FACULDADE DE CIÊNCIAS E TECNOLOGIA
UNIVERSIDADE NOVA DE LISBOA

CURRICULUM VITÆ

ROSA MARIA MENDES MIRANDA

Lisboa, 2014

INDEX

I. PERSONNAL DETAILS

Name

Rosa Maria Mendes Miranda

Date and Place of Birth

31st July 1958, Lisbon

Personnal address

Rua Marquês da Fronteira, 72, 6º Esq.

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II. ACADEMIC DEGREES

- Diploma of Metalurgical Engineering, Instituto Superior Técnico (IST), 1976-1981
- PhD in Mining Engineering, Instituto Superior Técnico, February 1996
- Habilitation in Mechanical Engineering, Industrial Technology, Mechanical and Industrial Engineering Department, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, March 2009

III. PROFESSIONAL QUALIFICATIONS

- Metallurgical Engineer, 1983 - Ordem dos Engenheiros, 1983, Senior Member since 1997.
- European Welding Engineer, EWE nº PT 0000 - European Welding Federation (EWF)
- International Welding Engineer, IIWE nº PT 00001, International Institute of Welding (IIW)

IV. CURRENT POSITION

Associate Professor with Habilitation in Mechanical and Industrial Engineering Department, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, since March 2009.
Researcher at UNIDEMI - R&D Unit in Mechanical and Industrial Engineering, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, since 2010.

V. PREVIOUS POSITIONS

- ✓ Research Assistant, Metallurgical Engineering, Instituto Superior Técnico, 1979-81
- ✓ Engineer, Portuguese Welding and Quality Institute, ISQ, 1981-1983
- ✓ Assistant Professor, Metallurgical Engineering, Instituto Superior Técnico, 1984-89
- ✓ Head of High Power Beams Laboratory, ISQ, 1989-1991
- ✓ PhD student with a scholarship from the Portuguese Science and Technology Foundation, 1991-1994
- ✓ Assessor of R&D Department at ISQ,1995-1999
- ✓ Invited Professor at Mechanical Engineering Department, Coimbra University, 1998-2000
- ✓ Auxilliairy Professor, Open University, 2000-2006
- ✓ Associate Professor, Mechanical and Industrial Engineering Department, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, since July 2006.
- ✓ Researcher at IDMEC, Instituto Superior Técnico, 2003-2009
- ✓ Researcher at UNIDEMI, R&D Unit in Mechanical and Industrial Engineering, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, since 2010.

VI. AWARDS

- "**Alfredo Bensaúde**" **Award**, Instituto Superior Técnico, June 1987, for the best teacher in Metallurgical Eng. Department in the academic year of 1986/1987.

- Award granted by Vigo University and the Spanish Association for Welding and Joining for the **Best work on the application of laser to joining technologies** presented in EUROJOIN6 conference "Fiber laser bead-on-plate welds in titanium, aluminium and X100 steel", co-autthored by L. Quintino, A. Costa and D. Yapp.

VII. MISSIONS

1980 – Stage at Sorefame, in NDT in welded construction
1987 – Stage at CALFETMAT, Institut Nacional des Sciences Appliquées Lyon (France), with a scholarship from the French Government in Laser and surface hardening by laser

2006 – Mission to Cranfield University, UK to promote bilateral agreements in welding technology

2007 – Mission to Universidad Politécnica de Madrid (UPM) to establish a bilateral agreement for research and ERASMUS post graduation students and staff training interchange

2010 – Teaching Mission to UPM in Laser Technology Master Course under the framework of ERASMUS program. Teaching of a 24h module on "High Power Laser Applications"

2010 – Research mission to Cranfield University, UK

2010 - Research mission to UPM

VIII. SUMMARY OF PROFESSIONAL ACTIVITY

1982-1983 – After finishing the Welding Engineering Post Graduation Course at the Portuguese Welding and Quality Institute (ISQ) started working at ISQ in Materials and Metallurgy Group of R&D Department. This group had the Mission to support inspection and maintenance activities of ISQ. As the first (and only) welding engineer and metallurgist, acquired a large experience on in-service behaviour of industrial plants. Main tasks were:

- study and write technical and expert reports on accidents in industrial equipments or components with diverse origins such as: design defects, in-service or startup malfunctions, mechanical degradation of materials during service conditions, corrosion, etc. At this function worked for several national companies as: National Siderurgy, CIRES, EDP, Petrogal E.P., SAPEC, Automotive Electromechanics Society (Sociedade Electromecânica de Automóveis Lda) and international as: National Engineering Laboratory in Angola and Vinçotte Association in Belgium, amongst others.
- selection, analysis and testing of materials for metalworking, petrochemical and automotive industries.
- preparation of welding procedure specifications, welding qualification tests as well as welders qualification tests.

1984-1989 – Upon invitation of the Metallurgical Engineering Department at Instituto Superior Técnico (IST) applies for a position of Assistant Lecturer and continues with industrial activity, as well as, with a research activity in welding metallurgy and processes, mainly in submerged arc welding with shipyards Setenave, Setúbal.

In 1987 starts a new area of research emerging in Portugal which was laser welding and surface treatments. With a scholarship from the French Government stays in a research mission with Calfetmat (France).

1989 – After an invitation of the R&D Direction of ISQ rejoins this organization with the main task to set up a High Power Energy Beams Laboratory devoted to materials processing. This research center was equipped with a 2.5 kW CO_2 laser, a 900 W Nd/YAG laser, an excimer laser, 2 electron beam equipments of 7.5 and 15 kW and a high pressure abrasive water jet machine of 400 MPa.
This was the first laboratory of this type in Portugal, as well as in Europe, due to its wide range of complementary facilities covering: cutting and drilling, welding and surface modification including hardening and cladding.
The group participated in several projects funded by EU on R&D, technology transfer and training.

1989-1991 – During this period was Responsible for the Laboratory, with scientific, technical and financial management tasks.
In this period participated in:
- research projects: 7 BRITE-EURAM, 1 ECSC and 2 STRIDES (funded by portuguese goverment in collaboration with CERN), either as project coordinator or coordinator of ISQ team.
- technology transfer in the area of laser, water jet and electron beam. In the aim of EU projects, coordinated 4 SPRINT projects and 1 CRAFT project and coordinated also the ISQ team in 2 more CRAFT projects.
- in dissemination and training activities for a wide range of technological sectors that have now well established technologies, specially laser and water jet technologies, as in automotive, mould making industry, textiles, shoe manufacturing, metalworking, ornamental stones transformation, wood transformation, cork, machine tool manufacturing, etc. Several companies emerged due to this activity as: CEI a SME manufacturer of water jet manipulator systems, Lasindustria, a laser Job shop spin off of ISQ, Lasermadeira, a joint venture of ISQ, INESC and the Portuguese Wood Association.
- training of specialists in laser technology, through a COMETT project.
From this period a close relationship with industry was established both national and internationally. As an example, visited the following companies outside Portugal organised by industrial sector:
- automotive - AUDI research center in Germany;
- aeronautics and aerospatial - British Aerospace in UK, Aérospaciale and SNECMA in France;
- system manufacturers - British Hydromechanics Research group in UK, Messer Griesheim, Lambda Physik, Rofin Sinar and Flow Systems in Germany, Siacky Industries, Cheval Frères, Quantel and ESAB in France, Ingersoll Rand in Spain;

- job shops - Exitech Ltd and Laser Expertise in UK, Aquarese Industries in Belgium

In Portugal visited a large number of companies from metaloworking, textiles, shoe automotive, mould making industries, amongst other.

As a representative of ISQ was the leader of a job shop foundation for laser cutting wood components for the furniture industry with the participation of INESC and the Associação Nacional das Industrias de Madeira e Mobiliário (ANIM). The company – Lasermadeira had its headquarters in Porto.

Partner of Lasindustria, a laser job shop with capital from ISQ, IAPMEI and individual partners. At present, several companies exist n Portugal within this sector.

From 1991 to 1994 with a scholarship from Junta Nacional de Investigação Científica e Tecnológica (JNICT) did a PhD thesis and obtained her academic degree in February 1996. The experimental work was conducted in industrial environment at ISQ following her participation in several BRITE-EURAM projects with ornamental stone sectors in laser and water jet technology. The thesis was co-supervised by Prof. Thomas Kim, Dean of Rhode Island University (USA) and international expert in water jet technology.

1994 to 1999 – Assessor for R&D Department of ISQ with the mission of assisting other areas to launch R&D projects and to increase the technology transfer activity through feasibility studies of implementing advanced manufacturing technologies mainly those involving welding, laser and water jet in industrial sectors as:

- automotive (Veneporte, TAVOL Lta., Manuel Conceição da Graça Lta., HUF Lda., etc.);
- naval (Estaleiros Navais de Viana do Castelo, Estaleiros Navais do Mondego);
- aeronautics (OGMA - Oficinas Gerais de Material Aeronáutico);
- metalworking;
- ornamental stone producers (several companies in the Anticlinal of Borba-Estremoz - Vila Viçosa, as well as, in Nisa, Vila Real, Porto);
- equipment manufacturers (Minorça, CEI, ADIRA).

Participated in a Concerted Action on Water Jet Technology with 27 partners from different countries.

Started a new area of research in laser cleaning of art Works funded by the Gulbenkian Foundation in Portugal and later by a CRAFT Project.

Together with the *Direcção Geral da Indústria* participated in activities aiming at disseminating the potential of EU funded programmes within industry, helping companies to participate in these programmes.

In the training area was responsible for the Authorised National Body (ANB) of ISQ aiming to train welding engineers, but also other professionals as Welding Specialist and Welders in Portugal, China and Mexico, recognised by the European Welding Federation (EWF) and the International Institute of Welding (IIW).

1998–2000 – Invited Auxiliary Professor in the Mechanical Engineer Department of Coimbra University.

In 2000 left ISQ and applied for a position of Auxiliary Professor at the Open University in Sciences Education Department where, besides regular lecturing activities, was Assessor of the Rector for professional training.
Participates in the proposal for funding a research center at the Open University funded by FCT-MCTES on distance education and was responsible for the research area on long life learning, participating in 3 Grundtvig and an ALFA Project.

2003-2009 - Member of IDMEC a research unit funded by FCTMCTES on Mechanical Engineering at IST. Integrates the Center for Advanced Productive Technologies, specifically the Welding Engineering Group.

Since 2006 – Associate Professor at Mechanical Engineering Department of Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa, lecturing in Industrial technology and since 2010 integrates UNIDEMI.

IX. R&D ACTIVITIES

R&D PROJECTS

Project Coordinator

- Project CERN/JNICT STRDC/C/CA/10/90 – Precision machining by laser, 1990 - 1991
- Project CERN/JNICT STRDC/C/CA/11/90 – Nitriding assisted by laser of Nb surfaces, 1990 – 1991
- CRAFT 1048 - Abrasive waterjet cutting of ornamental stones, EU (DG XII), 1994 - 1995.
- "Excimer laser cleaning of papers and parchements impregnated with mud" Calouste Gulbenkian Foundation, 1995 - 1996.
- "Excimer laser cleaning of pigments in papers and parchments with spectrocolorimetric analysis post ablative processing" Calouste Gulbenkian Foundation, 1996 - 1998.
- POCI/EME/56076/2004 "Advanced Technologies for joining hardmetals", FCT-MCTES, 2005-2008
- PTDC/EME-TME/100990/2008, "Joining micro to small scale systems in shape memory alloys using last generation infrared lasers", FCT-MCTES, 2010-2012
- PTDC/EME-TME/103543/2008, "Technology developments of Friction stir processing to produce functionally graded materials and improve surfaces for advanced engineering applications - FRISURF ", FCT-MCTES, 2010-2012

Coordinator of ISQ team

- BRITE 2486 - Recognition and Processing of Indigenous Industrial Materials by Laser, EU (DG XII), 1989 – 1992

Coordinator: Empresa de Investigação e Desenvolvimento - Portugal

- BRITE 3489 – Analysis of beam workpiece interaction to electron beam welding for industrial applications, EU, (DG XII), 1990 – 1993

Coordinator: Aachen University – Germany

-BRITE 3612 - Excimer Laser Processing of Flexible Materials, EU (DG XII), 1990-1993

Coordinator: Monlycke - Greece

- BRITE 4382 - Precision Machining using Abrasive Jets, EU, (DG XII), 1990-1993

Coordinator: British Hidromechanics Research Group – UK

- BRITE 5062 - Laser Surface Treatment of Marbles, EU, (DG XII), 1991-1994

Coordinator: National Technical University of Athens - Greece

- BRITE 5558 – YAG Analysis of beam/workpiece interaction applied to electron beam welding for industrial application, EU, (DG XII), 1990-1993

Coordinator: COMEX - France

- BRITE 1671- Downhole abrasive jet cutting operations in quarrying, minning and civil engineering, EU, (DG XII), 1996 - 1999.

Coordinator: British Hydromechanics Research Group – UK

- BRITE 5129- Development and performance evaluation of a fast X-radioscopic and lock-in thermographic NDE system for fibre based technical composites, EU, (DG XII), 1998 - 2001.

Coordinator RISO National Laboratory – Denmark

- Concerted Action - Quality improvement of Water Jet Cutting; Comunidade Económica Europeia, (DG XII), 1993 - 1996

Coordinator: Institut for Werstofkunde – Germany

- CECA - Laser welding of sub-assemblies before forming, EU (DG XII), 1996-1999.

Coordinator: Technical University of Denmark – Denmark

- CRAFT 1145 – Productivity improvements of industrial laser cutting, EU,, (DG XII), 1994 – 1996

Coordinator: Technical University of Denmark – Denmark

- CRAFT 5052 – Production Technologies and network for complex forms sheet metal components based upon tailored blanks, EU, (DG XII), 1997 - 1999

Coordinator: Manuel da Graça, Lta – Portugal

- CRAFT CREART Advanced workstations for controlled laser cleaning of artworks, EU, (DG XII), 1999 - 2001.

Coordinator: Art Innovation – Neetherlands

Researcher

- CRAFT EFRIC Environmental friendly industrial ceramics, EU, (DG XII), 2000 - 2002.

Coordinator: POCERAM – Portugal.

- EUROPEAN COOPERATION PROJECT GRUNDTVIG I – Tutoring Adults Online- @duline – Contract Ref.101102-CP-1-2002-1-F1-GRUNDTVIG-G1.

Coordinator: Turku Universidade – Finland

- EUROPEAN COOPERATION PROJECT GRUNDTVIG I – Introducing Appropriate Methodologies For Lifelong Learning - I AM L3 – Contract Ref: 100258–CP–1–2002-1BE-GRUNDTVIG– G1.

Coordinator: RAGO – Belgium

- EUROPEAN COOPERATION PROJECT GRUNDTVIG I –ELLPROFT – European Lifelong Professional Training – Contract Ref N° 100724-CP-1-2002-1FR-GRUNDTVIG-G1.

Coordinator: Mulhose University – France

- EUROPEAN COOPERATION PROJECT ALFA AML/B7-311/97/0666/II-0074-FA – Extension and optimisation of the pyrometallurgical processes and routes aiming at stainless steel production in Latin America (Aceros inoxidables in America Latina) – AlxAL. Coordinator: Aachen University - Germany

- CRAFT 32657-SIMTWB-FP6-2004-SME-COOP – Accurate simulation of tailor-welded-blanks to reduce process design time for sheet pressing industry, EU, (DG XII), 2006-2008
Coordinator: MAGNA-COSMA - Poland

- ECONWELD - Economically welding in a healthy way", EC Collective Research project, 2005-2008
Coordinator: EWF - Belgium

- PT/04/B/F/PP-159043, "TRAINING LAB - New Approaches and Systems for Lifelong Learning". European Comparative Study", LEONARDO da VINCI, 2004-2006
Coordinator: EWF - Belgium

- Nanobrasing of advanced materials, FCTMCTES, 2007-2010
Coordinator: FEUP

- High performant pressure vessels - INNOVGAS, QREN nº 5572/2009
Coordinator: Omnidea – Portugal

- Low cost energy systems – BOREAS, QREN nº 5631/2009
Coordinator: Omnidea – Portugal

PROJECT EVALUATION PANNELS

1996 - Standards, Measurements and Testing, EU, (DG XII), Brussels
1996 to1998 - PRAXIS XXI, Lisbon
1997 - BRITE – EURAM, EU, (DG XII), Brussels
1998 – CRAFT, EU, (DG XII), Brussels
1999, 2000 – GROWTH, EU, (DG XII), Brussels
2003, 2005 - Leonardo da Vinci – Mobility, Lisbon
2003 - Marie Curie, EU (remote evaluation via PESS)
2004 - GROWTH- Cooperative Research" EU, (DG XII), Brussels
2004 - DEMTEC Program, AdI, Lisbon
2005 to 2007 - IDEIA, Program, AdI, Lisbon
2008 – Sistema de Incentivos de I&DT da Agência de Inovação, Lisboa
Since 2008 – Coordinator of Evaluation pannels for proposals submitted to IAPMEI, QREN Programs, Lisbon.

X. SUPERVISION OF PhD THESIS

PhD Thesis

- Carlos Nogueira "Adult Education in Europe", 2004-2010, Open University

- Liliana Silva, "NDT, *Phased array* and *Time of Flight Diffraction* (ToFD) for pipelines, since 2007, FCT-UNL

- Joao Gandra, "Investigation and development of solid-state processes to produce metal matrix composites and functionally graded materials", since 2011, IST-UTL.

- Diogo Pereira, MPW of Al/Ti, since 2013, FCT-UNL

XI. MEMBER OF SCIENTIFIC AND PROFESSIONAL ASSOCIATIONS

- Sociedade Portuguesa de Materiais, since 1983.
- International Society of Water Jet Technology, since 1992.
- American Water Jet Society, since 1993.
- American Society for Metals, since 2005.
- American Welding Society, since 2007.
- Associação Portuguesa de Mulheres Cientistas, AMONET, since 2007.
- Instituto Português de Engenharia Industrial, IPEI, since 2008.

XII. MEMBER OF TECHNICAL AND SCIENTIFIC COMMISSIONS

1982 – 1986 - TC - Steels CT 12/SC 1, Instituto Português da Qualidade

1990 – 1996 - CTE 76 do Instituto Electrotécnico Português,

Since 1996 – National Delegate to International Institute of Welding - Com IV – Power Beams

1992 – 2000 - Advisory Board of the International Society of Water Jet Technology

1992 – 2000 - Individual Director of the International Society of Water Jet Technology

Since 1996 – Expert Group of Evaluators, Brussels, for the following Programes: BRITE-EURAM; STANDARDS AND TESTING; CRAFT e GROWTH

Since 1996 – Member of evaluator group of Agência de Inovação, Lisbon

Since 2002 - Member of evaluator group of Leonardo da Vinci and Marie Curie Programs, Brussels

2003 – 2008 - Member of consulting group of GRICES - MCTES

Since 2011 – National Delegate to Commissions IV – Power Beams and XVII - Microwelding of IIW – International Welding Institute

XIII. MEMBER OF INTERNATIONAL CONFERENCES SCIENTIFIC COMMITTEE

- 8th American Water Jet Conference, Houston, USA, 1995.
- 9th American Water Jet Conference, Dearborn, USA, 1997.
- 1st International Conference - Materials 2001, Coimbra, Portugal, 2001.
- 2nd International Conference - Materials 2003, Monte da Caparica, Portugal, 2003.
- IV International Materials Symposium Materials 2007 and XII Encontro da Sociedade Portuguesa de Materiais, Porto, 2007
- International Conference "Welding Processes Modelling", Galati, Romania, 2007.
- 36th International Conference on Metallurgical Coatings and Thin Films USA, 2008, ed. Elsevier
- "V International Materials Symposium Materiais 2009, Lisboa, Portugal, 2009
- 6th Portuguese-Mozambique Conference of Engineering, Maputo, Mozambique, 2011
- 15th International Conference on Experimental Mechanics (*ICEM15*), Porto-Portugal, 2012.

XIV. MEMBER OF CONFERENCES ORGANIZING COMMITTEE

- 1st International Conference on Education and Innovation: changing educational paradigms, Calouste Gulbenkian Foundation, 2006.
- Coordinator of the Symposium on Advanced Production Technologies, 5th Congresso Luso-Moçambicano de Engenharia, CLME08, Maputo, 2008.
- Jornadas de Inovação em Tecnologias de Produção, Instituto Superior Técnico, 2008.
- Coordinator of the Symposium on NDT: developments and industrial apllications, 6th Congresso Luso-Moçambicano de Engenharia, CLME11, Maputo, 2011
- Coordinator of the Symposium on Innovative and Emerging Production Technologies, IRF'2009, 3rd International Conference on Integrity, Reliability and Failure, Porto, Portugal, 2009.

XV. EDITORIAL BOARD OF INTERNATIONAL JOURNALS

- The Annals of Dunarea de Jos University of Galati - Welding Equipment and Technology, since 2008.
- Soldagem & Inspecção, since 2011

XVI. REVIEWER OF PAPERS FOR SCIENTIFIC JOURNALS AND INTERNATIONAL CONFERENCES

Scientific Journals indexed in the Web of Knowledge:

Mechanics of Advanced Materials and Structures, since 2006

International Journal of Microstructure and Materials Properties, since 2007

International Journal of Advanced Manufacturing Technology, since 2008

Energy Policy, since 2008

Journal of Engineering Manufacture, since 2009

Materials and Manufacturing Processes, since 2009

Optics and Laser Technology, since 2009

Journal of Materials Processing Technology, since 2010

Engineering ed. Scientific Research Publishing, since 2010

Soldagem e Inspecção, since 2011

XVII. PUBLICATIONS

Thesis

R. M. MIRANDA, "A contribution to the phenomenological study of laser and water jet processing of ornamental stones", dissertation for Doctoral Academic Degree in Mining Eng, IST, Lisboa, 1996.

Text Books (LT)

LT 1 - J. F. OLIVEIRA SANTOS, L. QUINTINO e R. M. MIRANDA, "Processamento de Materiais por Feixes de Elevada densidade de Energia: Feixe de Electrões, Laser e Jacto de Água", ed. ISQ, Lisboa, 1991, ISBN: 972-9228-11-6 (280 pages).

LT 2 - R. M. MIRANDA, "Tratamentos superficiais por feixes de elevada densidade de energia: laser e feixe de electrões", ed. ISQ. Lisboa, 1991, ISBN: 972-9228-29-9 (20 pages).

LT 3 - E. M. DIAS LOPES e R. M. MIRANDA, "Metalurgia da Soldadura", ed. ISQ, Lisboa, 1993, ISBN: 972-9228-16-17 (298 pages).

LT 4 - J. F. OLIVEIRA SANTOS, L. QUINTINO e R. M. MIRANDA, "Corte por Laser", ed. ISQ, Lisboa, 1993, ISBN: 972-9228-38-8 (169 pages).

LT 5 – JOÃO PAULO DUARTE, PAULO PEÇAS, ROSA MARIA MIRANDA, "A Técnica do LASER", *in* Do Bisturi ao LASER, Ed. Fundação Calouste Gulbenkian, 1995, 96-99

LT 6 – A Participação Portuguesa no Programa BRITE-EURAM III, Projectos de I&DT, ed. Direcção Geral da Industria, Lisboa, Julho 2000, as expert and co-aothored with Eng. Utímia Madaleno, Professor João Carlos Bordado and Professor João Gomes, ISBN: 972-586-065-9 (243 pages).

LT 7 – R. M. MIRANDA "Aplicações da Qualidade na Indústria", ed. Universidade Aberta, Lisboa, 2002, ISBN: 972-674-381-8 (298 pages).

LT 8 – Koen DePryck, Rosa Miranda. Alda Pereira, António Teixeira, Rikke Schultz, Pia Melchior Petersen, Lone Guldbrandt, Pam Roccio, Rachel Savage, Hana Danihelková, Kertu Lóhmus, Sven von Elst, "Getting started in Open and Distance Learning" ed. Garant, Antuwerp-Apeldoorn, 2005, ISBN: 90-441-1898-6.

LT 9 – Koen DePryck, Rosa Miranda. Alda Pereira, António Teixeira, Rikke Schultz, Pia Melchior Petersen, Lone Guldbrandt, Pam Roccio, Rachel Savage, Hana Danihelková, Kertu Lóhmus, Sven von Elst, "Iniciação ao ensino a distância" ed. Garant, Antuwerp-Apeldoorn, 2005, ISBN: 90-783-9806-X.

LT 10 – R. M. Miranda, L. Quintino, "Laser Welding of Aluminium Alloys", in Aluminum Alloys: Preparation, Properties and Applications", ed. Nova Publishers, NY, in print

LT 11 - R. M. Miranda, F. M. Braz Fernandes, C. M. Craciunescu, L. Quintino, L. Alberty Vieira, "Shape memory alloys: existing and emerging applications", (2011) In: Advances in Materials Science Research. Volume 6, Chapter 7, Editor: Maryann C. Wythers, ed. Nova Science Publishers, Inc., ISBN: 978-1-61209-116-7

LT 12 - L. Quintino, R. Miranda, U. Dilthey, D.Iordachescu, "Laser Welding of Structural Aluminium", Welding Technology, Elsevier, in print

LT 13 - R. Miranda, "Comprehensive Hard Materials", Chapter 121. Applications – Joining, Elsevier, in print

Editor of Chapters in Text Books (ECL)

ECL 1 – "Tecnologias de Produção Avançadas", Capítulo XIV, Miranda, R. M., J., António, C., Afonso, C., Matos, A., Eds., Proceedings of the 5th Congresso Luso-Moçambicano de Engenharia/2nd Congresso de Engenharia de Moçambique, 835-852, Maputo, 2008, ISBN 978-972-8826-19-2

ECL 2 – "INNOVATIVE AND EMERGING PRODUCTION TECHNOLOGIES". Capítulo XXI, Rosa M. Miranda, J. F. Silva Gomes, Shaker A. Meguid, Proceedings da IRF'2009, 3rd International Conference on Integrity, Reliability and FailurePorto, Portugal, 20-24 July 2009, ISBN 978-972-8826-22-2

Papers in International Scientific Journals in WoS (RI)

RI 1 - M. A. FORTES, R. M. MIRANDA, "Alternative boundary conditions for a drop hanging from a circular tube", J. Chem. Soc. Faraday Trans., 1, 1983, 81-92.

RI 2 - R. M. MIRANDA, M. A. FORTES, "Austenite grain growth, microstructure and hardness in the heat affected zone of a 2.25 Cr-1 Mo steel", Materials Science and Engineering, A108, 1989, 1-8.

DOI: 10.1016/0921-5093(89)90399-7

http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TXD-48CXT7T-2&_user=2975255&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000057395&_version=1&_urlVersion=0&_userid=2975255&md5=5101ea00fe1aded60661d77c2f303a92

RI 3 – P. PEÇAS, M. HENRIQUE, R. M. MIRANDA, L. QUINTINO, "Laser welding of low thickness zinc coated and uncoated carbon steel sheets", Optical and Quantum Electronics, 27, 1995, 1193-1201

DOI: 10.1007/BF00326475

http://www.springerlink.com/content/x66572637u836335/?p=6ef829db162849868d633027e16a341b&pi=7

RI 4 - OLIVÉRIO D. D. SOARES, R. M. MIRANDA, JOSÉ L. C. COSTA "Spectrocolorimetric control of ancient documents post-ablation by excimer laser", J. of Applied Optics, 38, (20), 1999, 6307–6316.

http://www.opticsinfobase.org/abstract.cfm?URI=ao-38-30-6307

RI 5 - R. M. MIRANDA, L. QUINTINO "CO_2 laser cutting of calcareous stones", Materials and Manufacturing Processes, 19, (6), 2004, 1133-1143.

DOI: 10.1081/AMP-200035267

http://www.informaworld.com/smpp/section?content=a714011598&fulltext=713240928

RI 6 - R. M. MIRANDA "Structural analysis of the heat affected zone of marble and limestone tiles cut by CO_2 laser" Materials Characterization, 53, (5), 2004, 411-417.

DOI: 10.1016/j.matchar.2004.09.011

RI 7 – I. PIRES, L. QUINTINO, R. M. MIRANDA, "Performance of 2024-T3 aluminium adhesive bonded joints", Materials and Manufacturing Processes, 20, (2), 2005, 175-185.

DOI: 10.1081/AMP-200041848

http://www.informaworld.com/smpp/section?content=a713731199&fulltext=713240928

RI 8 - R. M. MIRANDA, L. QUINTINO "Microstructural study of material removal mechanisms observed in abrasive water jet cutting of calcareous stones", Materials Characterization, 54, (4-5), 2005, 370-377.

DOI: 10.1016/j.matchar.2004.12.008

RI 9 – C. G. ASCENÇO, J. P. GOMES, N. M. COSME, R. M. MIRANDA "Analysis of welding fume: a short notice on the comparison between two sampling techniques", Toxicological and Environmental Chemistry, 87, (3), 2005, 345-349.

DOI: 10.1080/02772240500273465

RI 10 - I. PIRES, L. QUINTINO, R. M. MIRANDA, "Numerical simulation of mono- and bi-adhesive aluminium lap joints", Journal of Adhesion Science and Technology, 20, (1), 2006, 19-36.
DOI: 10.1163/156856106775212387

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CO 2 - R. M. MIRANDA and J.P. DUARTE, "Aplicações da tecnologia laser ao restauro de obras de arte", - "Encontros de Conservação e Restauro da Fundação Calouste Gulbenkian", Lisboa, December 1995.
CO 3 - "Formação Profissional a Distância", 1ª Encontro da Qualificação Empresarial, NERLEI, Leiria, September 2000.
CO 4 – "Formação a distância" Seminário da Fundação da Ttnet Portugal, Costa da Caparica, Portugal, May 2001.
CO 5 - "Continuous Education at Universidade Aberta", BEST Conference on LLL, IST, Lisboa, March 2002.
CO 6 - "Desenvolvimento da Educação Contínua nas Universidades", 1as Jornadas da FEUP no século XXI, Porto, October 2002.
CO 7 - "Identification of educator´s needs in distance education", E-learning tools and methodologies, Universidade Charles, Praga, May 2004.
CO 8 – "Tecnologias de corte com haces de alta densidad (chorros de agua y láser) de rocas naturales", Ciclo de Conferências sobre Automatización e Ingeniería, CCAI´0607, Universidade de Vigo, Ouctober 2006.
CO 9 - Láseres de fibra de alta potencia para el processado de materiales: soldeo y prototipado rápido", IV Jornada de Procesado de Materiales con LÁSER, AIMEN, Espanha, November 2007.
CO 10 – "Tecnologia laser em corte e soldadura", Jornadas de Inovação em Tecnologias de Produção, Instituto Superior Técnico, October 2008.

CO 11 – "Processamento de materiais por laser – exemplos de Inovação", Jornadas de Inovação em Tecnologias de Produção, Instituto Superior Técnico, October 2008.

CO 12 – "High power laser applications", International Seminar on Advanced Manufacturing Technologies", UPM Laser Center, June 2009.

CO 13 – "Joining small scale systems in shape memory alloys with lasers", International Workshop on Microjoining by nanostructured materials, FEUP, April 2010.

CO 14 – "Laser welding of shape memory alloys", R. M. Miranda, L. Quintino, I IIW European-South American School of Welding and Correlated Processes, Belo Horizonte, Brasil, Maio 2011

CO 15 - Overview of recent developments in laser welding, MS&T, Columbus, EUA, Outubro de 2011

CO 16 – Laser welding of NiTi in similar and dissimilar joints, - Membro do International Advisory Board da International Workshop on Advanced Materials Joining and Processing (IWAMJP); Universidade de Waterloo, Canadá, 21 de Outubro de 2011.

CO 17 – "Laser welding and friction stir based technologies", École Centrale de Nantes, França, Maio 2012

CO 18 - Pedro Vilaça, Telmo Santos, Luis Rosado, Moisés Piedade, Pedro Ramos, Jorge dos Santos, Luísa Quintino, Rosa Miranda, "FSW Defects Types and New NDT System for the Detection of Micro Imperfections". Invited lecture by Institut de Soudure for the "Journée Technique – Friction Stir Welding" organised by "Le service membres industriels". Villepinte (Paris Nord), France, September 2012

CO 19 - João Gandra, Telmo G. Santos, Rosa Miranda, Revestimentos superficiais por Friction Stir Processing and Surfacing, II JAIFSW 2014, Coimbra, Portugal, 30 Outubro 2014.