

## I. Biographical data

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### Professional Address

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## II. Degrees Obtained

- *Habilitation* in Chemical Engineering, University of Coimbra (December, 2016);
- Ph.D. in Chemical Engineering, University of Coimbra (March 27, 2006);
- Teaching Ability and Scientific Capacity Examinations, University of Coimbra (November 23-24, 2000);
- Licentiate Degree in Chemical Engineering, University of Coimbra (September 7, 1995);

## III. Professional Activity

### III.1 Academic

- Associate Professor with *Habilitation* at the Department of Chemical Engineering of the University of Coimbra (September 18, 2019– );
- Auxiliary Professor with *Habilitation* at the Department of Chemical Engineering of the University of Coimbra (December 16, 2016 – September 17, 2019);
- Auxiliary Professor at the Department of Chemical Engineering of the University of Coimbra (March 27, 2006 – December 16, 2016);
- Teaching Assistant at the Department of Chemical Engineering of the University of Coimbra (November 25, 2000 – March 27, 2006);
- Teaching Assistant (probation) at the Department of Chemical Engineering of the University of Coimbra (November 3, 1997 – November 24, 2000);
- R&D Engineer at Soporcel, SA (pulp and paper company) (November 20, 1995 – November 3, 1997).

### III.2 Other Professional Activities

- President of the *European Network for Business and Industrial Statistics* (ENBIS), (2015-2017);
- Vice-President of the *European Network for Business and Industrial Statistics* (ENBIS), (2011-2013);
- Elected member of the *ENBIS Council* (2004-2006);
- *Fellow of the Royal Statistical Society* (2007-2008);
- *Member of the American Association for the Advancement of Science* (AAAS) (2008- 2009).
- Consulting (process improvement and data analysis), courses for executives on Six-Sigma and applied statistics).

### III.3 Editorial Roles

- Chemometrics Intelligent Laboratory Systems (Editorial Board, 2023 - present)
- Chemical Engineering Science (Member of the International Advisory Panel, 2022 - present);
- Statistical Papers (Associate Editor, 2021 - present)
- Processes (Editorial Board, 2021 - present)
- Quality Engineering (Editorial Board, 2016-2018).

## IV. Publications and Communications

### IV.1 Thesis and Dissertations

1. **Reis, M.S.**, *Data-Driven Multiscale Monitoring, Modelling and Improvement of Chemical Processes*. PhD. Thesis. University of Coimbra: Coimbra (2006).
2. **Reis, M.S.**, *O “Curl” do Papel*. Department of Chemical Engineering at the University of Coimbra: Coimbra (2000). Teaching Ability and Scientific Capacity Examinations (Part I).
3. **Reis, M.S.**, *Introdução à Análise Multiresolução e suas Aplicações no Contexto da Engenharia Química*. Department of Chemical Engineering at the University of Coimbra: Coimbra (2000). Teaching Ability and Scientific Capacity Examinations (Part II).

### IV.2 Books

4. **Reis, M.S.**, *Estatística para a Melhoria de Processos – A Perspectiva Seis Sigma*. Coimbra: Imprensa da Universidade de Coimbra, 2016. In Portuguese.
5. Saraiva, P.M., J. d'Orey, P. Sampaio, **M.S. Reis**, C. Cardoso, J. Pinheiro, L. Tomé, *O Futuro da Qualidade em Portugal*. Lisboa: APQ, 2010. ISBN: 978-972-9388-04-0. In Portuguese.

### IV.3 Book Chapters

6. **Reis, M.S.**, *Controlo Estatístico de Processos no Século XXI*. Capítulo no livro Guia das Empresas Certificadas. 11.<sup>a</sup> edição. Lisboa: Cem Palavras, 2016. (In Portuguese.)
7. **Reis, M.S.**, *Multivariate image analysis*. Ed. by Granato, D., Ares, G. *Mathematical and Statistical Methods in Food Science and Technology*. Chichester: Wiley-Blackwell, 2014, p. 201-218. ISBN: 978-1-118-43368-3.
8. **Reis, M.S.**, B.R. Bakshi, P.M. Saraiva, *Denoising and Signal to Noise Enhancement: Wavelet Transform and Fourier Transform*. Ed. by Brown, S.; Tauler, R.; Walczak, R.. *Comprehensive Chemometrics: Chemical and Biochemical Data Analysis*. Oxford: Elsevier, 2009, Vol. 2, p. 25-55.
9. **Reis, M.S.**, P.M. Saraiva, *Multivariate and Multiscale Data Analysis*. Editado por Coleman, S.; Greenfield, T.; Stewardson, D.; Montegomery, D.C.. *Statistical Practice in Business and Industry*, Statistics in Practice Series, Chichester: Wiley, 2008, p. 337-370.

### IV.4 Refereed Journal Publications and Publications in Book Series

1. Coutinho, J.P.L., L.O. Santos, M.S. Reis, *Bayesian Optimization for Automatic Tuning of Digital Multi-loop PID Controllers*. Chemometrics and Intelligent Laboratory Systems. Computers & Industrial Engineering. (2023). Accepted.

2. Dias, P.A.N., R.J. Rodrigues, M.S. Reis, *Fast Characterization of In-Plane Fiber Orientation at the Surface of Paper Sheets through Image Analysis*. Chemometrics and Intelligent Laboratory Systems. 234 (2023), art. 104761. DOI: 10.1016/j.chemolab.2023.104761.
3. Coutinho, J.P.L. M.S. Reis, D.F.M.G. Neves, F.P. Bernardo, *Robust Optimization and Data-Driven Modeling of Tissue Paper Packing considering Cargo Deformation*. Computers & Industrial Engineering. 175 (2022), art. 108898. DOI: 10.1016/j.cie.2022.108898.
4. Paredes, R., M.S. Reis, *Causal Network Inference and Functional Decomposition for Decentralized Statistical Process Monitoring: Detection and Diagnosis*. Chemical Engineering Science. 267 (2023), art. 118338. DOI: 10.1016/j.ces.2022.118338.
5. Reis, M.S., E. Strelet, J. Sansana, M.J. Quina, L.M. Gando-Ferreira, T.J. Rato, *A Federated Classification Approach of Waste Lubricant Oils in Geographically Distributed Laboratories*. Industrial & Engineering Chemistry Research. 61(48) (2022), p. 17544–17556. DOI: 10.1021/acs.iecr.2c02293.
6. Fernandes, N.C.P., T.J. Rato, M.S. Reis, *Modeling in the Observable or Latent Space? A Comparison of Dynamic Latent Variable based Monitoring Methods for Sensor Fault Detection*. Chemometrics and Intelligent Laboratory Systems. 231 (2022), art. 104684. DOI: 10.1016/j.chemolab.2022.104684.
7. Yang, W.-T., M.S. Reis, V. Borodin, M. Juge, A. Roussy, *An Interpretable Unsupervised Bayesian Network Model for Fault Detection and Diagnosis*. Control Engineering Practice. 127 (2022), art. 105304. DOI: 10.1016/j.conengprac.2022.105304.
8. Lordelo, R., J.R.S. Botelho, P.V. Morais, H.C. de Souza, R. Branco, A.M.A. Dias, M.S. Reis, *Evaluation of the microbiological effectiveness of three accessible mask decontamination methods and their impact on filtration, air permeability and physicochemical properties*. International Journal of Environmental Research and Public Health. 19(11) (2022), Article 6567. DOI: 10.3390/ijerph19116567. PMID: 35682153; PMCID: PMC9180249.
9. Duarte, B.P.M., A. Atkinson, S.P. Singh, M.S. Reis, *Optimal Design of Experiments for Hypothesis Testing on Ordered Treatments via Intersection-Union Tests*. Statistical Papers. XX (2022), Article XXX. DOI: 10.1007/s00362-022-01334-8.
10. Tomé, L.I.N., M.S. Reis, H.C. de Sousa, M.E.M. Braga, *Chitosan-Xanthan Gum PEC-based Aerogels: a Chemically Stable PEC in scCO<sub>2</sub> from the Screening of Natural Polyelectrolytes*. Materials Chemistry and Physics. 287 (2022), Article 126294. DOI: 10.1016/j.matchemphys.2022.126294.
11. Dias, T., R. Oliveira, P. Saraiva, M.S. Reis, *Linear and Non-Linear Soft Sensors for Predicting the Research Octane Number (RON) through Integrated Synchronization, Resolution Selection and Modelling*. Sensors. 22 (2022), Article 3374. DOI: 10.3390/s22103734.
12. Branco, S., J.G. Carvalho, M.S. Reis, Nuno V. Lopes, Jorge Cabral, *0-Dimensional Persistent Homology Analysis Implementation in Resource-Scarce Embedded Systems*. Sensors. 22 (2022), Article 3657. DOI: 10.3390/s22103657.
13. Reis, M.S., B. Jiang, *Predicting the Lifetime of Lithium-Ion Batteries: Integrated feature extraction and modeling through sequential Unsupervised-Supervised Projections (USP)*. Chemical Engineering Science. 252 (2022), Article 117510. DOI: 10.1016/j.ces.2022.117510.
14. Reis, M.S., P.M. Saraiva, *Data-Driven Process Systems Engineering: Contributions to its consolidation following the path laid down by George Stephanopoulos*. Computers & Chemical Engineering. 159 (2022), Article 107675. DOI: 10.1016/j.compchemeng.2022.107675.

15. Barbosa, C., E. Ramalhosa, I. Vasconcelos, M.S. Reis, A. Mendes-Ferreira, *Machine Learning Techniques Disclosure the Combined Effect of Fermentation Conditions on Yeast Mixed-Culture Dynamics and Wine Quality.* Microorganisms. 10(1), 107 (2022), p. 1-20. DOI: 10.3390/microorganisms10010107.
16. Sancho, A., J. C. Ribeiro, M.S. Reis, F.G. Martins, *Cluster Analysis of Crude Oils with k-means based on their Physicochemical Properties.* Computers & Chemical Engineering. 157 (2021), Article 107633. DOI: 10.1016/j.compchemeng.2021.107633.
17. Gomes, V., R. Rendall, M.S. Reis, A. Mendes-Ferreira, P. Melo-Pinto, *Determination of sugar, pH and anthocyanin contents in Port wine grape berries through Hyperspectral Imaging: An Extensive Comparison of Linear and Non-linear Predictive Methods.* Applied Sciences. 11(21), 10319 (2021), p. 1-25. DOI: 10.3390/app112110319.
18. Reis, M.S., P.M. Saraiva, *Data-Centric Process Systems Engineering: a Push Towards PSE 4.0.* Computers & Chemical Engineering. 155 (2021), Article 107529. DOI: 10.1016/j.compchemeng.2021.107529.
19. Gomes, V., M.S. Reis, F. Rovira-Más, A. Mendes-Ferreira, P. Melo-Pinto, *Prediction of sugar content in Port wine vintage grapes using machine learning and hyperspectral imaging.* Processes. 9(7), 1241 (2021), p. 1-16. DOI: 10.3390/pr9071241.
20. Dias, T., R. Oliveira, P.M. Saraiva, M.S. Reis, *Forecasting the Research Octane Number in a Continuous Catalyst Regeneration (CCR) Reformer.* Quality and Reliability Engineering International. (2021), p. 1-19. DOI: 10.1002/qre.2968.
21. De Souza, D.C.M., L. Cabrita, C.F. Galinha, M.S. Reis, *PAT soft sensors for wide range prediction of key properties of diesel fuels and blending components for the oil industry.* Computers & Chemical Engineering. 153 (2021), Article 107449. DOI: 10.1016/j.compchemeng.2021.107449.
22. Reis, M.S., R. Rendall, T. J. Rato, C. Martins, P. Delgado, *Improving the Sensitivity of Statistical Process Monitoring of Manifolds Embedded in High-Dimensional Spaces: the truncated-Q Statistic.* Chemometrics and Intelligent Laboratory Systems. 215 (2021), art. 104369. DOI: 10.1016/j.chemolab.2021.104369.
23. Sansana, J., M.N. Joswiak, I. Castillo, Z. Wang, R. Rendall, L.H. Chiang, M.S. Reis, *Recent trends on hybrid modeling for Industry 4.0.* Computers & Chemical Engineering. 151 (2021), Article 107365. DOI: 10.1016/j.compchemeng.2021.107365.
24. Soccio, A., J.P. Barbosa, M.S. Reis, *A Scalable Approach for the Efficient Segmentation of Hyperspectral Images.* Chemometrics and Intelligent Laboratory Systems. 213 (2021), art. 104314. DOI: 10.1016/j.chemolab.2021.104314.
25. De Souza, D.C.M., L. Cabrita, C.F. Galinha, T.J. Rato, M.S. Reis, *A Spectral AutoML Approach for Industrial Soft Sensor Development: Validation in an Oil Refinery Plant.* Computers & Chemical Engineering. 150 (2021), Article 107324. DOI: 10.1016/j.compchemeng.2021.107324.
26. Cubo, C., P.M. Saraiva, P. Sampaio, M.S. Reis, *2017 World State of Quality: first worldwide results.* Total Quality Management & Business Excellence. 32(3-4) (2021). DOI: 10.1080/14783363.2019.1575722.
27. Reis, M.S., Discussion: *Process Data Streams Aggregation vs Product Samples Aggregation.* Journal of Quality Technology. 53(1) (2021), p. 33-37. DOI: 10.1080/00224065.2019.1611357.
28. Rato, T.J., P. Delgado, C. Martins, M.S. Reis, *First Principles Statistical Process Monitoring of High-Dimensional Industrial Microelectronics Assembly Processes.* Processes. 8:11 (2020), p. 1520. DOI: 10.3390/pr8111520.

29. Rato, T.J., M.S. Reis, *An Integrated Multiresolution Framework for Quality Prediction and Process Monitoring in Batch Processes*. *Journal of Manufacturing Systems*. 57 (2020), p. 198-216. DOI: 10.1016/j.jmsy.2020.09.007.
30. Martins, M.F., A. Honório-Ferreira, M.S. Reis, C. Cortez-Vaz, C.A. Gonçalves, *Sialic acids expression in newborn rat lungs: implications for pulmonary developmental biology*. *Acta Histochemica*. 122:8 (2020), Artilce 151626. DOI: 10.1016/j.acthis.2020.151626.
31. Correia, A.A.S, L. Lopes, M.S. Reis, *Advanced Predictive Modelling applied to the Chemical Stabilization of Soft Soils*. *Geotechnical Engineering*. (2020), p. 1-11. DOI: 10.1680/jgeen.19.00295.
32. Del Castillo, E., M.S. Reis, *Bayesian Predictive Optimization of Profiles and Multi-Response Systems in the Process Industry: a Review and Extensions*. *Chemometrics and Intelligent Laboratory Systems*. 206 (2020), art. 104121. DOI: 10.1016/j.chemolab.2020.104121.
33. Rato, T.J., D. Neves, A. Antunes, M.S. Reis, *A Systematic PAT Soft Sensor Screening and Development Methodology applied to the Prediction of Free Fatty Acids in Industrial Biodiesel Production*. *Fuel*. 282 (2020), Article 118800. DOI: 10.1016/j.fuel.2020.118800.
34. Dias, T., R. Oliveira, P.M. Saraiva, M.S. Reis, *Predictive Analytics in the Petrochemical Industry: Research Octane Number (RON) forecasting and analysis in an Industrial Catalytic Reforming Unit*. *Computers & Chemical Engineering*. 139 (2020), Article 106912. DOI: 10.1016/j.compchemeng.2020.106912.
35. Martins, M.F., M.S. Reis, A. Honório-Ferreira, C.A. Gonçalves, *Presence of N-acetylneurameric acid in the lung during postnatal development*. *European Journal of Histochemistry*. 64:3124 (2020), p. 148-155. DOI: 10.4081/ejh.2020.3124.
36. Yang, W.-T., J. Blue, A. Roussy, Pinaton, J.; M.S. Reis, *A Physics-Informed Run-to-Run Control for Semiconductor Manufacturing*. *Expert Systems with Applications*. 155 (2020), p. 113424. DOI: 10.1016/j.eswa.2020.113424.
37. Lourenço, A., M.S. Reis, J. Arnold, M.G. Rasteiro, *Data-driven modelling of the complex interaction between flocculant properties and floc size and structure*. *Processes*. 8(3), (2020), art. 349. DOI: 10.3390/pr8030349.
38. Vieira, A.C., A.C. Pereira, J.C. Marques, **M.S. Reis**, *Multi-target optimization of solid phase microextraction to analyse key flavour compounds in wort and beer*. *Food Chemistry*. 317, (2020), art. 126466. DOI: 10.1016/j.foodchem.2020.126466.
39. Campos, M.P., **M.S. Reis**, *Data Preprocessing for Multiblock Modelling – A Systematization with New Methods*. *Chemometrics and Intelligent Laboratory Systems*. 199 (2020), art. 103959. DOI: 10.1016/j.chemolab.2020.103959.
40. Sansana, J., R. Rendall, Z. Wang, L.H. Chiang, **M.S. Reis**, *Sensor Fusion with Irregular Sampling and Varying Measurement Delays*. *Industrial & Engineering Chemistry Research*. (2020). Accepted. DOI: 10.1021/acs.iecr.9b05105.
41. Grangeia, H.B., C. Silva, S.P. Simões, **M.S. Reis**, *Quality by Design in Pharmaceutical Manufacturing: A Systematic Review of Current Status, Challenges and Future Perspectives*. *European Journal of Pharmaceutics and Biopharmaceutics*. 147 (2019), p. 19-37. DOI: 10.1016/j.ejpb.2019.12.007.
42. **Reis, M.S.**, Discussion of: Industrial Statistics and Manifold Data. *Quality Engineering*. (2019). Accepted.

43. Yang, W.-T., J. Blue, A. Roussy, Pinaton, J.; **M.S. Reis**, *A Structure Data Driven Framework for Virtual Metrology Modeling*. IEEE Transactions on Automation Science and Engineering. (2019), p. 1-10. DOI: 10.1109/TASE.2019.2941047.
44. Fernandes, N.C.P., A. Romanenko, **M.S. Reis**, *Mechanistic Modeling and Simulation for Process Data Generation*, Industrial & Engineering Chemistry Research. 58(38) (2019), p. 17871-17884. DOI: 10.1021/acs.iecr.9b01752.
45. Rato, T.J., **M.S. Reis**, *Optimal Fusion of Industrial Data Streams with Different Granularities*. Computers & Chemical Engineering. 130 (2019), p. 106564. DOI: 10.1016/j.compchemeng.2019.106564.
46. **Reis, M.S.**, R. Rendall, B. Palumbo, A. Lepore, C. Capezza, *Predicting Ships' CO<sub>2</sub> Emissions using Feature-Oriented Methods*. Applied Stochastic Models in Business and Industry. XXX (2019), p. XX-XX. DOI: 10.1002/asmb.2477.
47. Rato, T.J., **M.S. Reis**, SS-DAC: *A Systematic Framework for Selecting the Best Modelling Approach and Pre-processing for Spectroscopic Data*. Computers & Chemical Engineering. 128 (2019), p. 437-449. DOI: 10.1016/j.compchemeng.2019.05.036.
48. Rato, T.J., **M.S. Reis**, *Multiresolution Interval Partial Least Squares: A Framework for Waveband Selection and Resolution Optimization*. Chemometrics and Intelligent Laboratory Systems. (2019). DOI: 10.1016/j.chemolab.2019.02.002.
49. Cubo, C., P.M. Saraiva, P. Sampaio, **M.S. Reis**, *2017 World State of Quality: first worldwide results*. Total Quality Management & Business Excellence (2019). DOI: 10.1080/14783363.2019.1575722.
50. **Reis, M.S.**, *Multiscale and Multi-granularity Process Analytics: A Review*. Processes. 61, 7(2), (2019), p. 1-21. DOI: <https://doi.org/10.3390/pr7020061>.
51. Rendall, R., L.H. Chiang, **M.S. Reis**, *Data-driven Methods for Batch Data Analysis – A Critical Overview and Mapping on the Complexity Scale*. Computers and Chemical Engineering. (2019). Accepted.
52. **Reis, M.S.**, *An Advanced Data-Centric Multi-Granularity Platform for Industrial Data Analysis*. Computer-Aided Chemical Engineering. 46 (2019), p. 1225-1230. DOI: 10.1016/B978-0-12-818634-3.50205-8.
53. **Reis, M.S.**, A. C. Pereira, J.M. Leça, P.M. Rodrigues, J.M. Marques, *Multi-Response and Multi-Objective Latent Variable Optimization of Modern Analytical Instrumentation for the Quantification of Chemically Related Families of Compounds: Case study - Solid Phase Microextraction (SPME) applied to the Quantification of Analytes with Impact on Wine Aroma*. Journal of Chemometrics. (2018). DOI: 10.1002/cem.3103.
54. Rendall, R., I. Castillo, A. Schmidt, S.-T. Chin, L.H. Chiang, **M.S. Reis**, *Wide Spectrum Feature Selection (WiSe) for Regression Model Building*. Computers and Chemical Engineering. DOI: 10.1016/j.compchemeng.2018.10.005.
55. Santos, C.P., T.J. Rato, **M.S. Reis**, *Design of Experiments: A Comparison Study from the Non-Expert User's Perspective*. Journal of Chemometrics. (2018). (Accepted). DOI: 10.1002/cem.3087.
56. Rendall, R., **M.S. Reis**, *Which Regression Method to Use? Making Informed Decisions in “Data-Rich/Knowledge Poor” Scenarios – the Predictive Analytics Comparison framework (PAC)*. Chemometrics and Intelligent Laboratory Systems. 181 (2018), p. 52-63. DOI: 10.1016/j.chemolab.2018.08.004.

57. Rato, T.J., **M.S. Reis**, *Optimal Selection of Time Resolution for Batch Data Analysis. Part I: Predictive Modelling*. AIChE J. 64 (2018), p. 3923-3933. DOI: 10.1002/aic.16361.
58. Rendall, R., I. Castillo, B. Lu, B. Colegrove, M. Broadway, L. Chiang, **M.S. Reis**, *Image-based manufacturing analytics: Improving the accuracy of an industrial pellet classification system using deep neural networks*. Chemometrics and Intelligent Laboratory Systems. 180 (2018), p. 26-35. DOI: 10.1016/j.chemolab.2018.07.001.
59. Pereira, A.C., **M.S. Reis**, J.M. Leça, P.M. Rodrigues, J.M. Marques, *Definitive Screening Designs and Latent Variable Modelling for the Optimization of Solid Phase Microextraction (SPME): Case study - Quantification of Volatile Fatty Acids in Wines*. Chemometrics and Intelligent Laboratory Systems. 179 (2018), p. 73-81. DOI: 10.1016/j.chemolab.2018.06.010
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61. Lopes. A.L.C.V., A.F.G. Ribeiro, **M.S. Reis**, D.C.M. Silva, I. Portugal, C.M.S.G. Baptista. *Distribution models for nitrophenols in a liquid-liquid system*. Chemical Engineering Science. Accepted (2018), p. 266-276. DOI: doi.org/10.1016/j.ces.2018.04.056
62. Rato, T.J., **M.S. Reis**, *Building Optimal Multiresolution Soft Sensors for Continuous Processes*. Industrial & Engineering Chemistry Research. Accepted (2018).
63. Rato, T.J., R. Rendall, V. Gomes, P.M. Saraiva, **M.S. Reis**, *A Systematic Methodology for Comparing Batch Process Monitoring Methods: Part II – Assessing Detection Speed*. Industrial & Engineering Chemistry Research. 57(15) (2018), p. 5338-5350.
64. Campos, M.P., R. Sousa, **M.S. Reis**, *Establishing the Optimal Blocks' Order in SO-PLS: Stepwise SO-PLS and Alternative Formulations*. Journal of Chemometrics. Accepted (2018).
65. Saraiva, P.M., C. Cubo, P. Sampaio, **M.S. Reis**, *World State of Quality and the European Quality Scoreboard: a new approach to measure “macroquality” and results obtained*. Quality Progress. (2018). Accepted.
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67. Geert, G., J. Van Impe, **M.S. Reis**, *Finding the optimal time resolution for batch-end quality prediction: MRQP – a framework for Multi-Resolution Quality Prediction*. Chemometrics and Intelligent Laboratory Systems. 172 (2018), p. 150-158.
68. **Reis, M.S.**, G. Gins, T.J. Rato, *Incorporation of Process-Specific Structure in Statistical Process Monitoring: a Review*. Journal of Quality Technology. (2018). Accepted.
69. **Reis, M.S.**, *Incorporating Systems Structure in Data-Driven High-Dimensional Predictive Modeling*. Computer-Aided Chemical Engineering. 43 (2018), p. 1039-1044.
70. Rendall, R., B. Lu, I. Castillo, S.-T. Chin, L. H. Chiang, **M.S. Reis**, *A Unifying and Integrated Framework for Feature Oriented Analysis of Batch Processes*. Industrial & Engineering Chemistry Research. 56 (30) (2017), p. 8590-8605. dx.doi.org/10.1021/acs.iecr.6b04553
71. **Reis, M.S.**, G. Gins, *Industrial Process Monitoring in the Big Data/Industry 4.0 Era: From Detection, to Diagnosis, to Prognosis. Processes*. 5(3), 35, (2017), p.1-16. doi: 10.3390/pr5030035.

72. Silva, B.M.A., S. Vicente, S. Cunha, J.F.J. Coelho, C. Silva, **M.S. Reis**, S. Simões, *Retrospective Quality by Design (rQbD) applied to the Optimization of Orodispersible Films*. International Journal of Pharmaceutics. 528 (1-2) (2017), p. 655-663. doi.org/10.1016/j.ijpharm.2017.06.054.
73. Rendall, R., B. Lu, I. Castillo, S.-T. Chin, L. Chiang, **M.S. Reis**, *Profile-driven Features for Offline Quality Prediction in Batch Processes*. Computer-Aided Chemical Engineering. (2017). Accepted.
74. Rato, T.J., **M.S. Reis**, *Improved Fault Diagnosis in Online Process Monitoring of Complex Networked Processes: a Data-Driven Approach*. Computer-Aided Chemical Engineering. (2017). Accepted.
75. Lopes, A., A. Ribeiro, **M.S. Reis**, D.C.M. Silva, I. Portugal, C.M.S.G. Baptista, *Modelling the Distribution of Nitrophenols in a Liquid-Liquid System Representative of an Industrial Nitration Process*. Chemical Engineering Transactions. 57 (2017), p. 1033-1038.
76. Lepore, A., B. Palumbo, C. Capezza, R. Rendall, **M.S. Reis**, *A Comparison of Advanced Regression Techniques for Predicting Ship CO<sub>2</sub> Emissions*. Quality and Reliability Engineering International. (2017). DOI: 10.1002/qre.2171.
77. Campos, M., R. Sousa, A.C. Pereira, **M.S. Reis**, *Advanced Predictive Methods for Wine Age Prediction: Part II - A Comparison Study of Multiblock Regression Approaches*. Talanta. 171 (2017), p. 132-142.
78. Rendall, R., A.C. Pereira, **M.S. Reis**, *Advanced Predictive Methods for Wine Age Prediction: Part I - A Comparison Study of Single-Block Regression Approaches based on Variable Selection, Penalized Regression, Latent Variables and Tree-based Ensemble Methods*. Talanta. 171 (2017), p. 341-350.
79. Rato, T.J., J. Blue, J. Pinaton, **M.S. Reis**, *Translation Invariant Multiscale Energy-based PCA for Monitoring Batch Processes in Semiconductor Manufacturing*. IEEE – Transactions on Automation Science and Engineering. 14(2) (2017), p. 894-904. DOI: 10.1109/TASE.2016.2545744.
80. Pinheiro, C.T., V. Ascensão, **M.S. Reis**, M.J. Quina, L. M. Gando-Ferreira, *A data-driven approach for the study of coagulation phenomena in waste lubricant oils and its relevance in alkaline regeneration treatments*. Science of the Total Environment. 599-600 (2017), p. 2054-2064.
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  72. **Reis, M.S.**, R.S. Rendall, *A Comparison Study of On-line Data-driven and Model-based Denoising Methodologies*. Comunicação oral apresentada no congresso “ENBIS13 – 13th Annual ENBIS Conference”, realizado em Ankara (Turquia), entre 15-19 de Setembro de 2013, cujo resumo se inclui nas actas em suporte de papel (p. 54) e o respectivo artigo no CD-ROM da conferência.
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117. **M.S. Reis**, *Multivariate Class Prediction in Gene Expression Data*. Presented at “ENBIS8 – Eight Annual ENBIS Conference”, Athens (Greece), 21-25 September 2008.
118. **M.S. Reis**, Bauer, A. — *On-line Monitoring and Classification of Paper Formation using Image Analysis*. Presented at “ENBIS8 – Eight Annual ENBIS Conference”, Athens (Greece), 21-25 September 2008.

119. Pereira, A.C., **M.S. Reis**, J.S. Câmara, P.M. Saraiva, J.C. Marques, *Application of Chemometrics Techniques to Identify and Analyze Ageing Patterns in Madeira Wine*. Presented at “12<sup>as</sup> Jornadas de Análisis Instrumental”, Barcelona (Spain), 21-23 October 2008.
120. **Reis, M.S**, *Combining Predictions at Multiple Scales for Process Modelling*. Presented at CHEMPOR 2008 “10<sup>th</sup> International Chemical and Biological Engineering Conference”, Braga, 4 - 6 de September 2008.
121. **Reis, M.S** — *Multivariate Analysis of DNA Microarrays*. Presented at CHEMPOR 2008 “10<sup>th</sup> International Chemical and Biological Engineering Conference”, Braga, 4 - 6 de September 2008.
122. Pereira, A.C., **M.S. Reis**, P.M. Saraiva, J.C. Marques — *Using GC-MS and Multivariate Statistics to Safeguard the Identity of Madeira Wine: a Preliminary Study*. Presented at CHEMPOR 2008 “10<sup>th</sup> International Chemical and Biological Engineering Conference”, Braga, 4 - 6 de September 2008.
123. Portugal, P.A.G., **M.S. Reis**, C.M.S.G. Baptista, *Multiobjective Optimization of the Benzene Nitration Process*. Presented at CHEMPOR 2008 “10<sup>th</sup> International Chemical and Biological Engineering Conference”, Braga, 4 - 6 de September 2008.
124. Dias, P.A.N., **M.S. Reis**, M.H. Gil, J.C. Alves, *Development of Semi-Transparent Wood Polymer Composites*. Presented at CHEMPOR 2008 “10<sup>th</sup> International Chemical and Biological Engineering Conference”, Braga, 4 - 6 de September 2008.
125. **Reis, M.S.**, P.M. Saraiva, *Multivariate and Multiscale Supervised Analysis of the Paper Surface*. Presented at COMPSTAT’2008 “International Conference on Computational Statistics”, Porto, 24 - 29 August 2008.
126. Pereira, A.C., **M.S. Reis**, P.M. Saraiva, J.C. Marques, *Analyzing Madeira Wine Ageing through Contribution Plots Taking into Account Cluster Variability*. Presented at COMPSTAT’2008 “International Conference on Computational Statistics”, Porto, 24 - 29 August 2008.
127. **Reis, M.S.**, P.M. Saraiva, *Flexible Multiscale Data-Driven Modelling*. Presented at FOCAPO 2008, “FIFTH INTERNATIONAL CONFERENCE ON FOUNDATIONS OF COMPUTER AIDED PROCESS OPERATIONS”, Cambridge, Massachusetts (E.U.A), 29 de June - 2 de July 2008.
128. Pereira, A.C., P.M. Saraiva, J.S. Câmara, **MS Reis**, Marques, J.C., *Multivariate Statistical Analysis of Major Volatiles Found in Madeira Wines*. Presented at “5º Encontro nacional de Cromatografia da SPQ”, Aveiro, 10 - 12 December 2007.
129. **Reis, M.S.**, P.M. Saraiva, *Controlo Estatístico Multiescala*. Poster apresentado no “32º Colóquio da Qualidade”, realizado no Funchal, entre 8 e 9 de Novembro de 2007.
130. Pereira, A.C., P.M. Saraiva, **Reis, M.S.**, Marques, J.C., *Análise da Qualidade do Vinho da Madeira*. Presented at “32º Colóquio da Qualidade”, Funchal, 8 - 9 November 2007.
131. Pereira A.C., V. Pereira, P.M. Saraiva, J.S. Câmara, **M.S. Reis**, J.C. Marques, *Differentiation of Liqueur Wines Based on the Aromatic Profiles*; Presented at “EuroAnalysis 2007”, Antwerp (Belgium), 9 - 14 September.
132. Pereira A.C., V. Pereira, P.M. Saraiva, J.S. Câmara, **M.S. Reis**, J.C. Marques, *Use Statistical Analysis in the Differentiation of Wines From Madeira and Canary Island*; Presented at “EuroAnalysis 2007”, Antwerp (Belgium), 9 - 14 September.

133. **Reis, M.S.**, P.M. Saraiva, F.P. Bernardo, *Integrating Data and Model Uncertainties in Paint Formulations*. Presented at “Seventh Annual ENBIS Conference”, realizado em Dortmund (Alemanha), 24 - 26 September 2007.
134. **Reis, M.S.**, C.T. Abreu, M.J. Heitor, J. Ataíde, P.M. Saraiva, *A New Procedure for Measuring Diagonal Curl*. Presented at “XX Encontro Nacional da Tecnicelpa”, Tomar, 10 - 12 October 2007.
135. **Reis, M.S.**, *Multiscale Analysis of Time Series*. Presented at “International Symposium on Business and Industrial Statistics – 2007”, São Miguel (Açores), 18 - 20 de August 2007.
136. **Reis, M.S.**, B.R. Bakshi, P.M. Saraiva, *Multiscale Statistical Process Control of Continuous Processes*. Presented at “Sixth Annual ENBIS Conference”, Wroclaw (Poland), 18 - 20 September 2006.
137. Pereira, A., **M.S. Reis**, P.M. Saraiva, *Quality Control of Food Products using Image Analysis and Statistical Tools*. Presented at “Sixth Annual ENBIS Conference”, Wroclaw (Poland), 18 - 20 September 2006.
138. Saraiva, P.M., **M.S. Reis**, F.P. Bernardo, *Robust Approaches to Formulation Problems: A Paints Industry Application*. Presented at M2D’2006, “5TH INTERNATIONAL CONFERENCE – MECHANICS AND MATERIALS IN DESIGN”, Porto (Portugal), 24 - 26 de July 2006.
139. **Reis, M.S.**, P.M. Saraiva, *Multiscale Analysis and Monitoring of Paper Surface*. Presented at ESCAPE-16 + PSE’2006, “16<sup>TH</sup> EUROPEAN SYMPOSIUM ON COMPUTER AIDED PROCESS ENGINEERING AND 9<sup>TH</sup> INTERNATIONAL SYMPOSIUM ON PROCESS SYSTEMS ENGINEERING”, Garmisch-Partenkirchen (Germany), 9 - 13 July 2006.
140. **Reis, M.S.**, P.M. Saraiva, *Multiscale SPC in the Presence of Multiresolution Data*. Presented at ESCAPE-16 + PSE’2006, “16<sup>TH</sup> EUROPEAN SYMPOSIUM ON COMPUTER AIDED PROCESS ENGINEERING AND 9<sup>TH</sup> INTERNATIONAL SYMPOSIUM ON PROCESS SYSTEMS ENGINEERING”, Garmisch-Partenkirchen (Germany), 9 - 13 July 2006.
141. **Reis, M.S.**, P.M. Saraiva, *Multivariate and Multiscale Analysis of Paper Surface*. Presented at “CHEMPOR’2005, 9<sup>th</sup> International Chemical Engineering Conference”, Coimbra (Portugal), September 2005.
142. Quadros, P.A., **M.S. Reis**, C. M. S. G. Baptista, *Multivariate Analysis of the Benzene Nitration Process for Pollution Prevention*. Presented at “CHEMPOR’2005, 9<sup>th</sup> International Chemical Engineering Conference”, Coimbra (Portugal), September 2005.
143. **Reis, M.S.**, P.M. Saraiva, *Multiscale Approach for the Monitoring of Paper Surface Profiles*. Presented at “5<sup>th</sup> Annual Meeting of ENBIS”, Newcastle (England), September 2005.
144. **Reis, M.S.**, P.M. Saraiva, *Multiscale Statistical Process Control of the Paper Surface*. Presented at “Gordon Research Conference on Statistics in Chemistry and Chemical Engineering”, South Hadley (MA, EUA), July de 2005.
145. Quadros, P.A., P. Francisco, **M.S. Reis**, C. M. S. G. Baptista, *Multivariate Analysis Applied to the Benzene Nitration Process*. Presented at “7<sup>th</sup> World Congress of Chemical Engineering”, realizado em Glasgow (Scotland), July 2005.
146. Quadros, P.A., **M.S. Reis**, C. M. S. G. Baptista, *Different Modelling Approaches for a Heterogeneous Liquid-Liquid Reaction Process*. Presented at “5<sup>th</sup> International Symposium on Catalysis in Multiphase Reactors & 4<sup>th</sup> International Symposium on Multifunctional Reactors (CAMURE-5 & ISMR-4)”, Portorož-Portorose (Slovenia), June 2005.

147. **Reis, M.S.**, P.M. Saraiva, *Integrating Data Uncertainty in Multiresolution Analysis*. Presented at “ESCAPE-15, EUROPEAN SYMPOSIUM ON COMPUTER AIDED PROCESS ENGINEERING”, Barcelona (Spain), 29 May - 1 June 2005.
148. Angélico, D., **M.S. Reis**, R. Costa, P.M. Saraiva, J. Ataíde, *Profilometry: A Technique to Characterize Paper Surface*. Presented at “Tecnicelpa – XIX Encontro Nacional”, Tomar (Portugal), Abril de 2005.
149. **Reis, M.S.**, P.M. Saraiva, *A Comparative Study of the Performance of Various Linear Regression Methods in Noisy Environments*. Presented at “CAC-2004 Chemometrics in Analytical Chemistry”, Lisboa (Portugal) Setembro 2004.
150. Costa, R., D. Angélico, P.M. Saraiva, **M.S. Reis**, J. Ataíde, C. Abreu, D. Bogas, *Paper Superficial Waviness: Conception of a Statistical Measurement System*. Presented at “CAC-2004 Chemometrics in Analytical Chemistry”, realizado em Lisboa (Portugal) September 2004.
151. **Reis, M.S.**, P.M. Saraiva, *Accounting for Measurement Uncertainties in Industrial Data Analysis*. Presented at “ESCAPE-14, EUROPEAN SYMPOSIUM ON COMPUTER AIDED PROCESS ENGINEERING”, Lisboa (Portugal), 16 - 19 May 2004.
152. **Reis, M.S.**, P.M. Saraiva, *Multiscale Latent Variable Analysis of Industrial Data*. Presented at “PROCESS SYSTEMS ENGINEERING 2003”, Kunming (China), January 2004.
153. **Reis, M.S.**, P.M. Saraiva, *Practical Approaches for Conducting MSPC in Noisy Environments*. Presented at “PLS AND RELATED METHODS”, Lisboa (Portugal), 15 - 17 de September 2003.
154. Telmo, R., **M.S. Reis**, P.M. Saraiva, P. Gonçalves, A. Henriques, *PVC Quality Monitoring Through Statistical Reasoning*. Presented at “3<sup>rd</sup> Annual Meeting of ENBIS and ISIS3”, Barcelona (Spain), August 2003.
155. **Reis, M.S.**, P.M. Saraiva, R. Costa, D. Bogas, C.T. Abreu, J. Ataíde, *Application of Advanced Statistical Tools to the Analysis of Pulp and Paper Data*. Presented at “28<sup>th</sup> EUCEPA conference”, Lisboa 2-4 April 2003.
156. **Reis, M.S.**, P.M. Saraiva, *Application of Multiscale Strategies to Industrial Process Data Analysis*. Presented at “2<sup>nd</sup> Annual ENBIS Conference”, Rimini (Italy), September 2002.
157. **Reis, M.S.**, P.M. Saraiva, *Multiscale Systems Modelling and Identification*. Presented at “2002 AIChE Annual Meeting”, Indianapolis (EUA), November 2002.
158. **Reis, M.S.**, P.M. Saraiva, *A Structured Approach for Reducing Paper Curl: Modelling Strategies and Simulation Results*, Presented at “CHEMPOR’2001 - 8<sup>th</sup> International Chemical Engineering Conference”, Aveiro, 12 - 14 September 2001.
159. **Reis, M.S.**, P.M. Saraiva, *Aplicação de Metodologias Multiescala na Melhoria de Processos Através da Filtragem, Interpretação e Compressão de Dados Operatórios*. 1º Congresso Nacional da Qualidade. Lisboa: Instituto Português da Qualidade (2000).
160. **Reis, M.S.**, P.M. Saraiva, J. Ataíde — *Um Modelo Conceptual para Estudo da Estabilidade Dimensional do Papel*. Presented at “CHEMPOR’98 – 7<sup>a</sup> Conferência Internacional de Engenharia Química”, Lisboa (Portugal), 26 - 28 de September 1998.

#### **IV.6 Other Publications**

161. **Reis, M.S.**, *A Structured Approach for Reducing Paper Curl: Modelling Strategies and Simulation Results*. Department of Chemical Engineering, University of Coimbra (2001). Technical Report.
162. **Reis, M.S.**, *Perfil Transversal de Propriedades Relevantes na PMI*. Lavos, Figueira da Foz: Soporcet, SA (1997). Technical Report.
163. **Reis, M.S.**, *Análise da Concorrência: uma Abordagem Baseada na Aplicação de Técnicas de Agrupamento e Índices de Qualidade*. Lavos, Figueira da Foz: SOPORCEL, SA (1996). Technical Report.
164. **Reis, M.S.** — *Sistemas de Detecção e Diagnóstico de Falhas em Processos Industriais*. Department of Chemical Engineering, University of Coimbra: Coimbra (1995).
165. **Reis, M.S.**, Santos, I.J.G., Santos, I.C. — *Projecto de uma Unidade Industrial para Produção de Dissulfureto de Carbono*. Department of Chemical Engineering, University of Coimbra: Coimbra (1995).

#### **IV.7 Keynotes and Invited Talks**

- **Reis, M.S.**, Structured Approaches for Data-Driven Process Improvement, Keynote presented at Advances in Process Analytics and Control Technology 2022 Conference (APACT 2022), Chester (UK), 14-16 September 2022.
- **Reis, M.S.**, Incorporating Expert Knowledge and System Structure in High-Dimensional Statistical Process Monitoring. Keynote presented at Scandinavian Symposium on Chemometrics (SSC17), Aalborg (Denmark), 6-9 September 2021.
- Principal Discussant for the keynote by Prof. Enrique del Castillo, on Process Monitoring, at the Stu Hunter Research Conference Milan (Italy) 18-20 February 2019..
- **Reis, M.S.**, *Current Challenges in Online and Offline Data-Driven Process Improvement*. Keynote presented at the Workshop on Data Processing and Data Analysis for Quality Management and Quality Improvement, Open University of Israel, Raanana (Israel), January 11, 2017.
- **Reis, M.S.**, *Current Challenges in Online and Offline Data-Driven Process Improvement*. Seminar presented the Industrial Engineering Department, Tel Aviv University, Telavive (Israel), January 12, 2017.
- **Reis, M.S.**, *Emerging Trends in Statistical Process Control of Industrial Processes*. Keynote presented at 2<sup>nd</sup> International Conference on Quality Engineering and Management. Guimarães, July 14-15, 2016.
- **Reis, M.S.**, Large-Scale Industrial Process Monitoring. Seminar at École Nationale Supérieure des Mines de Saint-Étienne (Gardanne, France), May 11, 2016.
- **Reis, M.S.**, *Design and Analysis of Physical and Computational Experiments in Chemical Engineering*. Presented at SAS® Fórum Portugal 2015, Centro de Congressos de Lisboa, November 10, 2015.

- **Reis, M.S.**, *Challenges in the Specification and Integration of Measurement Uncertainty in the Chemical Processing Industry*. Seminar DOW Chemical Company, Freeport (Texas, USA), April 30, 2015.
- **Reis M.S.**, *Process monitoring of large scale systems*. Presented at “45e Journées de Statistique”. Toulouse (France), 27-31 May 2013.
- **Reis M.S.**, *Scale-dependent extraction of features from multivariate images of random structures*. Presented at “II International Workshop on Multivariate Image Analysis”. Valencia (Spain), 23-24 May 2013.
- **Reis, M.S.**, *Profiles as Outputs in Supervised Data Analysis*. Presented at “ISBIS-2010, INTERNATIONAL SYMPOSIUM ON BUSINESS AND INDUSTRIAL STATISTICS”, Portoroz (Slovenia), 5-9 July 2010.
- **Reis, M.S.**, *Tratamento de Dados em Química*. Workshop on “Validação de Métodos Analíticos e Determinação da Incerteza Associada”, Funchal, 7 May 2010.
- **Reis, M.S.**, *Multiscale Analysis of Time Series*. Palestra proferida no “International Symposium on Business and Industrial Statistics – 2007”, durante o encontro anual da “International Society for Business and Industrial Statistics” (ISBIS) realizado na Universidade doa Açores, pólo de São Miguel (Açores), de 18 a 20 de Agosto de 2007, cujo resumo se inclui nas actas em suporte de papel (p. 125-126).
- **Reis, M.S.**, *Multiscale Data-Driven Analysis in the Length and Time Domains*. Palestra proferida para o grupo de investigação “Sustainable and Efficient Process Engineering Group”, do Chemical Engineering Department, Ohio State University, em Julho de 2005.
- **Reis, M.S.**, *Multiscale Approaches in Statistical Process Control*. Palestra proferida na sessão especial denominada “Applied Statistics in Practice”, a qual foi organizada pela “Quality Improvement Section” da Royal Statistical Society (RSS), durante o encontro anual da RSS realizado em Belfast, de 10 a 14 de Setembro de 2006.

## V. Supervision of R&D&I Activities

### V.1 PhD students

- Tiago Miguel Janeiro Rato, *Development of integrated data-driven frameworks for the monitoring, analysis and control of complex systems*. (2014)
- Ricardo Alberto Reis Silva Rendall, *Batch Process Monitoring and Quality Prediction: Development of Coarse-Grained Data-Driven Methodologies*. (2019)
- Yang Wei-Ting, *Advanced Control of Semiconductor Manufacturing Processes with Real-time Equipment Condition Monitoring*. Co-supervisor. (2020)
- Maria Campos, *Multiblock methods for handling complex and heterogeneous data structures in industry*.
- Tiago Alexandre Garcia Dias, *Desenvolvimento de Inferenciais de RON para unidades de reformação catalítica semi-reginarativa e contínua*. Supervisor. Ongoing.
- Daniela Carla Moreira de Souza, *Desenvolvimento de sensores inferenciais para a previsão de propriedades relevantes em gasolinas e gasóleos*. Supervisor. Ongoing.

- Eugenio Strelet, *A Multipurpose Framework for Heterogeneous Sensor Fusion in Big Data Industrial Environments*. [Project acronym: D-Fusion]. Supervisor. Ongoing.
- Joel Sansana, *Parsimonious Integration of Knowledge and Data-driven Modeling for Process Analysis and Improvement*. [Project Acronym Panda]. Supervisor. Ongoing.
- Sérgio Reis, *Metodologias de Melhoria Sistemática de Processos para a Indústria 4.0*. Co-supervisor. Ongoing.
- André Mendes Sancho, *Aplicação de Espectroscopia de Infravermelho, Cromatografia em Fase Gasosa e Alta Resolução e RMNH 1H no estudo e classificação de crudes para efeitos de Controlo de Qualidade e Refinação*. Co-supervisor. Ongoing.
- Paulo Alexandre Neves Dias, *Papéis com elevada estabilidade dimensional*. Supervisor. Ongoing.
- Helena Filipa Bigares Grangeia, *Quality by Design for Advance Pharmaceutical Manufacturing 4.0*. Co-supervisor. Ongoing.
- Véronique Imperatriz Medeiros Gomes, *Spectroscopy Data Driven Models for Smart Agriculture*. Co-supervisor. Ongoing.

## V.2 MSc students and Research associates

Supervised more than 50 MSc students and research associates, mostly in the fields of Chemical Engineering and Biomedical Engineering.

## V.3 Post-Doctoral researchers

- Tiago Miguel Janeiro Rato
- Raquel Durana Chambre de Sá Moita

## VI. Activity as Referee

- *African Journal of Agricultural Research*
- *AIChE Journal*
- *Analytica Chimica Acta*
- *Applied Stochastic Models in Business and Industry*
- *Applied Surface Science*
- *Advances in Fuzzy Systems*
- *Arabian Journal for Science and Engineering*
- *Asia-Pacific Journal of Chemical Engineering*
- *BMC – Systems Biology*

- *Chemical Engineering Science*
- *Chemical Papers*
- *Chemometrics and Intelligent Laboratory Systems*
- *Computers & Chemical Engineering*
- *Computers & Industrial Engineering*
- *Engineering Applications of Artificial Intelligence*
- *European Journal of Industrial Engineering*
- *Food and Bioprocess Technology: An International Journal*
- *IEEE Sensors Journal*
- *IEEE Transactions on Industrial Electronics*
- *Industrial & Engineering Chemistry Research*
- *International Journal of Automation and Engineering*
- *International Journal of Quality & Reliability Management*
- *International Journal of Signal and Imaging Systems Engineering*
- *ISA Transactions*
- *Journal of Chemometrics*
- *Journal on Computing and Cultural Heritage*
- *Journal of Official Statistics*
- *Journal of Process Control*
- *Journal of Analytical Methods in Chemistry*
- *Journal of Zhejiang University – Science A*
- *Latin American Applied Research*
- *Neurocomputing*
- *Nordic Pulp & Paper Research Journal*
- *Polymer Testing*
- *Processes*
- *Quality Engineering*
- *Quality and Reliability Engineering International*
- *Quality Technology & Quantitative Management*
- *Scientia Iranica*
- *Sensors*
- *Talanta*

- Committee for the nomination and selection of the “George Box Medal”, “Young Statistician Award” and “Best Manager Award” in *ENBIS – European Network for Business and Industrial Statistics* (2005-2006, 2012-2013).
- President of ENBIS Awards Committee (2013-2015).
- Invited/special reviewer in several international conferences on Process Systems Engineering and Applied Statistics (ESCAPE, PSE, ICheAP).

## VII. Awards and Recognitions

- Awarded with a Fulbright grant for visiting scholars at the USA (2019-2020).
- Winner of the Professor Almiro e Castro award. This award was established in 2014 and distinguishes the scientific merit of a Portuguese faculty or researcher, under the age of 45, who has excelled in the last three years in the fields of Chemical, Biological and related Engineering.
- Winner of the Best Paper Award international journal, Processes, for the period 2016-2017, with the article: Reis, M.S., G. Gins, Industrial Process Monitoring in the Big Data / Industry 4.0 Era: From Detection, to Diagnosis, to Prognosis. *Processes* 5 (3), 35 (2017), pp. 1-16.
- Best poster award at “Europe Discovery Summit”, organized by JMP® (from SAS), Amsterdam (Netherlands), 14-17 March 2016: *Analysis of a Waste Management process using Principal Components Analysis and Data Visualization*.
- Best poster award at the “World Quality Forum”, organized by the International Academy for Quality, Budapest (Hungary), 26-27 October 2015: *Big Data: what's there for Six Sigma?*.
- Best article of the year published in the journal “Qualidade” (2010).
- Best Presentation Award: “*Combining Predictions at Multiple Scales for Process Monitoring*”, CHEMPOR 2008 “10<sup>th</sup> International Chemical and Biological Engineering Conference”, Braga (Portugal), 4 - 6 September 2008.
- Best Poster Award: “*A New Procedure for Measuring Diagonal Curl*”, “XX Encontro Nacional da Tecnicelpa”, Tomar, October 2007.
- Best Poster Award: *Quality Control of Food Products using Image Analysis and Statistical Tools*, “Sixth Annual ENBIS Conference”, Wroclaw (Poland), September 2006.
- Best Presentation Award: *Multiscale Approach for the Monitoring of Paper Surface Profile*, “5<sup>nd</sup> Annual Meeting of ENBIS”, Newcastle (England).
- Best student award on Pulp and Paper Technology (1995).

Marco Paulo Seabra dos Reis

*Coimbra, March 7<sup>th</sup>, 2022*