harizi W., Vitali M., Corvaro F., Marchetti B., Chrigui M.

Experimental and numerical study of mixed convection heat transfer in a vented cavity partially filled with a porous medium: Effects of reynolds and rayleigh numbers on Nusselt number and flow regimes

(2024) Numerical Heat Transfer; Part A: Applications

DOI: 10.1080/10407782.2024.2326200

Marchetti B., Vitali M., Biancini G.

Renewable Energy Proliferation and the New Local Energy Community Paradigm: Analysis of a Case Study in Italy

(2024) Energies, 17 (7), art. no. 1599

DOI: 10.3390/en17071599

Corvaro F., Marchetti B., Vitali M.

Validation of Velocity Field Measured with Particle Image Velocimetry of a Partially Heated Cavity

(2023) Heat Transfer Engineering, 44 (2), pp. 141 - 153

DOI: 10.1080/01457632.2022.2034084

Biancini G., Moradi R., Cioccolanti L., Marchetti B., Moglie M., Del Zotto L.

A general model for air gasification of heterogenous municipal solid waste

(2023) Energy Conversion and Management, 278, art. no. 116749

DOI: 10.1016/j.enconman.2023.116749

Vitali M., Biancini G., Marchetti B., Corvaro F.

On the Sublimation of Dry-Ice: Experimental Investigation and Thermal Modelling of Low-Temperatures on a Sandy Soil

(2023) Energies, 16 (2), art. no. 987

DOI: 10.3390/en16020987

Vitali M., Leporini M., Masi O., Speranza A., Corvaro F., Marchetti B.

Net zero Flow Assurance - Validation of various equations of state for the prediction of VLE and density of CO2-rich mixtures for CCUS applications

(2023) International Journal of Greenhouse Gas Control, 125, art. no. 103877

DOI: 10.1016/j.ijggc.2023.103877

Vitali M., Zuliani C., Corvaro F., Marchetti B., Tallone F.

Statistical analysis of incidents on onshore CO2 pipelines based on PHMSA database

(2022) Journal of Loss Prevention in the Process Industries, 77, art. no. 104799

DOI: 10.1016/j.jlp.2022.104799

Vitali M., Corvaro F., Marchetti B., Terenzi A.

Thermodynamic challenges for CO2 pipelines design: A critical review on the effects of impurities, water content, and low temperature (2022) International Journal of Greenhouse Gas Control, 114, art. no. 103605

DOI: 10.1016/j.ijggc.2022.103605

Williams J., Corvaro F., Vignola J., Turo D., Marchetti B., Vitali M.

Application of non-invasive active infrared thermography for delamination detection in fresco

(2022) International Journal of Thermal Sciences, 171, art. no. 107185

DOI: 10.1016/j.ijthermalsci.2021.107185

Biancini G., Cioccolanti L., Marchetti B., Moglie M.

EVALUATION OF MUNICIPAL LANDFILL LEACHATE TREATMENT BY MICROALGAE

(2022) European Biomass Conference and Exhibition Proceedings, pp. 79 - 85

Biancini G., Moglie M., Marchetti B., Cioccolanti L.

Life Cycle Impact Assessment of Municipal Solid Waste Management Systems: Improved design for environmental footprint minimization 2022 International Conference on Renewable Energies and Smart Technologies, REST 2022

DOI: 10.1109/REST54687.2022.10022921

Vignola A., Corvaro F., Vignola J., Turo D., Marchetti B., Vitali M. Application of a non-invasive measurement technique to detect anomalies in frescoes at the US Capitol (2022) Journal of Physics: Conference Series, 2204 (1), art. no. 012053

DOI: 10.1088/1742-6596/2204/1/012053

Biancini G., Marchetti B., Cioccolanti L., Moglie M.

Comprehensive Life Cycle Assessment Analysis of an Italian Composting Facility concerning Environmental Footprint Minimization and Renewable Energy Integration

(2022) Sustainability (Switzerland), 14 (22), art. no. 14961 DOI: 10.3390/su142214961

Vitali M., Biancini G., Marchetti B., Corvaro F.

Experimental and numerical analysis of the convective flow induced over a dry-ice bank with Particle Image Velocimetry (2022) Journal of Physics: Conference Series, 2385 (1), art. no. 012056

DOI: 10.1088/1742-6596/2385/1/012056

Vitali M., Zuliani C., Corvaro F., Marchetti B., Terenzi A., Tallone F.

Risks and safety of co2 transport via pipeline: A review of risk analysis and modeling approaches for accidental releases

(2021) Energies, 14 (15), art. no. 4601

DOI: 10.3390/en14154601

Leporini M., Terenzi A., Marchetti B.

Improvement of a multiphase flow model for wellhead chokes under critical and subcritical conditions using field data

(2021) Journal of Petroleum Exploration and Production Technology, 11 (3), pp. 1487 - 1503

DOI: 10.1007/s13202-021-01114-4

Afshari F., Sahin B., Marchetti B., Polonara F., Corvaro F., Leporini M., Afshari F.

Numerical study on drag coefficient and evaluation of the flow patterns in perforated particles

(2021) Heat Transfer Research, 52 (14), pp. 47 - 61

DOI: 10.1615/HEATTRANSRES.2021038829

Marchetti B., Leporini M., Corvaro F., Olivieri A., Ighani M., Chiarucci M.

Application of infrared thermography to determine the correlation between skin temperature and onset of graft versus host disease in patients after bone marrow transplantation: A preliminary study

(2020) International Journal of Thermal Sciences, 156, art. no. 106350

DOI: 10.1016/j.ijthermalsci.2020.106350

Leporini M., Marchetti B., Corvaro F., Polonara F.

Reconversion of offshore oil and gas platforms into renewable energy sites production: Assessment of different scenarios

(2019) Renewable Energy, 135, pp. 1121 - 1132

DOI: 10.1016/j.renene.2018.12.073

Leporini M., Marchetti B., Corvaro F., di Giovine G., Polonara F., Terenzi A.

Sand transport in multiphase flow mixtures in a horizontal pipeline: An experimental investigation

(2019) Petroleum, 5 (2), pp. 161 - 170 DOI: 10.1016/j.petlm.2018.04.004

Leporini M., Terenzi A., Marchetti B., Giacchetta G., Corvaro F.

Experiences in numerical simulation of wax deposition in oil and multiphase pipelines: Theory versus reality

(2019) Journal of Petroleum Science and Engineering, 174, pp. 997 - 1008

DOI: 10.1016/j.petrol.2018.11.087

Terenzi A., Marchetti B., Leporini M., Poesio P., Liu J.

Experimental and Numerical Study of Multiphase Flow Phenomena and Models in Oil & Gas Industry

(2019) Petroleum, 5 (2), pp. 113

DOI: 10.1016/j.petlm.2019.04.004

Giacchetta G., Marchetti B., Leporini M., Terenzi A., Dall'Acqua D., Capece L., Cocci Grifoni R.

Pipeline wax deposition modeling: A sensitivity study on two commercial software

(2019) Petroleum, 5 (2), pp. 206 - 213 DOI: 10.1016/j.petlm.2017.12.007

Cunningham A., Vignola A., Turo D., Corvaro F., Ryan T.J., Vignola J.F., Marchetti B.

Structural vibration analysis of Fresco cohesion

(2019) Journal of the Acoustical Society of America, 146 (4)

Leporini M., Terenzi A., Marchetti B., Corvaro F., Polonara F.

On the numerical simulation of sand transport in liquid and multiphase pipelines

(2019) Journal of Petroleum Science and Engineering, 175, pp. 519 - 535

DOI: 10.1016/j.petrol.2018.12.057

Marchetti B., Corvaro F., Polonara F., Leporini M.

Development of an innovative and sustainable model for integrating river maintenance with energy production from residual biomass

(2018) Resources, 7 (2), art. no. 27

DOI: 10.3390/resources7020027

Afshari F., Zavaragh H.G., Sahin B., Grifoni R.C., Corvaro F., Marchetti B., Polonara F.

On numerical methods; optimization of CFD solution to evaluate fluid flow around a sample object at low Re numbers

(2018) Mathematics and Computers in Simulation, 152, pp. 51 - 68

DOI: 10.1016/j.matcom.2018.04.004

Marchetti B., Corvaro F., Giacchetta G., Polonara F., Cocci Grifoni R., Leporini M.

Double Green Process: a low environmental impact method for recycling of CdTe, a-Si and CIS/CIGS thin-film photovoltaic modules

(2018) International Journal of Sustainable Engineering, 11 (3), pp. 173 - 185

DOI: 10.1080/19397038.2018.1424963

Leporini M., Corvaro F., Marchetti B., Polonara F., Benucci M.

Experimental and numerical investigation of natural convection in tilted square cavity filled with air

(2018) Experimental Thermal and Fluid Science, 99, pp. 572 - 583

DOI: 10.1016/j.expthermflusci.2018.08.023

Leporini M., D'Alessandro V., Mancini E., Terenzi A., Marchetti B., Giacchetta G., Grifoni R.C.

A new integrated approach to study the thermal and mechanical response of vessels subject to a safe blowdown process

(2018) Journal of Loss Prevention in the Process Industries, 53, pp. 103 - 114

DOI: 10.1016/j.jlp.2017.06.003

Corvaro F., Giacchetta G., Marchetti B., Recanati M.

Reliability, Availability, Maintainability (RAM) study, on reciprocating compressors API 618

(2017) Petroleum, 3 (2), pp. 266 - 272

DOI: 10.1016/j.petlm.2016.09.002

Dall'Acqua D., Terenzi A., Leporini M., D'Alessandro V., Giacchetta G., Marchetti B.

A new tool for modelling the decompression behaviour of CO2 with impurities using the Peng-Robinson equation of state

(2017) Applied Energy, 206, pp. 1432 - 1445

DOI: 10.1016/j.apenergy.2017.09.118

Dall'Acqua D., Benucci M., Corvaro F., Leporini M., Cocci Grifoni R., Del Monaco A., Di Lullo A., Passucci C., Marchetti B.

Experimental results of pipeline dewatering through surfactant injection

(2017) Journal of Petroleum Science and Engineering, 159, pp. 542 - 552

DOI: 10.1016/j.petrol.2017.08.068

Leporini M., Terenzi A., Marchetti B., Giacchetta G., Polonara F., Corvaro F., Grifoni R.C.

Modelling the pressurization induced by solar radiation on above ground installations of LPG pipeline systems

(2017) Journal of Physics: Conference Series, 923 (1), art. no. 012023

DOI: 10.1088/1742-6596/923/1/012023

Corvaro F., Benucci M., Marchetti B., Grifoni R.C., Polonara F.

The role of an electrically heated front cover on the thermal performance of a radiator

(2017) International Journal of Fluid Mechanics Research, 44 (5), pp. 409 - 425

DOI: 10.1615/interjfluidmechres.2017018766

Brandoni C., Marchetti B., Ciriachi G., Polonara F., Leporini M.

The impact of renewable energy systems on local sustainability

(2016) International Journal of Productivity and Quality Management, 18 (2-3), pp. 385 - 402

DOI: 10.1504/IJPQM.2016.076716

Bevilacqua M., Ciarapica F.E., Giacchetta G., Paciarotti C., Marchetti B.

Innovative Maintenance Management Methods in Oil Refineries

(2016) Springer Series in Reliability Engineering, pp. 197 - 226

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Giacchetta G., Leporini M., Marchetti B.

Evaluation of the economic impact of a new high value process for the management of the end of life of thin film photovoltaic modules

(2015) International Journal of Productivity and Quality Management, 15 (4), pp. 528 - 541

DOI: 10.1504/IJPQM.2015.069712

Giacchetta G., Leporini M., Marchetti B.

Economic and environmental analysis of a Steam Assisted Gravity Drainage (SAGD) facility for oil recovery from Canadian oil sands

(2015) Applied Energy, 142, pp. 1 - 9

DOI: 10.1016/j.apenergy.2014.12.057

D'Alessandro V., Giacchetta G., Leporini M., Marchetti B., Terenzi A.

Modelling blowdown of pressure vessels containing two-phase hydrocarbons mixtures with the partial phase equilibrium approach

(2015) Chemical Engineering Science, 126, pp. 719 - 729

DOI: 10.1016/j.ces.2015.01.019

Carducci F., Del Monaco A., Giacchetta G., Leporini M., Marchetti B.

Development and application of an innovative tool to automate the process of results extraction from the thermo-hydraulic simulator Olga

(2015) Petroleum, 1 (2), pp. 164 - 168

DOI: 10.1016/j.petlm.2015.06.003

Giacchetta G., Corvaro F., Nardini G., Benucci M., Dall'Acqua D., Marchetti B.

Development and implementation of an experimental test bench for foam characterization in oil & gas applications (2015) Proceedings - 21st ISSAT International Conference on Reliability and Quality in Design, pp. 189 - 193

Savino M.M., Mazza A., Marchetti B.

Lean manufacturing within critical healthcare supply chain: An exploratory study through value chain simulation (2015) International Journal of Procurement Management, 8 (1-2), pp. 3 - 24

DOI: 10.1504/IJPM.2015.066285

Giacchetta G., Leporini M., Marchetti B.

Technical and economic analysis of different cogeneration systems for energy production from biomass

(2014) International Journal of Productivity and Quality Management, 13 (3), pp. 289 - 309

DOI: 10.1504/IJPQM.2014.060419

Ciatteo V., Giacchetta G., Marchetti B.

Dynamic model for the economical evaluation of different technical solutions for reducing naval emissions

(2014) International Journal of Productivity and Quality Management, 14 (3), pp. 314 - 335

DOI: 10.1504/IJPQM.2014.064808

Giacchetta G., Leporini M., Marchetti B., Terenzi A.

Numerical study of choked two-phase flow of hydrocarbons fluids through orifices (2014) Journal of Loss Prevention in the Process Industries, 27 (1), pp. 13 - 20

DOI: 10.1016/j.jlp.2013.10.014

Giacchetta G., Leporini M., Marchetti B.

Economic and environmental optimization of a new high value process for the management of the end of life of thin film photovoltaic modules (2014) Proceedings of the Summer School Francesco Turco, 09-12-September-2014, pp. 100 - 107

Bevilacqua M., Ciarapica F.E., Giacchetta G., Marchetti B.

An empirical study of ISO 9000 on the supply chain of a company leader in the heating sector (2013) International Journal of Quality and Reliability Management, 30 (8), pp. 897 - 916

DOI: 10.1108/IJQRM-Feb-2012-0024

Giacchetta G., Marchetti B.

Medical waste management: a case study in a small size hospital of central Italy

(2013) Strategic Outsourcing: An International Journal, 6 (1), pp. 65 - 84

DOI: 10.1108/17538291311316072

Giacchetta G., Marchetti B.

Innovative experimental-numerical method for quality control during sausages production (2013) International Journal of Productivity and Quality Management, 12 (4), pp. 379 - 392

DOI: 10.1504/IJPQM.2013.056733

Crivellini A., Giacchetta G., Marchetti B., Marchetti C., Paciarotti C., Terenzi A.

Development and validation of a model for the simulation of the air drying phenomena in pipelines

(2013) International Journal of Mathematical Modelling and Numerical Optimisation, 4 (4), pp. 351 - 373

DOI: 10.1504/IJMMNO.2013.059203

Giacchetta G., Leporini M., Marchetti B.

Evaluation of the environmental benefits of new high value process for the management of the end of life of thin film photovoltaic modules (2013) Journal of Cleaner Production, 51, pp. 214 - 224

DOI: 10.1016/j.jclepro.2013.01.022

Giacchetta G., Marchetti B.

Supplier Satisfaction Survey as a management tool for reengineering the procurement process

(2013) International Journal of Procurement Management, 6 (2), pp. 170 - 186

DOI: 10.1504/IJPM.2013.052468

Giacchetta G., Leporini M., Marchetti B., Terenzi A.

Numerical study of choked two-phase flow of hydrocarbons fluids through orifices

(2013) Proceedings of the Summer School Francesco Turco, 11-13-September-2013, pp. 86 - 94

Brandoni C., Polonara F., Ciriachi G., Marchetti B.

Employment impact of renewable energy generation on sustainable communities

(2013) Proceedings of the Summer School Francesco Turco, 11-13-September-2013, pp. 346 - 351

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