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MARQUIS
INTERNATIONAL
SYMPOSIUM
on New and Advanced
Materials and Technologies

CURRICULUM VITAE

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1 Education

B. S Chem. Eng., University of Coimbra (UC), Portugal, 1967
Dipl. Eng. Chemical/Industrial Eng., Instituto Superior Tecnico (IST), Portugal, 1970
Dipl. ICSTM Metallurgical Eng., Imperial College of Science, Technology and Medicine (ICSTM),
University of London, 1973
Ph.D. Metallurgical Eng., Imperial College of Science, Technology and Medicine,
University of London, 1977
Ph.D. Metallurgy and Materials Science, University of Lisbon (UL), 1977 Chartered Eng. Council
of Engineering Institutions (CEI), United Kingdom (1979)

2. Professional & Academic Experience

2014- Present Adjunct Professor, Department of Mechanical Engineering, San Diego State University (SDSU)
2009- 2014 Research Professor, Department of Systems Engineering and Wayne Meyer Institute of Systems Engineering (WMISE), Naval Postgraduate School (NPS)
2006-2009 Visiting Professor, Dept. of Mechanical and Astronautical Engineering, Naval Postgraduate School
1988-2006 Professor of Materials and Metallurgical Engineering, South Dakota School of Mines and Technology (SDSMT)
1993-1994 Visiting Professor, Dept. of Applied Mechanics and Engineering Science, University of California, San Diego (UCSD)
1983-1988 Tenured Associate Professor of Materials and Metallurgical Engineering, SDSMT
1980-1980 Visiting Professor, Titanium Metals Corporation of America (TIMET), Nevada
1980-1983 Tenure Track Associate Professor of Metallurgical Engineering, SDSMT
1979-1980 Visiting Professor and Associate Scientist, Department of Mechanical & Aerospace Engineering, University of Delaware (UD)
1979-1980 Professor Associado and Head, Metallurgy and Materials Science Division, Faculty of Engineering, University of Minho (UM), Portugal
1977-1979 Professor Auxiliar and Head, Metallurgy and Materials Science Division, University of Minho, Portugal

- 1977-1979 Director of the Metallurgical Science Laboratory, (Physical Metallurgy and Foundry), University of Minho (UM), Portugal
- 1977-1979 Vice-President, Center for Research on the Science and Technology of Materials (CCTM), University of Minho, Portugal
- 1977- 1979 Vice-President, Engineering Council, University of Minho, Portugal
- 1971- 1977 Academic Visitor, Metallurgy and Materials Science Department, Imperial College of Science and Technology, University of London, England
- 1970-1971 Corrosion Group of the Portuguese National Institute for Industrial Research
- 1970-1977 Lecturer, Instituto Superior Tecnico (IST), University of Lisbon, Portugal
- 1970-1970 Research Assistant, Kjemisk Institutt, University of Oslo, Blindern, Norway
- 1969-1969 Research Assistant, Metallurgy Dept., Atomic Energy Establishment, Riso, Denmark
- 1966-1967 Assistant Lecturer for General Chemistry, University of Coimbra, Portugal
- 1965-1966 Assistant Lecturer for Inorganic Chemistry, University of Coimbra, Portugal

3. Current Research Interests & Experience

1. Transformative Materials, Energy Systems, Renewable and Alternative Energy, Sustainable Development.
2. Nanomaterials (Nanocomposites, Nanosensors, Nanofluids, Nanolubricants),
3. Nanotechnology, Nanosystems, Nanotribology.
4. Nanoenergetics, Shock Synthesis, Combustion Synthesis and Densification of Ceramics, Composites and Intermetallics.
5. Microstructural Design and Manufacture of Materials and Material Systems. 6. Thermal Management Systems for High Energy Applications and DEWs
7. Development of Multiphase Materials and Materials Systems.
8. Analytical Electron Microscopy and Forensics.
9. High-Strain, High-Strain Rate Deformation Behavior of Ta and Ta-W Based Alloys.
10. Failure Analysis and Mechanisms in Structural Components. 11. Solid State Ionics, Solid State Energy Devices and Systems
12. Airplane and Aerospace Materials and Structures.

4. Awards and Special Recognition

Best Student University of Coimbra, 1967 and Special Prize to attend Youth Science Science Fortnight, London England 1967, Fellow of the Royal Microscopical Society, United Kingdom, 1977; Editorial Advisory Board, Portugaliae Physica, 1978-1986; Chartered Engineer, Council of Engineering Institutions, 1979, UK; Professional Chemical Engineer, Portugal, 1979; Professional Metallurgical Engineer, Portugal, 1979; Member of the Board of Governors of the International Congress on Mechanical Behavior of Materials, 1979-1981; Who's Who in Engineering; Biography International; Outstanding Award for Service, as Organizer of the International Symposium on "In Situ Reactions for Synthesis of Composites, Ceramics and Intermetallics", TMS, 1995; Special Recognition from Entrepreneurs of America, 1998; Governor of South Dakota Faculty Award for Teaching with Technology, 1999; Outstanding Award for Service, as Primary Organizer of the International Symposium on "Powder Materials: Current Research and Industrial Practices", TMS, 1999; Materials Design and Manufacturing Division of TMS, for Exemplary Service to the Division as Chairman of the Powder Materials Committee, 2001; Outstanding Award for Service as Primary Organizer of the International Symposium on "Powder Materials: Current Research and Industrial Practices II", TMS, 2001;

Outstanding Award for Service as Primary Organizer of the International Symposium on “Rapid Prototyping of Materials”, TMS, 2002; Outstanding Award for Service, as the Organizer of the International Symposium on Powder Materials: Current Research and Industrial Practices III”, TMS, 2003; Exemplary Service as Treasurer of the TMS “Materials Processing and Manufacturing Division” (2004); Programming Representative for the “Materials Processing and Manufacturing Division”, TMS/ASM 2004-2006; Research Director “United Nanotechnologies”, 2005-2006; Outstanding Award for Service, as Organizer of the Symposium on “Science and Technology of Powder Materials: Synthesis, Consolidation and Properties”, Materials Science and Technology, 2005; Fellow American Society for Metals, 2006; Award as Programming Representative, Materials Processing and Manufacturing Division, TMS 2007, Board of Trustees Alpha Sigma Mu, 2006-2014.

5. Professional Registrations

Metallurgical Engineering (1979), Chemical Engineering (1979), Chartered Engineer, Council of Engineering Institutions, United Kingdom (1979), Member Euro Mediterranean Academy of Arts and Science.