

Scientific outputs

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CEMMPRE

**Centre for Mechanical Engineering,
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Books and Chapters

International Book

1. A. Khalfallah. Comprendre les principes fondamentaux de la résistance des matériaux. Edilivre, 2024. ISBN: 9782414638161
2. H. Ju, & Jing Luan. Optimizing 3D printed CuNiSn alloy for offshore use. Scholar´s Press, 2024. ISBN: 978-620-6-77286-6

International Book Chapters

1. D. O’Sullivan, G. Fernandes, Managing the Benefits of Collaborative Projects¹. In Mastering Project Leadership (pp. 63–74). Auerbach Publications, 2024. <https://doi.org/10.1201/9781003502654-8>
2. H. Vidinha, R. Branco, M. Neto, A. Amaro, P. Reis, Finite element analysis of seawater effect on mechanical strength of polymer composites. In Finite Element Analysis of Polymers and Composites (pp. 285–322), 2024. Elsevier. <https://doi.org/10.1016/B978-0-443-14087-7.00014-8>
3. J. S. S. Júnior, J. Mendes, F. Souza, C. Premebida, Explainable Deep Fuzzy Systems Applied to Sulfur Recovery Unit (pp. 27–54), 2024. https://doi.org/10.1007/978-3-031-66842-5_2
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2. G. H. S. F. L. Carvalho, R. M. Leal, I. Galvão (Eds.), Advanced Manufacturing Processes. applied sciences, MDPI, 2024. ISBN 978-3-7258-2076-4.

3. R. Beygi, M. Moradi, A. Khalfallah (Eds.), Welding and Joining of Metallic Materials: Microstructure and Mechanical Properties. MDPI, 2024. ISBN: 978-3-7258-2495-3.
4. Z. Benzarti, A. Khalfallah (Eds.), Recent Advances in the Development of Thin Films. MDPI, 2024. ISBN:978-3-7258-1855-6

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2. A. B. E. Aichouni, C. Silva, L. Ferreira, A Systematic Literature Review of the Integration of Total Quality Management and Industry 4.0: Enhancing Sustainability Performance Through Dynamic Capabilities. SUSTAINABILITY, 16(20), 2024. <https://doi.org/10.3390/su16209108>
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Papers in National Journals

1. A. R. Malta, M. Mendes, J.T. Farinha, Realidade Aumentada na Engenharia Médica. Revista Tecnohospital, N° 121, January/February, p. 14-18.
2. B. P. Mateus, M. Mendes, J.T. Farinha, J.E. Pais, Previsão de Falhas de Transformador De Potência Utilizando Técnicas de Aprendizagem Computacional. Revista Manutenção N° 163. 4º Trimestre De 2024. Ano 42. p. 38-40.
3. C. Afonso, H. Raposo, J. Raposo, T. Farinha, Análise de Ciclo de Vida de Imagiologia Baseado em Indicadores de Desempenho. Revista Tecnohospital, N° 125, September/October, p. 28-34.
4. D. Gatões, P. Rodrigues, B. Alves, G. Oliveira, L. Cacho, D. Neto, T. Vieira, O fabrico aditivo por extensão (MEX) e os materiais metálicos. Ciência & Tecnologia dos materiais, Revista da Sociedade Portuguesa de Materiais, vol. 36, nº. 1, 2024.
5. F. Ferreira, J.T. Farinha, M. Mendes, Análise de Falhas em Rede de Distribuição de Água – 3ª Parte. Revista Manutenção N° 162. 3º Trimestre de 2024. Ano 42. p. 4-7.
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7. J. T. Farinha, M. Mendes, Inteligência Artificial na Engenharia Hospitalar: Uma Revolução ao Cuidado do Paciente. Revista Tecnohospital, N° 121, January/February, p. 10-12.

Editorial Board (Journal)

1. 4D Printing (new)
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37. Membranes
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40. Modelling and Simulation in Engineering
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48. Processes
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51. Sensors
52. Smart Materials and Structures (Focus on 4D Materials Design and Additive Manufacturing 2024–25)
53. The Scientific Journal World- Condensed Matter Physics

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Conferences

Attendance to International Conference with Presentation

1. A. Bento, C Cruz, L. M. Ferreira, G. Fernandes, Exploring social network analysis and relationship quality in the context of the two-wheel supply chain sector, 31th Euroma Conference, Barcelona, 29 June - 3 July, 2024.
2. A. Bento, C Cruz, L. M. Ferreira, G. Fernandes, Network Structure, Relationships, and the Role of Logistics Service Providers: Insights from the Two-Wheel Sector in Portugal, Hamburg International Conference of Logistics, Hamburg, September 25-27, 2024
3. A. Brett, Bioelectrochemistry: a Green Tool for Sensing Health-Relevant Biological Interactions, 10th IUPAC International Conference on Green Chemistry (10th ICGC), 18-22 October 2024, Beijing, China.
4. A. Brett, Electrochemical Sensing of Proteins and Biomolecules, International Conference on Electrochemistry for Industry, Health and Environment (EIHE 2024), 8-10 February 2024, Vellore, India.
5. A. Brett, Electroquímica e AFM dos peptídeos β amilóide da doença de Alzheimer, XXVI Congresso de Sociedade Ibero-americana de Electroquímica (SIBAE 2024), 19 a 23 May 2024, Lisbon.
6. A. Brett, Prémio Katsumi Niki - Bioelectrochemical Sensing of Health-Relevant Biological Interactions, 75th International Society of Electrochemistry Annual Meeting (ISE), 18-23 August 2024, Montreal, Canada.
7. A. Cavaleiro, Materials interaction in sliding contact determining the tribological performance of sputtered coatings, 6th International Conference on Tribocorrosion, New Dehli, India, 10-11 December 2024
8. A. Cavaleiro, Self adaption as a tribological mechanism for low friction with sputtered coatings, ADVAMAP2024, Lisbon, 10-12 June 2024
9. A. Cavaleiro, Sputtering, a bottom-up nanotechnology for tailoring nanomaterials. 2nd INDO-EUROPEAN SYMPOSIUM On Surface Engineering, Ranchi, India, 11-12 December 2024.
10. A. Cavaleiro, The synergy between carbon-based TMD-sputtered coatings and laser surface treatment for low friction and wear resistance, PSE2024, Erfurt, Germany, 2-5 September 2024

11. A. Fernandes, V. Magalhães, L. Ferreira, Linking Circular Economy Practices to Sustainable Development Goals: A Multi-Criteria Decision-Making Approach, ICEE 2024, Guimarães, 6-7 June 2024
12. A. Fróis, C.S. Louro, A.C. Santos, CO-6-a-C:H(:N) coatings for orthodontic applications: corrosion resistance and in vitro biocompatibility. CIMAGO 2024, CIMAGO Congress - Environment, Genetics and Oncobiology in the 21st Century - Challenges and Opportunities. MEDICINE (Baltimore), April 05, 2024.
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3. A. Jesus, A. Correia, C. Marques, M. Vieira, C. Silva, S. Moniz, Toward efficient scheduling with AI: Exploring Deep Q-Learning for the flexible job-shop problem, IO'2024, 23^o Congresso da APDIO, 2024.

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5. A. Varela, P. Nicolau, A. Cristina, A. Valente, S. Fangaia, Revista Portuguesa de Estomatologia, Medicina Dentária e Cirurgia Maxilo-Facial, Proceedings do XLIV Congresso Anual da Sociedade Portuguesa de Estomatologia e Medicina Dentária, 2024
6. B. Marques, D. M. Neto, M. C. Oliveira, L. F. Menezes, J. L. Alves, Comparing different remapping algorithms for adaptive mesh refinement applied to meso-scale analysis of additive manufacturing processes, Congress on Numerical Methods in Engineering, 4-6 September, University of Aveiro, Portugal
7. B. S. Curralo, D. M. Neto, M. C. Oliveira, J. L. Alves, L. F. Menezes, Using non-conforming meshes in the numerical simulation of sheet metal forming processes, Congress on Numerical Methods in Engineering, 4-6 September, University of Aveiro, Portugal
8. C. Bessa, T. Pinto-Varela, A. Barbosa-Póvoa, C. Silva, S. Moniz, Understanding the dynamics of fairness in wholesale-retail price coordination, IO’2024, 23º Congresso da APDIO, 2024.
9. C. M. R. Abreu, T. C. Rezende, W. Loh, A. C. Serra, J. F. J. Coelho, Poly(vinyl chloride) based block copolymer nanoparticles via polymerization induced self-assembly, 3rd Edition NanoSeries Conference on Global Nanotechnology (#NanoSeries2024), Lisbon, Portugal, 17-19 June 2024
10. C. M. R. Abreu, T. C. Rezende, W. Loh, A. C. Serra, J. F. J. Coelho, Poly(vinyl chloride) based innovative materials by advanced polymerization and self-assembly methods, X Iberian Meeting on Colloids and Interfaces (RICIX), Coimbra, Portugal, 23-26 June 2024
11. C. M. R. Abreu, T. C. Rezende, W. Loh, A. C. Serra, J. F. J. Coelho, Polymerization induced self-assembly of poly(vinyl chloride) based block copolymer nanoparticles, X Iberian Meeting on Colloids and Interfaces (RICIX), Coimbra, Portugal, 23-26 June 2024
12. C. M. A. Brett, Nanomaterial and redox polymer-modified electrochemical sensor and biosensor platforms, Analítica 2024, 11th Meeting of the Analytical Division of Sociedade Portuguesa de Química, Porto, Portugal, 25-26 March 2024
13. F. Fernandes, Novel CrAlN coatings for dry machining operations: high temperature tribological behaviour, machining performance and FE simulations, 2nd international conference on mechanics of solids, 30-31 October 2024, Porto, Portugal
14. F. V. Antunes, D. M. Neto, E. R. Sérgio, P. Prates, J. Vasco-Olmo, F. Diaz, G. Gonzáles, Fatigue crack growth: a close look to crack tip phenomena using the CTOD, Portuguese Conference on Fracture (PCF2024), February 2024, Setúbal, Portugal

- 15.G. Santos, S. Devesa, D. Cavaleiro, P. Santos, A. Cavaleiro, S. Carvalho, Deposição de Revestimentos à Base de Níquel: Caracterização Estrutural, Morfológica e Funcional. 1ª Conferência Técnico Científica - O futuro da mobilidade sustentável, de Portugal para o Mundo, Leixões, Portugal, 10 - 11 December 2024.
- 16.M. Graça, Collaboration: Working Towards The Same Goal. Physiotherapy in Breast Cancer. BEINMED Beira interior - Medical Meeting. 23 January 2024
- 17.N. Braz, B. Marin, B. Santos, G. Figueiredo, S. Brás, M. Marques, F. Ribeiro, B. Oliveiros, P. Encarnação, P. Correia, A.L. Silva, F. Castro, J. Veloso, A.C. Santos, Colon cancer therapy: imaging evaluation of new approaches conjugating natural compounds. Proceedings of XIX Congresso Nacional de Medicina Nuclear, May 09-11, 2024.
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- 22.P. Alves, SmartLipoGel: Smart/stimuli-responsive liposome loaded hydrogels with dual delivery potential for tissue engineering applications, Encontro Ciência 2024, FCT, 3-5 July 2024, Porto *
- 23.P. Nascimento, C.H. Antunes, C. Silv, S. Moniz, Improving the efficiency of logic-based Benders decomposition for large-scale optimization”, IO’2024, 23º Congresso da APDIO, 2024.
- 24.P. Pereira, 6a Reunião Geral de Gestão e Coordenação de PPS, University of Coimbra, Coimbra, Portugal, 16 July 2024.

- 25.P. Pereira, PolySyc, Coimbra Space Training Camp organized by the Institute Pedro Nunes (IPN) and ESA Space Solutions Portugal, Coimbra, Portugal, 26 June 2024.URL: <https://space.ipn.pt/coimbra-space-training-camp/>
- 26.P. V. Mendonça, A. S. R. Oliveira, P. Pereira, A. C. Fonseca, S. Simões, A. C. Serra, J. F. J. Coelho, Novel degradable amphiphilic 4-arm star PLA-b-POEOA and PLGA-b-POEOA block copolymers: synthesis, characterization and self-assembly, IUPAC Macro 2024 The 50th World Polymer Congress, Warwick, United Kingdom, 1-4 July 2024
- 27.P.V. Morais, Investigação no CEMMPRE - Produção de materiais antimicrobianos (Session Engenharia e Saúde: Revoluções no Cuidado e Qualidade de Vida), Encontro Ciência 2024, 3-5 July, Alfândega do Porto, Porto
- 28.R. Farate de Albuquerque, F. Coutinho, J. T. Farinha, A new Legal Metrological Scenario for Medical Devices. Jornadas de Engenharia Biomédica. 15 May. ISEC.
- 29.R. Fernandes, J. S. Jesus, L. Borrego, J. A. M. Ferreira, R. Branco, J. D. M. Costa, Influence of heat treatment on fatigue behavior under variable loading amplitudes of AlSi10Mg alloy manufactured by LPBF, 2024 Portuguese Conference on Fracture, PCF2024, Setúbal, Portugal, 1 - 2 February 2024.
- 30.R. G. Fonseca, Photodegradable, tough and highly stretchable hydrogels, Junior Euromat 2022, Coimbra, Portugal, 19-22 July 2022
- 31.T. Graça, B. Baptista, A. S. R., Oliveira, P. V. Mendonça, A. C. Serra, J. F. J. Coelho, Development of pH-responsive nanoparticles for the protection and delivery of RNAs to cancer cells, 4th Meeting of Young Biophysicists - Biophysics Festival 2024, University of Beira Interior, Covilhã, Portugal, 9-10 May 2024
- 32.T. Graça, B. Baptista, A. S. R., Oliveira, P. V. Mendonça, A. C. Serra, J. F. J. Coelho, Development of pH-responsive nanoparticles for the protection and delivery of RNAs to cancer cells, XIX Annual CICS-UBI Symposium, University of Beira Interior, Covilhã, Portugal, 16-17 July 2024
- 33.Z. S. B. Pedro, J. M. S. Almeida, C. M. A. Brett, Carbon Nanotube And Poly(Thionine) Modified Electrodes With Electropolymerization In Ternary Deep Eutectic Solvents For The Determination Of Ascorbic Acid, 11th Meeting of the Analytical Chemistry Division, Porto, Portugal, 25-25 March 2024
- 34.Z. S. B. Pedro, J. M. S. Almeida, C. M. A. Brett, Determinação de epinefrina no sensor PBG-MWCNT-GCE preparado num solvente eutético ternário por eletropolimerização, s I Jornadas AFROCiências, Bragança, Portugal, 23-24 May 2024

Papers in National Proceedings

1. A. Correia, A. Jesus, C. Silva, S. Moniz, Performance assessment of deep reinforcement learning extensions for flexible job shop scheduling, IO'2024, 23º Congresso da APDIO, 2024.
2. A. Jesus, A. Correia, C. Marques, M. Vieira, C. Silva, S. Moniz, Toward efficient scheduling with AI: Exploring Deep Q-Learning for the flexible job-shop problem, IO'2024, 23º Congresso da APDIO, 2024.
3. A. Oliveira, J. Menezes, J. Torres Farinha, M. Mendes, Estudo e Análise da Aplicabilidade da Realidade Aumentada num Processo de Montagem de Banco de Ensaio de Bicicleta. Proceedings of the ENEGI 2024 (11ª Encontro Nacional de Engenharia e Gestão Industrial 12, 13 September 2024 – ISEC, Coimbra, Portugal), p. 362-377
4. A. Rodrigues, S. Moniz, C. Silva, From theory to practice: optimizing production with operational research in a learning factory”, IO'2024, 23º Congresso da APDIO, 2024.
5. C. Bessa, T. Pinto-Varela, A. Barbosa-Póvoa, C. Silva, S. Moniz, Understanding the dynamics of fairness in wholesale-retail price coordination, IO'2024, 23º Congresso da APDIO, 2024.
6. D. Loureiro, J. L. Martinho, J. T. Farinha, The Impact of Level One Maintenance Performance Analysis in a Workshop: A Wind Blade Factory Case Study. Proceedings of the ENEGI 2024 (11ª Encontro Nacional de Engenharia e Gestão Industrial 12, 13 September 2024 – ISEC, Coimbra, Portugal), p. 277-285
7. J. Costa, J. T. Farinha, M. Mendes, J. Estima, Manutenção Preditiva Avançada de Sistemas com Correias: Integração de Redes LSTM e da Análise da Assinatura da Corrente do Motor. Proceedings of the ENEGI 2024 (11ª Encontro Nacional de Engenharia e Gestão Industrial 12, 13 September 2024 – ISEC, Coimbra, Portugal), p. 39-48
8. J. Menezes, J. T. Farinha, M. Mendes, G. Nadais, Otimização de processos operacionais no ensaio de bicicletas: Um estudo de caso. Proceedings of the ENEGI 2024 (11ª Encontro Nacional de Engenharia e Gestão Industrial 12, 13 September 2024 – ISEC, Coimbra, Portugal), p. 296-307
9. L. Neves, J. T. Farinha, J. Martinho, O Impacto de Novas Tecnologias na Substituição de Ativos. A Life Cycle Cost Analysis Approach Considering System Interdependencies. Proceedings of the ENEGI 2024 (11ª Encontro Nacional de Engenharia e Gestão Industrial 12, 13 September 2024 – ISEC, Coimbra, Portugal), p. 49-59
10. M. Mansilha, M. Vieira, T. Pinto, Otimização de operações de picking através de uma eficiente localização do armazenamento, Proceedings of the 11º ENEGI Encontro Nacional de Engenharia e Gestão Industrial, pages. 389-394, 2024. ISBN 978-989-8331-18-2.
11. P. Figueiredo, H. Raposo, J. T. Farinha, Novo Método de Gestão dos Tempos de Manutenção. Proceedings of the ENEGI 2024 (11ª Encontro Nacional de Engenharia e Gestão Industrial 12, 13 September 2024 – ISEC, Coimbra, Portugal), p. 32-38

- 12.P. Nascimento, C.H. Antunes, C. Silva, S. Moniz, Improving the efficiency of logic-based Benders decomposition for large-scale optimization”, IO’2024, 23º Congresso da APDIO, 2024.
- 13.R. F. de Albuquerque, J. T. Farinha, J. L. Martinho, Optimizing Equipment Replacement Decisions: A Life Cycle Cost Analysis Approach Considering System Interdependencies. Proceedings of the ENEGI 2024 (11ª Encontro Nacional de Engenharia e Gestão Industrial 12, 13 September 2024 – ISEC, Coimbra, Portugal), p. 104-109

Organization of Seminars and Conferences

1. “Dia do Microorganismo” (Day of the microorganism), Exploratório Ciência Viva, Coimbra, 13-15 September. Event open to the community.
2. 10º Congresso da ATEHP, ISEC, 26-27 September 2024. <https://atehp2024.pt/>
3. 10th International IUPAC Conference on Green Chemistry, Beijing, China, 18-22 October 2024
4. 12th Asia Conference on Mechanical and Materials Engineering (ACMME 2024), Tokyo, Japan, 14-17 June 2024
5. 17th International Conference on Advanced Computational Engineering and Experimenting, (ACEX 2024), Barcelona, Spain, 01-05 July 2024
6. 21ª Conferência Ibero Americana WWW/Internet 2024, 11, 12 December 2024. Online. <http://www.wikicfp.com/cfp/servlet/event.showcfp?eventid=181822>
7. 22nd ICC congress, Xian, China, 22-26 October, 2024.
8. 24th IEEE International Conference on Autonomous Robot Systems and Competitions (IEEE ICARSC’2024), Paredes de Coura, Portugal, 2024
9. 28th IEEE Conference on Emerging Technologies and Factory Automation, Track 7 - Intelligent Robots and Systems, IEEE ETFA 2024, Padua, Italy, 2024
- 10.2nd Indo-European Symposium on Surface Engineering, Ranchi, India, 11-12 December 2024
- 11.2nd International Conference on Advanced Manufacturing and Materials Processing - AdvaMAP 2024, Lisbon, Portugal, 10-12th June 2024
- 12.31th Euroma Conference, Barcelona, Spain, 29 June - 3 July, 2024
- 13.4th Workshop On Coated Tools & Multifunctional Thin Films 2024

- 14.5th International Conference on Materials Design and Applications (MDA2024), Porto, Portugal, 4-5 July 2024
- 15.5th International Conference on Quality Innovation and Sustainability (ICQIS 2024), Lisbon, Portugal, 16-19 June 2024
- 16.7th Edition of the Iberoamerican Meeting on Ionic Liquids, Coimbra, Portugal, from 20 -22 November, 2024.
- 17.9th EuChemS (European Chemistry Society) Chemistry Congress, Dublin, Ireland, 7-11 July 2024
- 18.Análítica 2024, 11th Meeting of the Analytical Division of Sociedade Portuguesa de Química, Porto, Portugal, 25-26 March 2024.
- 19.Computing Conference 2024 Future Technologies Conference (FTC) 2024, 14-15 November 2024 | London, United Kingdom
(<https://saiconference.com/FTC2024/CommitteeProfile/6f5c943a-ec06-48c9-b4ed-b87b4c70365a>).
- 20.International Conference on Engineering Manufacture 2024, University of Porto, Portugal, 9-10 May 2024.
- 21.ENEGI24, 11º Encontro Nacional de Engenharia e Gestão Industrial, ISEC, 12-13 September 2024. <https://enegi2024.com/>
- 22.ESEAC 2024, 19th International Conference on Electroanalysis, Ulm, Germany, 23-26 July 2024.
- 23.ICERI2024 17th International Conference of Education, Research and Innovation, Seville, Spain, 1-13 November
- 24.ICORES 2024 - 13th International Conference on Operations Research and Enterprise Systems, Rome, Italy, 24-26 February 2024
- 25.II International Congress of Sport Sciences, Olympism and Olympic Movement 2024
- 26.IMASCON 2024 Autumn, Kocaeli, Turkey, 29-30 November, 2024
- 27.IMASCON 2024 Spring, Kocaeli, Turkey, 31 May - 1 June, 2024
- 28.International Conference on Advanced Materials Characterizations and Applications (ICAMCA-2024), Hammamet, Tunisia, 28-30 October 2024
- 29.International Conference on Electrochemistry for Industry, Health, and Environment (EIHE 2024), 8-10 February 2024, Vellore, India.

30. Participation in the organization of the workshop “Como potenciar a infraestrutura nacional PtmBRCN/MIRRI-PT”. Organized by the University of Coimbra Culture Collection of Bacteria. Exploratório Ciência Viva, Coimbra, 30 October 2024
31. PSE2024, Erfurt, Germany, 2-5 September 2024
32. Seminar “Desafios da sustentabilidade para a manutenção”. 3 December 2024, ISEC.
33. Seminar: Polymers, a Valence in the IPN Ecosystem, IPN, Coimbra, Portugal, 21 February 2024
34. Session Chair in AdvaMAP-2024, 10-12 June 2024, in Lisbon, Portugal
35. SIBAE 2024, XXVI Congresso da Sociedade Iberoamericana de Eletroquímica, Lisbon, Portugal, 19-23 May 2024.
36. Technical Committee Member in AdvaMAP-2024, 10-12 June 2024 in Lisbon, Portugal
37. The Eleventh International Workshop on Biosensors, Marrakech, Morocco, 3-5 October 2024.
38. Winter course “Green strategies for the recovery of critical raw materials using microbial biotools”, funded by project “Biorecover – Development of an innovative sustainable strategy for selective biorecovery of critical raw materials from primary and secondary sources.” (H2020, n°821096). Department of Life Sciences, from 8 to 12 January.
39. Winter School on Ionic Liquids, Coimbra, Portugal, 18-19 November, 2024.
40. XXVI Congresso da Sociedade Iberoamericana de Electroquímica (SIBAE 2024), 19-23 May 2024, Lisbon.

Theses

PhD theses

1. Akmaral Suleimenova, Nanomaterials and biosensors for health applications, NOVA University, September 2024, Supervisors: Goreti Sales, Manuela Frasco e Pedro Barquinha. <https://hdl.handle.net/10316/115739>
2. Alireza Vahidi, Advanced characterization of hard diamond-like carbon films deposited by high power impulse magnetron sputtering in ar-ne plasmas, University of Coimbra, May 2024, Supervisors: João Oliveira and Fábio Ferreira

3. Ana Micaela Barbosa de Sousa, 2D and 3D Sustainable Technologies for the Production of Cardiovascular Stents, University of Coimbra, December 2024, Supervisors: Ana Piedade and Ana Amaro
4. Carlos Manuel Jorge Oliveira Azenha Andrade, Thermo-metallurgical-mechanical modelling of the Selective Laser Melting process at meso-scale to evaluate residual stresses and distortions, University of Coimbra, December 2024, Supervisors: Diogo Neto, Marta Oliveira and José César de Sá
5. Catarina Duarte Batista, Tool steel chips as raw material of additive manufacturing, University of Coimbra, July 2024, Supervisors: Teresa Vieira and Artur Mateus.
<https://estudogeral.uc.pt/handle/10316/116117>
6. Edgar Manuel Neto Carneiro, Reach regulation: alternative coatings to hexavalent chromium, University of Minho, August 2024, Supervisor: Sandra Carvalho.
<https://hdl.handle.net/1822/92953>
7. Edmilson Emanuel Monteiro Correia, Dermatophytes Infections in Cape Verde: Epidemiological Trends and Ethnopharmacological Approach to Treatment. Universidade de Coimbra, Supervisors: Teresa Gonçalves and Paula V. Morais.
<https://hdl.handle.net/10316/114924>
8. Fabiana de Meneses Ribeiro. Performance assessment of the easyPET.3D scanner, following the NEMA NU 4-2008 standards and using animal models, June 2024, Supervisors: João Filipe Calapez de Albuquerque Veloso and Ana Cristina Aguiar dos Santos. <http://hdl.handle.net/10773/42527>
9. Irfam Nadeem, Carbon-based quantum dots for green-lubrication technology, University of Ljubljana/University of Coimbra, December 2024, Supervisors: Albano Cavaleiro, Mitjan Kalin and Ardian Morina
10. João Ricardo Carapito Gonçalves da Costa, Photo-controlled radical polymerization: O-ATRP catalyzed by a phenothiazine derivative and ITP mediated by tosyl iodide, University of Coimbra, July 2024, Supervisors: Arménio Serra, Jorge Coelho and Krzysztof Matyjaszewski. <https://hdl.handle.net/10316/115741>
11. José Edmundo de Almeida Pais, A Model for Optimizing the Life Cycle of Physical Assets based on a Circular Economy Approach, University of Beira Interior, 09 July 2024, Supervisors: António João Marques Cardoso and José Manuel Torres Farinha
12. Luís Miguel Sousa Santos, Fatigue behaviour of maraging steel components built by selective laser melting, University of Coimbra, March 2024, Supervisors: José A. M. Ferreira and Carlos Capela. <https://estudogeral.uc.pt/handle/10316/114926?mode=simple>

13. Maksim Nikonovich, Tribological and Mechanical Performance of Thermoplastic Composites: Effect of Cryogenic Aging and Testing-Environment, Lulea Technical University, 3rd September 2024, Supervisors: Nazanin Emami and Amílcar Ramalho. <https://www.diva-portal.org/smash/get/diva2:1860995/FULLTEXT05.pdf>
14. Najla Boughrara, Caractérisation physique et mécanique des films minces à base de Nitrures III-V élaborés par MOCVD, University of Sfax, 08 January 2024, Supervisor: Zohra Benzarti
15. Roberta Lordelo da Costa, Hospital Microbiology: Structure and Function of Environmental Microbial Communities Surfaces, University of Coimbra, July 2024, Supervisors: Paula V. Morais and Rita Branco, https://estudogeral.uc.pt/retrieve/274952/Disserta%C3%A7%C3%A3o%20submiss%C3%A3o_Roberta%20Lordelo_alt.pdf
16. Saman Khalighi, Biodiesel production: determination of thermodynamic properties and monitoring of the transesterification reaction, University of Coimbra, September 2024, Supervisors: Abel Martins Ferreira and Jaime Santos
17. Santiago Montoya-Zapata, Optimization de la performance globale de systèmes intelligent dans un environnement multi-agents, École Nationale Supérieure d'Art et Métier, June 2024, Supervisors: Olivier Gibaru, Cristóvão Silva and Nathalie Klément. <https://adum.fr/as/ed/cv.pl?mat=136979&site=ensam>
18. Sara Resende, Novel molecularly imprinted photonic sensors applied to inflammatory bowel diseases, IST University of Lisbon, April 2024, Supervisors: Goreti Sales, Paulo Freitas and Manuela Frasco
19. Sérgio da Silva Miraldo, Structural Behavior of Beams Produced with Geopolymer Concrete and Recycled Aggregate, University of Coimbra, October 2024, Supervisors: Sérgio Lopes, Adelino Lopes and Fernando Torgal. <https://estudogeral.uc.pt/handle/10316/117179>
20. Sharjeel Ahmed Khan "Sustainable and Environmentally Friendly Drilling of CFRP-Ti Stacks by DLC Coated Drills - A Tribomechanics Approach" Lulea Technical University, 4th September 2024, Supervisors: Nazanin Emami and Amílcar Ramalho. <https://www.diva-portal.org/smash/get/diva2:1864039/FULLTEXT01.pdf>
21. Sofia Teixeira Saraiva, Development of polymeric membranes for the prevention of post-operative tendon adhesions, University of Coimbra, July 2024, Supervisors: Armenio Serra, Luís Fernando Morgado Pereira de Almeida and Ana Clotilde Fonseca. <https://hdl.handle.net/10316/116120>

MSc theses

1. Adriana Filipa Simões Catalão, Biological and Genetic Diversity Of Bacteria With Ureolytic Activity And Its Application In Biocementation, January 2024, Supervisors: Paula Morais and Pedro Farias. <https://estudogeral.uc.pt/handle/10316/115649>
2. Alexandre Gabriel Fernandes Amaral, Redesigning factory layouts and logistics supply flows, University of Coimbra, July 2024, Supervisor: Vanessa Magalhães. <https://estudogeral.sib.uc.pt/handle/10316/116604>
3. Alexandre Pasqual de Jesus Luís, Fabrico de betoneiras na empresa SIRL, Mestrado em Engenharia Mecânica, Instituto Superior de Engenharia de Coimbra, 16 February 2024, Supervisor: Luis Filipe Borrego. <http://hdl.handle.net/10400.26/51213>
4. Alice Allegretti, Control methods for liquid-gas phase transition soft actuators: from simulation to implementation, Department of Mechanical Engineering of the University of Coimbra (2024), Supervisor: Pedro Neto and Massimo Canale (Politecnico di Torino). <https://webthesis.biblio.polito.it/33336/>
5. Álvaro Diego Bedoya Zapata, TRIBOLOGICAL PERFORMANCE OF SILVER AND OXYGEN-DOPED DIAMOND-LIKE CARBON COATINGS UNDER COPOLYMER ADDITIVES, University of Coimbra, July 2024, Supervisor: Fábio FerreiraAna Alexandra Azougado da Mata Simões Rodrigues, Caracterização estrutural de juntas poliméricas produzidas por Friction Stir Welding, Universidade de Coimbra, September 2024, Supervisor: Ana Amaro
6. Ana Beatriz Almeida Rodrigues, An Experiential Training Approach for Production Line Management, University of Coimbra, February 2024, Supervisor: Samuel Moniz. <https://estudogeral.sib.uc.pt/handle/10316/116332>
7. Ana Rita Ferreira Coutinho, Ligação multimaterial de ligas leves a componentes poliméricos fabricados por impressão 3D, University of Coimbra, July 2024, Supervisor: Carlos Leitão, Rui Leal.
8. Ana Teresa Nunes Abreu, Optimisation of the joining procedure in multimaterial components by additive technology, February 2024, Supervisors: Carlos Leitão and Ivan Galvão. <https://estudogeral.uc.pt/handle/10316/116467>
9. André Abreu Agra, Study of the pre-strain effect on fatigue crack growth in aluminum alloy 2024-T351, University of Coimbra, July 2024, Supervisors: Diogo Neto and Edmundo Sergio.
10. André Abreu Couto, A Decision Support Tool for Multi-Criteria Analysis, University of Coimbra, July 2024, Supervisor: Samuel Moniz and Luis Paquete. <https://estudogeral.sib.uc.pt/handle/10316/116504>
11. Andreia Teixeira Mota, Standardization and Digitalization of Work Instructions in the Automotive Industry Sector, University of Coimbra, September 2024, Supervisor: Vanessa Magalhães

12. Anthony Neiva Silva. Effect of the Gurson-Tvergaard-Needleman Damage Model on the Characterization of Physical Parameters of Fatigue, University of Coimbra, February 2024. Supervisors: Edmundo Sergio and Diogo Neto.
13. Antonio Antunes, Machine Learning-Based Prediction of Electric Vehicle Charging Demand Patterns, Master Thesis in Electrical and Computer Engineering, University of Coimbra, 2024.
14. António José de Melo e Castro Vieira, Ligação Heterogénea de Titânio e Magnésio por Friction Stir Spot Welding, Polytechnic University of Lisbon, July 2024, Supervisor: Ivan Galvão, Carlos Leitão and Rui Leal.
15. Arthur Jorge Pereira Corrêa, Performance assessment of deep q-learning extensions for flexible job-shop scheduling, University of Coimbra, July 2024, Supervisor: Samuel Moniz. <https://estudogeral.sib.uc.pt/handle/10316/116506>
16. Artur Jorge Azinhaga Cardoso da Silva, Stock Optimization in Make-to-Order Production Environments: A Case Study Using DDMRP, University of Coimbra, July 2024, Supervisor: Samuel Moniz. <https://estudogeral.sib.uc.pt/handle/10316/116575>
17. Beatriz Isabel Saúde da Cunha, Estudo do fenómeno de iniciação de fendas por fadiga na liga de Alumínio AlSi10Mg produzida por LB-PBF sujeita a esforços combinados de flexão-torção, University of Coimbra, March 2024, Supervisors: José Domingos and Ricardo Branco.
18. Bryan Henriques Serra, DEVELOPMENT OF LUBRICATION SYSTEMS TO IMPROVE THE PERFORMANCE OF MECHANICAL COMPONENTS, University of Coimbra, September 2024, Supervisor: Fábio Ferreira and Luís Vilhena
19. Carlos André Almeida Roxo, Inspeção visual automática com redes neuronais convolucionais: Uma aplicação numa montagem industrial, September 2024, Supervisor: Cristóvão Silva and Jérôme Mendes
20. Carlos Gaspar, Study of Metrics for Assessing Interpretability of Fuzzy Systems, Master Thesis in Electrical and Computer Engineering, University of Coimbra, 2024, Supervisor: Jérôme Mendes. <https://hdl.handle.net/10316/115618>
21. Carlos Miguel Rodrigues Monteiro, Influência da variabilidade de espessura em processos de estampagem, University of Coimbra, July 2024, Supervisors: Marta Oliveira and André Pereira. <https://estudogeral.uc.pt/handle/10316/116312>
22. Carlos Roxo, Automated Visual Inspection Using Convolutional Neural Networks: An Industrial Assembly Application, Master Thesis in Engineering Physics, University of Coimbra, 2024.

23. Catarina Bazenga Baptista Jardim, Desenvolvimento de revestimentos poliméricos anti-adesivos para aplicação em implantes médicos, Universidade de Coimbra, September 2024, Supervisor: Patrícia Mendonça
24. Catarina de Oliveira Pereira, Metaheuristic Approaches for the Consistent Vehicle Routing Problem, September 2024, Supervisor: Telmo Pinto.
25. Catarina Diana Ribeiro Pereira, Distribuição Eficiente de Recursos numa Empresa Prestadora de Serviços de Manutenção, University of Coimbra, July 2024, Supervisor: Luis Miguel Ferreira. <https://hdl.handle.net/10316/116277>
26. Catarina Galego Marmelo Caçador Neves, Influência do método de síntese para a preparação de nanopartículas de óxido de zinco como fotocatalisadores para a degradação de fármacos. Universidade de Coimbra, September 2024, Supervisors: Andreia Romeiro and Mariana Ghica
27. Daniel dos Santos Lopes, Implementação de um Software de Manutenção em Contexto Hospitalar, 27 November 2024, Supervisors: José Torres Farinha and Hugo Raposo
28. Daniel Henrique Pedrosa Jorge, Aplicação da metodologia DMAIC na gestão de stocks de matéria-prima: um estudo de caso da indústria de laminagem de perfis de aço inoxidável, July 2024, Supervisor: Telmo Pinto. <https://estudogeral.uc.pt/handle/10316/116264>
29. Daniela Nunes Carlos, Metodologias de melhoria contínua aplicadas à manutenção industrial, University of Coimbra, July 2024, Supervisor: Luis Miguel Ferreira. <https://hdl.handle.net/10316/116296>
30. Diogo Alfredo Martins da Rocha, Standardização e digitalização de instruções para a automatização de procedimentos de pintura de cápsulas de madeira, July 2024, Supervisor: Telmo Pinto.
31. Diogo Antunes Rocha, Influência da deformação cíclica no desempenho de componentes flexíveis para eletrónica: cabos de ligação flexíveis, Mestrado em Engenharia Mecânica, September 2024. Supervisors: Amílcar Ramalho and Luís Vilhena
32. Diogo Capitão Rodrigues. Analysis of fatigue crack growth in steel specimens produced by Wire-Arc Additive Manufacturing, Supervisors: Joel Alexandre da Silva de Jesus and Ricardo Nuno Madeira Soares Branco. <https://hdl.handle.net/10316/116380>
33. Diogo Firmino Marques Gomes, Dispositivo para deteção microplásticos, University of Coimbra, July 2024, Supervisor: Pedro Faia. <https://hdl.handle.net/10316/116297>
34. Diogo Manuel Rijo Gomes, Desenvolvimento e implementação de tecnologias de melhoria contínua: Karakuri Kaizen, University of Coimbra, July 2024, Supervisor: Cristóvão Silva. <https://estudogeral.uc.pt/handle/10316/116236>

35. Diogo Vieira, Life Fatigue Prediction for SLM Aluminium Alloy ALSi10Mg Using Half-Life Based Models. Supervisor: Joel Alexandre da Silva de Jesus
36. Duarte Nuno Moreira Dias, Efeito das chuvas ácidas no desempenho mecânico de juntas adesivas usadas no setor automóvel, University of Coimbra, March 2024, Supervisors: José Domingos and Paulo Reis.
37. Duarte Vicente da Cruz Monteiro, Implementação/Aprovação de Sistema Automático para o Processo de Polimento Cruzado, Universidade de Coimbra, September 2024, Supervisor: Ana Amaro
38. Eduardo Bambi Valuca, Estudo de tempos e métodos para a identificação de desperdícios e gargalos numa linha de reparação de endoscópios, University of Coimbra, July 2024, Supervisor: Cristóvão Silva. <https://estudogeral.uc.pt/handle/10316/116384>
39. Eduardo Borges Matos. Mechanical Behaviour of Non-Carbon Nanotubes: a Numerical simulation study. University of Coimbra. July 2024. Supervisors: Nataliya Sakharova and André Pereira. <https://estudogeral.uc.pt/handle/10316/116400>
40. Emanuel Pipiraité Cardoso, Combatendo a doença de Alzheimer usando copolímeros multivalentes, Universidade de Coimbra, October 2024, Supervisor: Patrícia Pereira
41. Eva Melo dos Santos, Desenvolvimento de Eléktrodo para a Produção Eletrocatalítica de H₂, University of Coimbra, September 2024, Supervisor: Diogo Cavaleiro
42. Fernando Rafael Carvas Monteiro, Life Cycle Evaluation of Physical Assets in a Large European Hospital, 15 March 2024, Supervisors: José Torres Farinha and Hugo Raposo
43. Filipa Alexandra de Sousa Freitas, Soft Competencies for Project Managers in a Digital World, University of Coimbra, July, 2024, Supervisor: Gabriela Fernandes. <https://hdl.handle.net/10316/116544>
44. Filipe Manuel da Silva Rodrigues, Otimização da Têmpera Laser para Endurecimento Superficial de Aços, University of Coimbra, 2024, Supervisors: Ana Sofia Ramos and Eduardo Silva
45. Francisca Moreira Silva, Governance Models for Collaborative Project Management: a case study, University of Minho, January 2024, Supervisor: Gabriela Fernandes
46. Francisco Carlos Guedes Paiva, Manutenção Preditiva de uma Prensa de Secagem, 13 March 2024, Supervisors: Luís Margalho and José Torres Farinha
47. Francisco Daniel Pinto Dias, Implementing a Project Management and Control System in Power BI in the Industrialization Department of a Company in the Leather Goods Sector, University of Coimbra, September 2024, Supervisor: Vanessa Magalhães

48. Francisco Manuel dos Santos Melo, Implementation of Standard Work Principles for the Continuous Improvement of a Process in the Ceramics Industry, University of Coimbra, September 2024, Supervisor: Vanessa Magalhães
49. Gabriel Afonso Guerreiro dos Santos, Alternative tribological coatings for bike chains deposited by electroplating. July 2024, Supervisors: Sandra Carvalho and Susana Devesa. <https://estudogeral.uc.pt/handle/10316/116472>
50. Giorgio Zoppi, Recognition and anticipation of human actions in a human-robot collaborative assembly scenario, Department of Mechanical Engineering of the University of Coimbra (2024), Supervisor: Pedro Neto (DEM-UC) and Giacomo Palmieri (Università Politecnica delle Marche)
51. Gonçalo Abrantes, Fabrico aditivo de ligas de alta entropia para o setor aeroespacial, Universidade de Coimbra, July 2024, Supervisors: Bernardo Alves and Patrícia Rodrigues. <https://hdl.handle.net/10316/116337>
52. Gonçalo Neves Lourenço, Numerical study of damage accumulation phenomena in high-strength aluminum alloys. University of Coimbra, Supervisors: Ricardo Branco and Pedro Prates. <https://hdl.handle.net/10316/116256>
53. Guilherme Miguel de Almeida Pereira Freire de Oliveira, Melhoria da Gestão de Defeitos Elétricos na Indústria Automóvel: Estratégias Baseadas em Dados e Soluções de Realidade Mista, July 2024, Supervisor: Telmo Pinto. <https://estudogeral.uc.pt/handle/10316/116516>
54. Gustavo António Aleixo Rua, Characterization of motorcycle helmets, University of Coimbra, July 2024, Supervisor: Ana Paula Piedade. <https://hdl.handle.net/10316/116430>
55. Hélio Caquelengo David, Melhoria de Processos e Fluxos num Parque de Madeiras: Integração de Metodologias Kaizen e Eficiência Energética, University of Coimbra, July 2024, Supervisor: Luis Miguel Ferreira. <https://hdl.handle.net/10316/116574>
56. Hugo Ferreira Silva Rabadão, Redução de consumos de matérias subsidiárias na indústria papelaria: Uma abordagem integrada do ciclo DMAIC e Kobetsu Kaizen, University of Coimbra, July 2024, Supervisor: Cristóvão Silva. <https://estudogeral.uc.pt/handle/10316/116424>
57. Inês Fernandes Uterelo, Improvement of the Sales and After-Sales Service Processes: a Distribution Company Case Study, University of Coimbra, July 2024, Supervisor: Gabriela Fernandes. <https://hdl.handle.net/10316/116279>
58. Isabel da Luz Fonseca, Enhancing Healthcare efficiency: A strategic analysis of Hospital at Home and Addressing Scheduling and Routing challenges in a Portuguese Healthcare Unit, University of Coimbra, September 2024, Supervisor: Samuel Moniz.

- 59.Ivo Rafael Parda Sério, Implementação de Dashboard de KPI's de Manutenção na Fábrica da Siemens Gamesa, 01 March 2024, Supervisors: José Torres Farinha and Hugo Raposo
- 60.Joana Carolina Figueiredo Almeida, Traceability in Food Supply Chains: A Systematic Literature Review and Prioritization of the Critical Barriers, University of Coimbra, July 2024, Supervisor: Vanessa Magalhães
- 61.Joana Isabel Tavares Menezes, Otimização de processos para aumento da eficiência operacional no setor das duas rodas, 17 October 2024, Supervisors: José Torres Farinha and Mateus Mendes
- 62.Joana Leiria, Data entry errors detection for quality control variables using data-driven models, Master Thesis in Engineering Physics, University of Coimbra, 2024, Supervisors: Jérôme Mendes and Pedro Moura. <https://hdl.handle.net/10316/116274>
- 63.Joana Mendes Casais, Gross Margin Improvement of Cork Rubber Sheets Lamination Process, University of Coimbra, July 2024, Supervisor: Vanessa Magalhães
- 64.Joana Pêgo, Design e fabrico de dissipadores usando processamento por fricção linear. Supervisor: Joel Alexandre da Silva de Jesus
- 65.João António Gamboa Marques, Identificação de parâmetros com técnicas de Machine Learning, Universidade de Aveiro, Supervisors: Pedro Prates and André Pereira
- 66.João António Loureiro de Jesus, Métodos de otimização para o sistema de manufatura flowshop de permutação na indústria automóvel, July 2024, Supervisors: David Pinheiro and Telmo Pinto. <https://estudogeral.uc.pt/handle/10316/116341>
- 67.João Delfim Sequeira da Silva, Melhoria Integrada de Processos e Análise Preditiva para a Gestão de Frota numa empresa Rent-a-Car, University of Coimbra, September 2024, Supervisor: Luis Miguel Ferreira
- 68.João Filipe Matos Coutinho, Contributions for Portuguese and European Projects to help increasing the Railway Sector, 11 March 2024, Supervisors: José Torres Farinha and Hugo Raposo
- 69.João Gonçalo Bastos Correia Amaro. Numerical simulation of the mechanical behaviour of multiwalled carbon nanotubes. University of Coimbra. July 2024, Supervisors: Nataliya Sakharova and André Pereira. <https://estudogeral.uc.pt/handle/10316/116317>
- 70.João Henrique Vieira Spínola Nunes, Estudo das forças aerodinâmicas de um sistema eólico de orodução de energia elétrica, December 2024, Supervisors: Nuno Domingues and Ivan Galvão

71. João Paulo Proença Costa, Monitorização e manutenção preditiva em motores elétricos com base na análise espectral, 19 July 2024, Supervisors: José Torres Farinha and Mateus Mendes
72. João Pedro da Costa Monteiro, Identificação de parâmetros de chapas metálicas com recurso à metamodelação do ensaio hidráulico de expansão biaxial. Supervisors: André Pereira
73. João Pedro de Jesus Silva, Manutenção na SRAMPORT, Mestrado em Engenharia Mecânica, Instituto Superior de Engenharia de Coimbra, 09 Februar 2024, Supervisor: Luis Filipe Borrego. <http://hdl.handle.net/10400.26/51867>
74. João Pedro Pedrosa Marcelino, Synthesis and characterization of silk fibroin-based hydrogels for biomedical applications. University of Coimbra, September 2024, Supervisor: Rita G. Fonseca and Jorge F. J. Coelho
75. João Ricardo Simões Luis, Hydrogen embrittlement of 316L stainless steel welded joints. 25 July 2024, Supervisor: Joel Alexandre da Silva de Jesus and Luís Miguel Cardoso Vilhena Pereira da Silva. <https://hdl.handle.net/10316/116393>
76. João Rodrigues Gaspar. IDENTIFICATION OF PHB DEGRADING BACTERIAL STRAINS, MOLECULAR AND BIOCHEMICAL CHARACTERIZATION OF PHB DEPOLYMERASES. University of Coimbra. September 2024, Supervisors: Diogo Neves Proença and Paula V. Morais
77. João Vítor Miguel de Sousa, Influência da manutenção na eficiência energética de sistemas de acionamento eletromecânicos: motorreductores industriais, Universidade de Coimbra, Mestrado em Engenharia Mecânica, 27 September 2024, Supervisors: Amílcar Ramalho and David Braga
78. Joaquim Filipe Pereira Pinto. Screening of bacteria with potential to produce added-value bioproducts from agro-industrial waste, 20 September 2024, Supervisors: Jorge Pereira and Paula V. Morais
79. Jorge André da Silva Brás Pinto, com o título, Implementação de um sistema de metrologia numa organização do setor médico, ISEL, November 2024, Supervisor: Ivan Galvão
80. Jorge González Garcia, Industrial Automation system for lean manufacturing, University of Coimbra, July 2024, Supervisors: Cristóvão Silva and Jérôme Mendes
81. José Diogo Fernandes Martins Monteiro Baeta, Gestão de inventário no setor da saúde: Estudo de caso de um hospital público, University of Coimbra, July 2024, Supervisor: Luis Miguel Ferreira. <https://hdl.handle.net/10316/116267>
82. José Maria Rodrigues Gaspar. Numerical simulation of the multiaxial fatigue behavior of high resistance aluminum alloys, University of Coimbra, September 2024. Supervisors: Ricardo Branco and Diogo Neto.

83. José Pedro Flores Ribeiro Freitas, Desenvolvimento de um equipamento industrial de preparação de amostras para caracterização morfológica de elementos soldados, Polytechnic University of Lisbon, November 2024, Supervisor: Ivan Galvão and Rui Leal
84. Kátia Elias, Reestruturação estratégica numa empresa do setor metalomecânico: Uma abordagem de produção modular, University of Coimbra, July 2024, Supervisor: Cristóvão Silva. <https://estudogeral.uc.pt/handle/10316/116548>
85. Lara Borges Pacheco, Study of LiNi_{0.8}Co_{0.1}O₂ thin film cathode deposited by magnetron sputtering technique for Li-ion Batteries, 30 June 2024, Supervisors: Zohra Benzarti and Sandra Carvalho
86. Leonor Castro Bispo, Influence of the Sterilization Process on the Properties of Mouthguards Produced by Additive Manufacturing, University of Coimbra, July 2024, Supervisor: Ana Paula Piedade and Ana Micaela Sousa. <https://hdl.handle.net/10316/116381>
87. Leonor Coutinho Carmo, Análise de Estratégias de melhoria contínua de processos organizacionais, October 2024, Supervisor: Ivan Galvão
88. Leonor Maria Bergstöm Chaves, Optimization of bioink formulations for peripheral nerve regeneration, Department of Materials Science, NOVA-FCT, December 2024, Supervisor: Patrícia Pereira
89. Lourenço Branco Mata, Numerical study of fatigue behaviour in notched geometries produced by SLM from aluminium alloys subjected to bending-torsion and torsion-tension loads, New University of Lisbon, 06 december 2024, Supervisors: Rui Martins and Ricardo Branco.
90. Lucas Oliveira Henriques, Fault Detection and Prediction for a Wood Chip Screw Conveyor, 09 April 2024, Supervisors: Mateus Mendes and José Torres Farinha
91. Mafalda Amaro, Modeling and Control of pH in Tubular Photobioreactors on Microalgae Plant, Master Thesis in Electrical and Computer Engineering, University of Coimbra, 2024. Supervisors: Jerôme Mendes and Rui Araújo. <https://hdl.handle.net/10316/115634>
92. Mahrukh Javed, Influence of Texturing on the tribological properties of PLA-based parts produced by additive, University of Coimbra, July 2024, Supervisor: Bruno Trindade
93. Malcolm João Padre António, Integridade Estrutural de uma Pedaleira Produzida Por Manufatura Aditiva, Mestrado em Engenharia Mecânica, Instituto Superior de Engenharia de Coimbra, 27 September 2024, Supervisor: Luis Filipe Borrego

94. Maria Eduarda Costa Duarte, Desenvolvimento de pensos antimicrobianos para feridas baseados em poliesteramidas à base de alfa-aminoácidos. University of Coimbra, September 2024, Supervisor: Ana Clotilde Fonseca and Patrícia Vitorino Mendonça
95. Maria Francisca Reis Ribeiro Rénio, Desenvolvimento de membranas poliméricas para a prevenção de adesões peritendinosas, University of Coimbra, February 2024, Supervisor: Ana Clotilde Fonseca and Carlos Tadeu Paula
96. Maria Helena Barros Araújo, Integrating Innovation Management into Collaborative Projects, University of Minho, March 2024, Supervisor: Gabriela Fernandes
97. Maria Regina Mendes Luís, Caracterização e Monitorização de Indicadores de Desempenho no Bloco Operatório: Um Estudo de Caso num Hospital Público, University of Coimbra, July 2024, Supervisor: Luis Miguel Ferreira. <https://hdl.handle.net/10316/116432>
98. Maria Santos Silva, Analysis of postural control in sit-to-stand movement and its relationship with communication and language in infants with typical development aged 9-15 months: a cohort study, Supervisors: Maria António Castro and Sónia Pós de Mina.
99. Mariana de Carvalho Mansilha, Otimização de operações de picking através de uma eficiente localização do armazenamento, July 2024, Supervisors: Miguel Vieira and Telmo Pinto. <https://estudogeral.uc.pt/handle/10316/116311>
100. Mariana Lopes Colaço, Caracterização de Materiais Processados por Fabrico Aditivo para o Desenvolvimento de Modelos de Treino Médico, Universidade de Coimbra, July 2024, Supervisor: Ana Amaro
101. Marta Correia, Synthetic vesicles for biomimetic photonic biosensing, University of Coimbra, September 2024, Supervisors: Manuela Frasco and Goreti Sales
102. Marta Oliveira Mota de Meneses Falcão, Caracterização do atleta de basquetebol federado e análise da relação dessas características com o estudo retrospectivo de lesões, Supervisors: Luís Miguel Costa Carrão, Nuno André Santos Tavares and Paula Susana Gonçalves Lopes
103. Matilde Cabral de Medeiros, 3D PRINTING OF WOUND DRESSING MATERIALS USING A LIGHT-BASED TECHNOLOGY, Universidade de Coimbra, September 2024, Supervisor: Carlos Paula, Arménio Serra and Patrícia Pereira
104. Matilde da Conceição Castanho Afonso, Implementação de Novos Produtos num Sistema de Planeamento e Controlo de Produção, University of Coimbra, September 2024, Supervisor: Luis Miguel Ferreira
105. Miguel Costa Jorge. Development of a column packing system for gas purification, University of Coimbra, February 2024, Supervisors: Diogo Neto and José Barge.

106. Miguel Proença, Interpretable Digital Twin for Industrial Process, Master Thesis in Electrical and Computer Engineering, University of Coimbra, 2024. Supervisors: Jérôme Mendes and Rui Araújo. <https://hdl.handle.net/10316/115621>
107. Miguel William Fataki Anakou, Desenvolvimento de uma ferramenta integrada para a melhoria da visibilidade na gestão de projetos: Um estudo de caso na Efacec Energia, September 2024, Supervisor: Cristóvão Silva
108. Mikhael Brener Sousa Rodarte, Scaffolds Multifuncionais De Alumina Com Bioatividade Aprimorada E Propriedades Microbianas Para Engenharia De Tecido Ósseo, February 2024, Supervisors: Sandra Carvalho and Roseli Balestra
109. Nihed Ben Salah, study of Ni doped BiFeZrTiO₃ ferroelectric ceramics for energy storage and harvesting applications, 20 October 2024, Supervisors: Najmeddine Abdelmoula and Zohra Benzarti
110. Patrícia Costa Cruz, Evaluating the Environmental Impact of Food Loss and Waste: A Comprehensive Method Review, University of Coimbra, July 2024, Supervisor: Vanessa Magalhães
111. Patrícia Laja Figueiredo, Standard Work and Optimization of Finishing Lines in a Wood Industry, University of Coimbra, July 2024, Supervisor: Vanessa Magalhães. <https://estudogeral.sib.uc.pt/handle/10316/116567>
112. Patrick Afonso Correia Amaral, Parametrization of deposited weld beads for metal additive manufacturing, University of Coimbra (2024). Supervisors: David Andrade and Ricardo Branco.
113. Paulo Alexandre Lucas Figueiredo, Life Cycle Analysis – A Global Approach, 17 October 2024, Supervisors: José Torres Farinha and Mateus Mendes
114. Pedro Faustino Leal, Estudo da influência dos parâmetros de soldadura na formação de porosidades em moldes para a indústria vidreira, University of Coimbra, September 2024, Supervisor: Carlos Leitão and Rui Leal.
115. Pedro Joaquim Soares Félix, Improvement of Project Management Processes: A Case Study in the Renewable Energy Sector, University of Coimbra, July 2024, Supervisor: Samuel Moniz. <https://estudogeral.sib.uc.pt/handle/10316/116499>
116. Pedro Miguel Lima Almeida, Applications of Artificial Intelligence in Project Management: A Systematic Literature Review, University of Coimbra, July 2024, Supervisor: Gabriela Fernandes. <https://hdl.handle.net/10316/116576>
117. Pedro Miguel Ludovino Seixas. Modelling and quantification of uncertainties associated with misalignments in the stamping process, University of Coimbra, September 2024, Supervisors: André Pereira and Diogo Neto.

118. Pedro Pires Braguês, Projeto de um triturador para reciclagem de PLA e ABS resultantes de impressões 3D, November 2024. Supervisors: André Carvalho and Ivan Galvão
119. Pedro Rodrigues, Desenvolvimento de uma Tampa para Caixas de Visita em Betão de Alta Resistência com Revestimento em polipropileno, September 2024, Supervisors: M. Augusta Neto and V. Lopes Maranha
120. Rafael Carvalho Assunção, Caracterização de Diversos Materiais Obtidos por Fabrico Aditivo para Aplicações Médicas, Universidade de Coimbra, July 2024, Supervisors: Ana Amaro and Fátima Paulino
121. Rafael Santos Pereira, The impact of digitalization on suppliers quality management in an HVAC systems organization, University of Coimbra, September 2024, Supervisor: Vanessa Magalhães
122. Rafael Tomás Nunes, Produção e caracterização de filmes multifuncionais para aplicações de elevado desempenho, University of Coimbra, September 2024. Supervisors: Ana Sofia Ramos and Patrícia Freitas Rodrigues.
123. Ricardo Rocha Mendes, Numerical simulation of fatigue behaviour under variable amplitude loading, University of Coimbra, July 2024, Supervisors: Diogo Neto and Ricardo Branco.
124. Rik Deschepper, Low cycle fatigue behavior of SLM 316l stainless steel. University of Coimbra, 2024, Supervisors: Ricardo Branco and Joel de Jesus.
125. Rita Mendes Ferreira Claudino de Freitas, Aplicação da Metodologia DMAIC para a Melhoria de Processos de Enchimento de Garrafas PET, July 2024, Supervisor: Telmo Pinto. <https://estudogeral.uc.pt/handle/10316/116535>
126. Rodrigo Alexandre da Cruz Sargaço, Business Process Management: Performance Monitoring of the Order-to-Cash Process, University of Coimbra, July 2024, Supervisor: Samuel Moniz. <https://estudogeral.sib.uc.pt/handle/10316/116404>
127. Rodrigo Almeida Pereira, Navigation of a high-payload mobile robot operating in cluttered environments, Department of Mechanical Engineering of the University of Coimbra (2024), Supervisor: Pedro Neto. <https://webthesis.biblio.polito.it/33336/>
128. Rodrigo Manuel Farate de Albuquerque, Reorganization of Physical Assets and Maintenance in a Portuguese Hospital, 24 November 2024, Supervisors: José Torres Farinha and Fernanda Coutinho
129. Rodrigo Ramos Marques, Ecografia versus elastografia no diagnóstico da fibrose hepática, University of Coimbra, September 2024, Supervisor: Jaime Santos

130. Rúben Tavares de Almeida, Análise comparativa de uma formulação hipoelástica com uma hiperelástica na simulação de processos de conformação de chapas metálicas, University of Coimbra, July 2024, Supervisors: Marta Oliveira and João Brito.
131. Rui da Costa Ferreira, Study of the fatigue phenomenon in AlSi10Mg aluminium alloy produced by LB-PBF subjected to combined bending-torsion loading. University of Coimbra. 25 July 2024, Supervisors: Ricardo Branco and José Costa.
<https://hdl.handle.net/10316/116244>
132. Saif Rahman Khan, The Effect of Coating Thickness on the Tribo-Mechanical Properties of W-S-C Coatings Deposited by Magnetron Sputtering, July 2024, Supervisors: Albano Cavaleiro and Todor Vuchkov
133. Sebastian Ursula Baron, Thermal stability of DLC coatings for next generation of internal combustion engines, University of Coimbra, July 2024, Supervisors: João Oliveira and Ricardo Serra.
<https://infordocente.uc.pt/nonio/pautas/downloadDocumentoTesesDissertacoes.do?args=11610253547860812>
134. Simão Gonçalves Pereira, Evaluating of the Ability of Additive Manufacturing for the Biomimetization of Atherosclerosis, University of Coimbra, September 2024, Supervisor: Ana Paula Piedade. <https://hdl.handle.net/10316/116482>
135. Tatiana Vaz Ribeiro, Optimizing the Lung Cancer Patient Journey: Application of Lean Methodologies in a Hospital Context, University of Coimbra, September 2024, Supervisor: Samuel Moniz.
136. Tiago Alexandre Dias Simões, Efficiency Improvement of an Automatic Painting Line, University of Coimbra, February 2024, Supervisor: Samuel Moniz.
<https://estudogeral.sib.uc.pt/handle/10316/116250>
137. Tiago André Rodrigues Narciso. Analysis of fatigue crack propagation on load patterns produced by trains on railway bridges, University of Coimbra, July 2024. Supervisors: Diogo Neto and Edmundo Sergio.
138. Tiago Filipe Aleixo Leite, Otimização das dimensões de bobines para lotes de produção numa área de estampagem a frio, 24 October 2024, Supervisors: José Torres Farinha and Mateus Mendes
139. Tiago Lopes Carvalho, Projeto de uma Estação Robotizada para Retrabalho de Peças Plásticas, University of Coimbra, 08 October 2024, Supervisors: Fernando Antunes and Manuel Silva (Inoveplastika, Barcelos).

140. Tiago Samuel Silva Graça, Desenvolvimento de nanopartículas responsivas ao pH para proteção e entrega de RNAs a células cancerígenas, Universidade da Beira Interior, November 2024, Supervisor: Patrícia Mendonça
141. Tomás Rodrigues Gomes, Optimization of stocks and warehousing in a plastic injection factory through DDMRP and Lean Warehousing, University of Coimbra, July 2024, Supervisor: Samuel Moniz.
142. Tonny Javier Ramalho Mendes, Análise do Ciclo de Vida do Ativo de Captação de Água de Fervença, com Ênfase na Vertente do Consumo Energético, 11 April 2024, Supervisors: José Torres Farinha and Hugo Raposo
143. Toukir Ahmed, Tribology Behaviour in High-performance Coatings for Bike Chains Deposited by PVD, University of Coimbra, July 2024, Supervisor: Diogo Cavaleiro
144. Victor Tambellini Cordeiro Gestão de Projetos, A utilização da metodologia PERT/CPM na manutenção de uma prensa de extrusão de alumínio, 09 April 2024, Supervisors: José Torres Farinha and Ana Vieira
145. Vladyslava Trachenko, In Vitro & In Vivo Adjuvant Impact of Green Tea Extract on Breast Cancer Treatment - Imaging With Easypet.3d System Combined With Histopathology, University of Coimbra, September 2024, Supervisor: Ana Cristina Santos
146. Wilder Clemente Faria Mutunda, Implementing Lean methodologies to enhance productivity in a metalworking company, University of Coimbra, September 2024, Supervisor: Vanessa Magalhães
147. William Neves Dias, Implementing an Asset Administration Shell Platform for Collaborative Robotic Cells, Department of Mechanical Engineering of the University of Coimbra (2024), Supervisor: Pedro Neto

Laboratory prototypes

1. Development of a laboratory prototype for microplastics estimation in suspensions
2. Development of a laboratory prototype of a corrosion testing system
3. FactoryLab: Implementation of a Learning Factory (2024)

Pilot plan

1. Pilot at Panasqueira mine (from project Reviving) for the extraction of metals from mining residues (tailings) by feeding of organic acids

2. Production and organic functionalization of clay aerogels by freeze-drying process for thermal insulation and environmental control applications
3. Scale-up and integration of the Pt-binding biopolymer produced at UC (project Biorecover) in a pipeline of platinum extraction from mining leachates. Performed at CETIM, La Coruña, Spain
4. Semi-industrial/pilot 3D printing gantry system for concrete and cementitious-like materials with an actual printing volume X,Y,Z: 1150x1210x1200mm

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