Algumas produções científicas do *Programa de Pós-Graduação em Engenharia Eletrônica e Computação* (PG/EEC) do Instituto Tecnológico de Aeronáutica (ITA)

2020

1. A Data-Driven Model to Describe and Forecast the Dynamics of Covid-19 Transmission. Henrique M. Paiva, **Rubens Junqueira Magalhães Afonso (docente)**, Igor L. de Oliveira, Gabriele F. Garcia. *Plos One*.

2. A Low-Power Asynchronous Hardware Implementation of a Novel SVM Classifier, with an Application in a Speech Recognition System. **Gracieth Cavalcanti Batista (egressa)**, **Duarte Lopes de Oliveira (docente)**, **Osamu Saotome (docente)**, Washington L. S. Silva. *Microelectronics Journal*.

3. A Model for Assessing the Impact of Linear and Nonlinear Distortions on a GNSS Receiver. Mariano Vergara, **Felix Dieter Antreich (docente)**, Christoph Enneking (*), Matteo Sgamimini (*), Gonzalo Seco-Granados (*). *GPS Solutions*.

4. A Nonlinear Digital Controller for an Aeronautical Pneumatic System. **Dayvis Dias da Silva (egresso)**, **Wallace Hessler Leal Túrcio (egresso)**, **Takashi Yoneyama (docente)**. *Control Engineering Practice*.

5. A Spare Parts Inventory Control Model Based on Prognostics and Health Monitoring Data under a Fill Rate Constraint. **Leonardo Ramos Rodrigues (docente)**, **Takashi Yoneyama (docente)**. *Computers & Industrial Engineering*.

6. A Study on Launch Vehicle on Board Acoustic Data Compression. Guilherme Coelho da Silva Stanisce Correa, Rogério Pirk, **Marcelo da Silva Pinho (docente)**. *Applied Acoustics*.

7. A Theoretical and Experimental Study of Injection-Pulling for IL-PLL Optoelectronic Oscillator under RF Signal Injection. Abhijit Banerjee (*), **Larissa Aguiar Dantas de Britto (discente)**, **Gefeson Mendes Pacheco (docente)**. *Optik*.

8. A Theoretical and Experimental Study on the Performance of Injection-Synchronized Single-Loop Optoelectronic Oscillators in Presence of Interference. Abhijit Banerjee (*), **Larissa Aguiar Dantas de Britto (discente)**, **Gefeson Mendes Pacheco (docente)**. *Higher Education*.

9. Alternative Analysis Method of Lumped-Element Circuit Model for Transmission Lines. **Daniel Basso Ferreira (egresso)**, **Daniel Chagas do Nascimento (docente)**. *Electronics Letters*.

10. An Analysis on Tradable Permit Models for Last-Mile Delivery Drones. **Filipe Alves Neto Verri (docente)**, **Cesar Augusto Cavalheiro Marcondes (docente)**, Denis Silva Loubach, Elton Felipe Sbruzzi, **Johnny Cardoso Marques (egresso)**, Lourenço Alves Pereira Jr., **Marcos R. O. de Albuquerque Maximo (docente)**, **Vitor Venceslau Curtis (docente)**. *IEEE Access*.

11. Analysis of Phase Noise in Self-Injection-Locked Optoelectronic Oscillator. Abhijit Banerjee (*), **Larissa Aguiar Dantas de Britto (discente)**, **Gefeson Mendes Pacheco (docente)**. *Optik*.

12. Analysis of Plasma Bubble Signatures in Total Electron Content Maps of the Low-Latitude Ionosphere: a Simplified Methodology. **Cesar B. Abud de Oliveira (egresso)**,

Teddy M. S. Espejo (*), **Alison de Oliveira Moraes (docente)**, Emanoel P. de Oliveira Costa, **Jonas de Sousa dos Santos (pós-doc)**, Luis Felipe de Paula Santos, **Mangalathayil A. Abdu (docente)**. *Surveys in Geophysics*.

13. Analysis of Solution Pattern of Natural Frequencies by a Graphical Method. Ugur Cem Hasar (*), Gokhan Ozturk (*), Musa Bute (*), Mehmet Ertugrul (*), **Joaquim José Barroso de Castro (docente)**. *IEEE Transactions on Antennas and Propagation*.

14. Audio-Based Machine Learning Model for Traffic Congestion Detection. **Rubens Cruz Gatto (egresso)**, **Carlos H. Forster Quartucci (docente)**. *IEEE Transactions on Intelligent Transportation Systems*.

15. Big High-Dimension Data Cube Designs for Hybrid Memory Systems. **Rodrigo Rocha Silva (egresso)**, **Celso M. Hirata (docente)**, Joubert de Castro Lima. *Knowledge and Information Systems*.

16. Change Detection in UWB SAR Images Based on Robust Principal Component Analysis. **Christofer Schwartz (pós-doc)**, **Lucas Pedroso Ramos (discente)**, Leonardo T. Duarte, **Marcelo S. Pinho (docente)**, Mats I. Pettersson (*), Viet T. Vu (*), **Renato Machado (docente)**. *Remote Sensing*.

17. Channel Parameter Estimation for Millimeter-Wave Cellular Systems with Hybrid Beamforming. Fazal E Asim (*), **Felix Dieter Antreich (docente)**, Charles C. Cavalcante, André L. Ferrer de Almeida, Josef A. Nossek (*). *Signal Processing*.

18. CNN-Based Change Detection Algorithm for Wavelength Resolution SAR Images. João Gabriel Vinholi, Danilo Silva, **Renato Machado (docente)**, Mats I. Pettersson (*). *IEEE Geoscience and Remote Sensing Letters*.

19. Computational Load Reduction of the Agent Guidance Problem Using Mixed Integer Programming. **Vinicius Antonio Battagello (discente)**, **Nei Yoshihiro Soma (docente)**, **Rubens Junqueira Magalhães Afonso (docente)**. *Plos One*.

20. Cooperative Localization for Multiple Soccer Agents Using Factor Graphs and Sequential Monte Carlo. **Guilherme Costa Guimarães Fernandes (egresso)**, **Stiven Schwans Dias (egresso)**, **Marcos R. O. de Albuquerque Maximo (docente)**, **Marcelo Gomes da Silva Bruno (docente)**. *IEEE Access*.

21. Cooperative Parameter Estimation on the Unit Sphere using a Network of Diffusion Particle Filters. **Caio Gomes de Figueredo (discente)**, Claudio José Bordin Jr., **Marcelo Gomes da Silva Bruno (docente)**. *IEEE Signal Processing Letters*.

22. Cooperative Terrain Navigation using Hybrid GMM/SMC Message Passing on Factor Graphs. **Hallysson Oliveira (discente)**, **Stiven Schwanz Dias (egresso)**, **Marcelo Gomes da Silva Bruno (docente)**. *International Journal of Molecular Sciences*.

23. Coprime Factorization of Polytopic LPV Systems Based on a Homogeneous Polynomial Approach. **Renan Lima Pereira (docente)**, **Karl Heinz Kienitz (docente)**, **Matheus Senna de Oliveira (discente)**. *Asian Journal of Control*.

24. Dynamic Repair Priority Rule Based on Remaining Useful Life Predictions. **Leonardo Ramos Rodrigues (docente)**, **Takashi Yoneyama (docente)**. *ISA Transactions*.

25. Effect of Positive End-Expiratory Pressure and Proning on Ventilation and Perfusion in COVID-19 Acute Respiratory Distress Syndrome. François Perier (*), Samuel Tuffet

(*), Tommaso Maraffi (*), Glasiele Alcala (*), **Marcus Henrique Victor Junior (docente)**, Anne-Fleur Haudebourg (*), Nicolas De Prost (*), Marcelo Amato (*), Guillaume Carteaux (*), Armand Mekontso Dessap (*). *American Journal of Respiratory and Critical Care Medicine*.

26. Electrical Impedance Tomography to Titrate Positive End-Expiratory Pressure in COVID-19 Acute Respiratory Distress Syndrome. François Perier (*), Samuel Tuffet (*), Tommaso Maraffi (*), Glasiele Alcala (*), **Marcus Henrique Victor Junior (docente)**, Anne-Fleur Haudebourg (*), Keyvan Razazi (*), Nicolas De Prost (*), Marcelo Amato (*), Guillaume Carteaux (*), Armand Mekontso Dessap (*). *Critical Care*.

27. Evaluation of the Dusk and Early Nighttime Total Electron Content Modeling Over the Eastern Brazilian Region During a Solar Maximum Period. **André Luiz Almeida Silva (discente)**, **Jonas de Sousa dos Santos (pós-doc)**, Leonardo M. Pereira, Luis F. D. Lourenço, **Alison de Oliveira Moraes (docente)**, **Mangalathayil A. Abdu (docente)**. *Advances in Space Research*.

28. Extending STPA with Stride to Identify Cybersecurity Loss Scenarios. **Nivio Paula de Souza (egresso)**, Cecília de Azevedo C. Cesar, Juliana de Melo Bezerra, **Celso M. Hirata (docente)**. *Journal of Information Security and Applications*.

29. False Alarm Reduction in Wavelength-Resolution SAR Change Detection Schemes by using a Convolutional Neural Network. **Alexandre Becker Campos (discente)**, Mats I. Pettersson (*), Viet T. Vu (*), **Renato Machado (docente)**. *IEEE Geoscience and Remote Sensing Letters*.

30. Frequency Pulling in Optoelectronic Oscillator by RF Signal Injection. Jayjeet Sarkar (*), **Larissa Aguiar Dantas de Britto (discente)**, Abhijit Banerjee (*), Nikhil R. Das (*), **Gefeson Mendes Pacheco (docente).** *Optical and Quantum Electronics*.

31. Frequency-Reconfigurable SIW Microstrip Antenna. **Eduardo dos Santos Silveira (discente)**, **Felix Dieter Antreich (docente)**, **Daniel Chagas do Nascimento (docente)**. *AEU - International Journal of Electronics and Communications*.

32. Further Complexities on the Pre-Reversal Vertical Drift Modeling over the Brazilian Region: a Comparison between Long-Term Observations and Model Results. **Jonas de Sousa dos Santos (pós-doc)**, **Mangalathayil A. Abud (docente)**, Angela M. S. Valentim, Inez S. Batista, **André Luiz Almeida Silva (discente)**, Luis E. V. Loures da Costa. *Journal of Space Weather and Space Climate*.

33. Identification of Fractional-Order Transfer Functions Using Exponentially Modulated Signals with Arbitrary Excitation Waveforms. **Roberto Kawakami Harrop Galvão (docente)**, Marcelo C. M. Teixeira, Edvaldo Assunção, Henrique M. Paiva, Sillas Hadjiloucas (*). *ISA Transactions*.

34. Improved LMI Conditions for Unknown Input Observer Design of Discrete-Time LPV Systems. **Matheus Senna de Oliveira (discente)**, **Renan Lima Pereira (docente)**. *International Journal of Control, Automation and Systems*.

35. Improving Teaching-Learning Process in MIL-STD-1553B Bus Classes using a New Hybrid Web-Lab Methodology. **Pedro Carlos da Silva Euphrasio (discente)**, **Lester de Abreu Faria (docente)**, José S. E. Germano, Daisy Hirata. *IEEE Transactions on Education*.

36. Increasing the Voltage Modulation Depth of the RF Produced by NLTL. Lauro Paulo da Silva Neto, Henrique M. Moraes, José O. Rossi, **Joaquim José Barroso de Castro (docente)**, Elizete G. L. Rangel. *IEEE Transactions on Plasma Science*.

37. Measuring Battery Discharge Characteristics for Accurate UAV Endurance Estimation. **Leonardo Mariga (discente)**, Isaías da Silva Tiburcio, Cristiane Ap. Martins, **André Neves de Almeida Prado (egresso)**, **Cairo Lúcio Nascimento Junior (docente)**. *Aeronautical Journal*.

38. Minimum-Time Trajectory Planning for a Differential Drive Mobile Robot Considering Non-Slipping Constraints. **Igor Franzoni Okuyama (egresso)**, **Marcos R. O. de Albuquerque Maximo (docente)**, **Rubens Afonso Magalhães Afonso (docente)**. *Journal of Control, Automation and Electrical Systems*.

39. Mission Planning for Multiple UAVs in a Wind Field with Flight Time Constraints. Vandilberto Pereira Pinto, **Roberto Kawakami Harrop Galvão (docente)**, **Leonardo Ramos Rodrigues (docente)**, João Paulo Pordeus Gomes. *Journal of Control, Automation and Electrical Systems*.

40. Mitigation of Ionospheric Scintillation Effects on GNSS Precise Point Positioning (PPP) at Low Latitudes. Sreeja Vadakke Veettil (*), Marcio Aquino, Haroldo Antonio Marques, **Alison de Oliveira Moraes (docente)**. *Journal of Geodesy*.

41. Mixed-Integer Quadratic Programming for Automatic Walking Footstep Placement, Duration, and Rotation. **Marcos R. O. de Albuquerque Maximo (docente)**, **Rubens Junqueira Magalhães Afonso (docente)**. *Optimal Control Applications and Methods*.

42. Nonlinear Predictive Control Employing Carleman Bilinearization and Fixed Search Directions. **Henrique William Resende Pereira (discente)**, **Roberto Kawakami Harrop Galvão (docente)**, **Takashi Yoneyama (docente)**. *Asian Journal of Control*.

43. On the Scalability of CFD Tool for Supersonic Jet Flow Configurations. **Carlos Alberto Junqueira Branco Junior (egresso)**, **João Luiz Filgueiras de Azevedo (docente**), **Jairo Panetta (docente)**, William Roberto Wolf, Sami Yamouni. *Parallel Computing*.

44. On the Transient Behavior of Single-Loop Optoelectronic Oscillators Under RF Injection-Locking. Abhijit Banerjee (*), Jayjeet Sarkar (*), **Larissa Aguiar Dantas de Britto (discente)**, **Gefeson Mendes Pacheco (docente)**, Nikhil R. Das (*). *IEEE Journal of Quantum Electronics*.

45. On Unknown Input Observers Designs for Discrete-Time LPV Systems with Bounded Rates of Parameter Variation. **Matheus Senna de Oliveira (discente)**, **Renan Lima Pereira (docente)**. *European Journal of Control*.

46. Performance of 6 Different GNSS Receivers at Low Latitude Under Moderate and Strong Scintillation. Eurico Rodrigues de Paula, A. R. F. Martinon, **Alison de Oliveira Moraes (docente)**, C. Carrano (*), A. C. Neto, P. Doherty (*), K. Groves (*), C. E. Valladares (*), G. Crowley (*), I. Azeem (*), A. Reynolds (*), D. M. Akos (*), T. Walter (*), T. L. Beach (*), J.-M. Slewaegen (*). *Earth and Space Science*.

47. Physics-Based Design of Microstrip Magnetic Dipoles using Cavity Model. **Daniel Basso Ferreira (egresso)**, **Ildefonso Bianchi (docente)**, Cristiano Borges de Paula. *Journal of Microwaves, Optoelectronics and Electromagnetic Applications*.

48. Predictive Control of Linear Systems with Switched Actuators Subject to Dwell-Time Constraints. **Matheus Henrique Marcolino (egresso)**, **Roberto Kawakami Harrop Galvão (docente)**, **Karl Heinz Kienitz (docente)**. *Journal of Control, Automation and Electrical Systems*.

49. Proposal of Low Cost Launchers for Scientific Missions Using Cubesats. Danton José Fortes Villas Boas, Carlos H. M. Souza, Felipe da Motta Silva, **Alison de Oliveira Moraes (docente)**. *Advances in Space Research*.

50. Real-Time Walking Step Timing Adaptation by Restricting Duration Decision for the First Footstep. **Marcos R. O. de Albuquerque Maximo (docente)**, **Carlos Henrique Costa Ribeiro (docente)**, **Rubens Junqueira Magalhães Afonso (docente)**. *Advanced Robotics*.

51. Re-Examining Low-Latitude Ionospheric Error Bounds: an SBAS Approach for Brazil. Leonardo Marini Pereira, Samuel Pullen (*), **Alison de Oliveira Moraes (docente)**. *IEEE Transactions on Intelligent Transportation Systems*.

52. Regional Ionospheric Delay Mapping for Low-Latitude Environments. Leonardo Marini Pereira, Luis F. D. Lourenço, **Jonas de Sousa dos Santos (pós-doc)**, **Alison de Oliveira Moraes (docente)**, Samuel Pullen (*). *Radio Science*.

53. Role of Bottom-Side Density Gradient in the Development of Equatorial Plasma Bubble/Spread F Irregularities: Solar Minimum and Maximum Conditions. **Mangalathayil A. Abdu (docente)**, Esphan Alam Kherani, **Jonas de Sousa dos Santos (pós-doc)**. *Journal of Geophysical Research: Space Physics*.

54. Selecting Projects on the Brazilian R&D Energy Sector: a Fuzzy-Based Approach for Criteria Selection. Dalton Garcia Borges de Souza, Carlos E. S. da Silva, **Nei Yoshihiro Soma (docente)**. *IEEE Access*.

55. Sensitivity Analysis-Based Sepsis Prognosis Using Artificial Intelligence. **José Lucas de Alencar Saraiva (discente)**, Otávio M. Becker Jr., Eliezer Silva, Visakan Kadirkamanathan (*), **Karl Heinz Kienitz (docente)**. *Research on Biomedical Engineering*.

56. Spherical Wave Array Based Positioning for Vehicular Scenarios. Marco Antonio Marques Marinho, Alexey Vinel (*), Fredrik Tufvesson (*), **Felix Dieter Antreich (docente)**, João Paulo Carvalho Lustosa da Costa, Edison Pignaton de Freitas. *IEEE Access*.

57. Task Allocation and Trajectory Planning for Multiple Agents in the Presence of Obstacle and Connectivity Constraints with Mixed-Integer Linear Programming. **Rubens Junqueira Magalhães Afonso (docente)**, **Marcos R. O. de Albuquerque Maximo (docente)**, **Roberto Kawakami Harrop Galvão (docente)**. *International Journal of Robust and Nonlinear Control*.

58. Tensor-Based Framework with Model Order Selection and High Accuracy Factor Decomposition for Time-Delay Estimation in Dynamic Multipath Scenarios. Mateus da Rosa Zanatta, João P. C. Lustosa da Costa, **Felix Dieter Antreich (docente)**, Martin Haardt (*), Gordon Elger (*), Fábio L. Lopes de Mendonça, Rafael T. de Sousa Jr. *IEEE Access*.

59. The Feasibility of Remotely Piloted Aircrafts for VOR Flight Inspection. **Diogo de Oliveira Costa (egresso)**, **Neusa Maria Franco de Oliveira (docente)**, **Roberto d'Amore (docente)**. *Sensors*.

60. Trigonometric Series-Based Smooth Flight Trajectory Generation. Haichao Hong (*), Patrick Piprek (*), **Rubens Junqueira Magalhães Afonso (docente)**, Florian Holzapfel (*). *IEEE Transactions on Aerospace and Electronic Systems*.

61. Two-Dimensional Channel Parameter Estimation for Millimeter-Wave Systems using Butler Matrices. Fazal E Asim (*), **Felix Dieter Antreich (docente)**, Charles Casimiro Cavalcante, André L. Ferrer de Almeida, Josef Anton Nossek (*). *IEEE Transactions on Wireless Communications*.

62. Two-Parameter Stability Analysis of Resistive Droop Control Applied to Parallel-Connected Voltage-Source Inverters. **Eduardo Lenz Cesar (docente)**, Daniel Juan Pagano, Adriano Ruseler, Marcelo Lobo Heldwein. *IEEE Journal of Emerging and Selected Topics in Power Electronics*.

63. Unsupervised Classification of Atrial Electrograms for Electroanatomic Mapping of Human Persistent Atrial Fibrillation. Tiago Paggi de Almeida (*), Diogo Soriano, Michela Mase (*), Flavia Ravelli (*), **Arthur Santos Bezerra (discente)**, Xin Li (*), Gavin Chu (*), João Salinet, Peter Stafford (*), G. Andre Ng (*), Fernando Schlindwein (*), **Takashi Yoneyama (docente)**. *IEEE Transactions on Biomedical Engineering*.

64. Use of Flatness-Based Control as Feedforward Compensator for an Aeronautical Pneumatic System. **Dayvis Dias da Silva (egresso)**, **Takashi Yoneyama (docente)**. *Journal of Control, Automation and Electrical Systems*.

65. Wavelength-Resolution SAR Change Detection Using Bayes' Theorem. Dimas I. Alves, **Bruna Gregory Palm (pós-doc)**, Hans Hellsten (*), Viet T. Vu (*), Mats I. Pettersson (*), **Renato Machado (docente)**, Bartolomeu F. Uchôa-Filho, Patrick Dammert (*). *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*.

66. Wavelength-Resolution SAR Ground Scene Prediction Based on Image Stack. **Bruna Gregory Palm (pós-doc)**, Dimas I. Alves, Mats I. Pettersson (*), Viet T. Vu (*), **Renato Machado (docente)**, Renato J. Cintra, Fábio M. Bayer, Patrik Dammert (*), Hans Hellsten (*). *Sensors*.

67. *Inventory Control for Non-Repairable Items Based on Prognostics and Health Monitoring Data*. **Leonardo Ramos Rodrigues (docente)**. Patent no. US 10,607,180 B2. Publication date: 31/03/2020.

68. *Sensor de deslocamento angular a Fibra óptica baseado em modulação de intensidade óptica em configuração com lente convergente e duas fibras ópticas paralelas com extremidades clivadas e alinhadas, seu método de medição e seu processo de obtenção*. **João Marcos Salvi Sakamoto (egresso)**, **Gefeson Mendes Pacheco (docente)**. Registro de patente: Instituto Nacional da Propriedade Industrial (INPI). Código: BR 10 2013 012273 4 B1. Depósito: 17/05/2013. Concessão: 01/12/2020. Financiador: Comando Geral de Tecnologia Aeroespacial.

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1. A Class of Mappings for Assessment of Aircraft Pneumatic Actuator Degradation Parameters. **Júlio César Graves (egresso)**, Wallace Hessler Leal Turcio, **Takashi Yoneyama (docente)**. *IEEE Transactions on Reliability*.

2. A Congestion Control Framework for Delay- and Disruption Tolerant Networks. **Aloízio Pereira da Silva (egresso)**, Katia Obraczka (*), Scott Burleigh (*), José M.S. Nogueira, **Celso M. Hirata (docente)**. *Ad Hoc Networks*.

3. A Multipolar-Valued Fuzzy Sets Approach to Teaching People with Disabilities. **Rubens dos Santos Guimarães (egresso)**, **Paulo Marcelo Tasinaffo (docente)**. *International Journal of Innovative Computing, Information & Control*.

4. A Novel Approach for Stall Prevention and Rotation Speed Limiting in a Min-Max Controller Structure. **Antonio Hadade Neto (discente)**, **Takashi Yoneyama (docente)**. *Journal of Control, Automation and Electrical Systems*.

5. A Novel Approach to Improve GNSS Precise Point Positioning during Strong Ionospheric Scintillation: Theory and Demonstration. Bruno Cesar Vani, Biagio Forte, João Francisco Galera Monico, Susan Skone (*), Milton Hirokazu Shimabukuro, **Alison de Oliveira Moraes (docente)**, **Igor Ponte Portella (discente)**, Haroldo Antonio Marques. *IEEE Transactions on Vehicular Technology*.

6. A Numerical Study on the 3-D Approach of the Equatorial Plasma Bubble Seeded by the Prereversal Vertical Drift. **Jonas de Sousa dos Santos (pós-doc)**, E.A. Kherani, J.H.A. Sobral, **Mangalathayil A. Abdu (docente)**, **Alison O. Moraes (docente)**, **César B. Abud de Oliveira (egresso)**. *Journal of Geophysical Research: Space Physics*.

7. A STAMP-Based Ontology Approach to Support Safety and Security Analyses. **Daniel Patrick Pereira (discente)**, **Celso M. Hirata (docente)**, Simin Nadjm-Tehrani (*). *Journal of Information Security and Applications*.

8. A Statistical Analysis for Wavelength-Resolution SAR Image Stacks. Dimas I. Alves, Bruna G. Palm, Mats I. Pettersson (*), Viet T. Vu (*), **Renato Machado (docente)**, Bartolomeu F. Uchôa-Filho, Patrik Dammert (*), Hans Hellsten (*). *IEEE Geoscience and Remote Sensing Letters*.

9. A Theoretical and Experimental Study of Injection-Locking and Injection-Pulling for Optoelectronic Oscillators Under Radio Frequency Signal Injection. Abhijit Banerjee (*), **Larissa Aguiar Dantas de Britto (discente)**, **Gefeson Mendes Pacheco (docente)**. *Journal of Lightwave Technology*.

10. Adams-Bashforth Neural Networks Applied in a Predictive Control Structure with only One Horizon. **Paulo Marcelo Tasinaffo (docente)**, Atair Rios Neto. *International Journal of Innovative Computing, Information & Control*.

11. An Improved Balanced Algorithm for the Subset-Sum Problem. **Vitor Venceslau Curtis (egresso)**, **Carlos Alberto Alonso Sanches (docente)**. *European Journal of Operational Research*.

12. An Introduction to Universal Numerical Integrators. **Paulo Marcelo Tasinaffo (docente)**, Gildárcio Sousa Gonçalves, **Adílson Marques da Cunha (docente)**, **Luiz**

Alberto Vieira Dias (docente). *International Journal of Innovative Computing, Information & Control*.

13. Analysis of Injection Locking and Pulling in Single-Loop Optoelectronic Oscillator. Abhijit Banerjee (*), **Larissa Aguiar Dantas de Britto (discente)**, **Gefeson Mendes Pacheco (docente)**. *IEEE Transactions on Microwave Theory and Techniques*.

14. Artificial Neural Networks with Random Weights for Incomplete Datasets. Diego Parente Paiva Mesquita, João Paulo P. Gomes, **Leonardo R. Rodrigues (docente)**. *Neural Processing Letters*.

15. Automatic Speech Patterns Recognition of Commands using SVM and PSO. **Gracieth Cavalcanti Batista (discente)**, Washington Luís Santos Silva, **Duarte Lopes de Oliveira (docente)**, **Osamu Saotome (docente)**. *Multimedia Tools and Applications*.

16. BeiDou 3 Signal Quality Analysis and its Impact on Users. Steffen Thölert (*), **Felix Antreich (docente)**, Christoph Enneking (*), Michael Meurer (*). *Navigation*.

17. Co-Design of a GPS Antenna Low-Noise Amplifier Front-End Circuit. **Eduardo Seiji Sakomura (discente)**, **Diego Felipe Moná Boada (discente)**, **Daniel Chagas Nascimento (docente)**. *Journal of Microwaves, Optoelectronics and Electromagnetic Applications*.

18. Compact Broadband High-Directivity Microstrip Directional Coupler. **Bernardo M. Fabiani (egresso)**, **Eduardo Seiji Sakomura (discente)**, **Tarcísio A.B. Gripp (egresso)**, **Daniel Chagas Nascimento (docente)**. *Journal of Microwaves, Optoelectronics and Electromagnetic Applications*.

19. Contextual Hybrid Session-Based News Recommendation with Recurrent Neural Networks. **Gabriel de Souza Pereira Moreira (discente)**, Dietmar Jannach (*), **Adílson Marques da Cunha (docente)**. *IEEE Access*.

20. D-Stability of Parameter-Dependent Linear Systems Including Discretisation by Taylor Series Expansion and Search in a Scalar Parameter. **Marco Aurélio Carvalho Leandro (egresso)**, **Karl Heinz Kienitz (docente)**. *International Journal of Modelling, Identification and Control.*

21. Differential Linear Matrix Inequalities Optimization. Tiago R. Gonçalves, **Gabriela W. Gabriel (docente)**, José C. Geromel. *IEEE Control Systems Letters*.

22. Direct Design of Controllers using Complementary State and State-Derivative Feedback. **Fernanda Quelho Rossi (egressa)**, **Roberto Kawakami Harrop Galvão (docente)**, Marcelo Carvalho Minhoto Teixeira, Edvaldo Assunção. *Journal of Control, Automation and Electrical Systems*.

23. Effects of Boundary Layer Transition on the Aerodynamic Analysis of High-Lift Systems. Gustavo Luiz Olichevis Halila, **Alexandre Pequeno Antunes (egresso)**, Ricardo Galdino da Silva, **João Luiz F. Azevedo (docente)**. *Aerospace Science and Technology*.

24. Evaluation of Ionospheric Models for Central and South Americas. Telmo dos Santos Klipp, Adriano Petry, Jonas Rodrigues de Souza, Gabriel Sandim Falcão, Haroldo Fraga de Campos Velho, Eurico Rodrigues de Paula, **Felix Antreich (docente)**, Mainul Hoque (*), Martin Kriegel (*), Jens Berdermann (*), Norbert Jakowski (*), Isabel

Fernandez-Gomez (*), Claudia Borries (*), Hiroatsu Sato (*), Volker Wilken (*). *Advances in Space Research*.

25. Interdisciplinary Learning: an Electronic and Computer Engineering Education. **Neusa Maria Franco de Oliveira (docente)**, **Roberto d'Amore (docente)**, Tertuliano Pinto, Ligia Urbina, Wilson Cabral Souza Jr. *International Journal of Engineering Education*.

26. Interference and Multipath Suppression with Space-Time Adaptive Beamforming for Safety-of-Life Maritime Applications. Manuel Appel (*), Andreas Iliopoulos (*), Friederike Fohlmeister (*), Emilio Pérez Marcos (*), Manuel Cuntz (*), Andriy Konovaltsev (*), **Felix Antreich (docente)**, Michael Meurer (*). *CEAS Space Journal*.

27. iPCM Telemetry Protocol: Reliability and Bandwidth Improvement for PCM IRIG-106. **Marco Aurélio Carvalho (egresso)**, Nelson Paiva Oliveira Leite, **Roberto d'Amore (docente)**. *IEEE Transactions on Aerospace and Electronic Systems*.

28. Low Power Membership Function Generator for Interval Type-2 Fuzzy System. **Gabriel Antonio Fanelli de Souza (discente)**, **Rodrigo Bispo dos Santos (discente)**, **Lester de Abreu Faria (docente)**. *Journal of Intelligent & Fuzzy Systems*.

29. Low-Power Current-Mode Interval Type-2 Fuzzy Inference Engine Circuit. **Gabriel Antonio Fanelli de Souza (discente)**, **Rodrigo Bispo dos Santos (discente)**, **Lester de Abreu Faria (docente)**. *IEEE Transactions on Circuits and Systems*.

30. Measurement and Characterization of Power Lines of Aircraft Flight Test Instrumentation. Ândrei Camponogara, Thiago R. Oliveira, **Renato Machado (docente)**, Weiler A. Finamore, Moisés V. Ribeiro. *IEEE Transactions on Aerospace and Electronic Systems*.

31. Measurement and Control of Emergent Phenomena Emulated by Resistive-Capacitive Networks, using Fractional-Order Internal Model Control and External Adaptive Control. **Roberto Kawakami Harrop Galvão (docente)**, Sillas Hadjiloucas (*). *Review of Scientific Instruments*.

32. Modelling Approach to Obtain Regional Respiratory Mechanics using Electrical Impedance Tomography and Volume-Dependent Elastance Model. **Marcus H. Victor Jr. (egresso)**, **José B. Melo (egresso)**, R. Roldán, M.A.M. Nakamura, M.R. Tucci, E.L.V. Costa, M.B.P. Amato, **Takashi Yoneyama (docente)**, H. Tanaka. *Physiological Measurement*.

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