

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

2019

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. **Aloízo 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, **M.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 Thöler (*), **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. Andrei 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*.
33. On the Field Validation of α - μ Fading Coefficients Estimator Based on the Autocorrelation Function for Ionospheric Amplitude Scintillation. Leonardo Marini Pereira, **Kelias de Oliveira (egresso)**, Lucas Alves Salles, **Alison de Oliveira Moraes (docente)**, Eurico Rodrigues de Paula, Marcio Tadeu de Assis Honorato Muella, Waldecir João Perrella. *Advances in Space Research*.
34. Optimization Strategies for Geophysics Models on Manycore Systems. Matheus da Silva Serpa, Eduardo H.M. Cruz, Matthias Diener (*), Arthur M. Krause, Philippe O.A. Navaux, **Jairo Panetta (docente)**, Albert Farrés (*), Claudia Rosas (*), Mauricio Hanzich (*). *The International Journal of High Performance Computing Applications*.
35. Performance Analysis of k - μ Distribution for Global Positioning System (GPS) L1 Frequency-Related Ionospheric Fading Channels. **Alison de Oliveira Moraes**

- (docente), Jonas de Sousa Santos (pós-doc)**, Eurico Rodrigues de Paula, Josué Jürgen Popov Pereira da Cunha, **Vicente Carvalho Lima Filho (discente)**, Bruno Cesar Vani. *Journal of Space Weather and Space Climate*.
36. Proposal of Low Cost Launchers for Scientific Missions using Cubesats. Danton José Fortes Villas Bôas, Carlos Henrique Melo Souza, Felipe da Motta Silva, **Alison de Oliveira Moraes (docente)**. *Advances in Space Research*.
 37. Quantifying Uncertainty in Computational Fluid Dynamics Drag Computations on Unstructured Meshes. Maximiliano Alberto Fernandes de Souza, Marcello A. S. Ferrari, Denise B. Ferrari, **João Luiz F. Azevedo (docente)**. *Journal of Aircraft*.
 38. Rayleigh Regression Model for Ground Type Detection in SAR Imagery. Bruna Gregory Palm, Fábio M. Bayer, Renato J. Cintra, Mats I. Peterson (*), **Renato Machado (docente)**. *IEEE Geoscience and Remote Sensing Letters*.
 39. Remaining Useful Life Estimation in Aeronautics: Combining Data-Driven and Kalman Filtering. Marcia Leite Baptista (*), Elsa M.P. Henriques (*), Ivo Paixão de Medeiros, João P. Malere, **Cairo Lúcio Nascimento Jr. (docente)**, Helmut Prendinger (*). *Reliability Engineering & Systems Safety*.
 40. Robust Partial Sampled-Data State Feedback Control of Markov Jump Linear Systems. Rafael Fernandes Cunha, **Gabriela W. Gabriel (docente)**, José C. Geromel. *International Journal of Systems Science*.
 41. Robust Region Elimination for Piecewise Affine Control Laws. **Emílio Tanowe Maddalena (egresso)**, **Roberto Kawakami Harrop Galvão (docente)**, **Rubens Junqueira Magalhães Afonso (docente)**. *Automatica*.
 42. Simulation and Validation of Satellite Attitude Control Algorithms in a Spherical Air Bearing. Rômulo Fernandes da Costa, **Osamu Saotome (docente)**, Elvira Rafikova. *Journal of Control, Automation and Electrical Systems*.
 43. Soft-Error Vulnerability Estimation Approach Based on the Set Susceptibility of Each Gate. **Fábio Batagin Armelin (discente)**, Lírida Alves de Barros Naviner (*), **Roberto d'Amore (docente)**. *Electronics*.
 44. Strong Scaling of Numerical Solver for Supersonic Jet Flow Configurations. **Carlos Alberto Junqueira Branco Jr. (egresso)**, **João Luiz F. Azevedo (docente)**, **Jairo Panetta (docente)**, William R. Wolf, Sami Yamouni. *Journal of the Brazilian Society of Mechanical Sciences and Engineering*.
 45. Study of Injection-Locking and Injection-Pulling in Injection-Locked Optoelectronic Oscillator under Radio Frequency Signal Injection. Abhijit Banerjee (*), **Larissa Aguiar Dantas de Britto (discente)**, **Gefeson Mendes Pacheco (docente)**. *Optical Engineering*.
 46. Tensor-Based Time-Delay Estimation for Second and Third Generation Global Positioning System. Mateus da Rosa Zanatta, Fábio Lúcio Lopes de Mendonça, **Felix Antreich (docente)**, Daniel Valle de Lima, Ricardo Kehrlé Miranda, Giovanni Del Galdo (*), João Paulo C.L. da Costa. *Digital Signal Processing*.
 47. Transient Plane-Wave Transmission through an N-Layer Structure by the Method of Subregions. Ugur Cem Hasar (*), Yunus Kaya (*), **Joaquim J. Barroso (docente)**. *IEEE Antennas and Wireless Propagation Letters*.

48. *Dispositivo de identificação portátil de prevenção de retenção de objetos cirúrgicos com marcadores magnéticos*. José Elias Matieli, **Osamu Saotome (docente)**, Vagner Rogério dos Santos, Evaldo Carlos Fonseca Pereira Jr. Registro de patente: Instituto Nacional da Propriedade Industrial (INPI). Código: BR 112015020441-4 B1. Depósito: 27/02/2014. Concessão: 06/03/2019. Financiador: Instituto Tecnológico de Aeronáutica (ITA).
49. *Verfahren zum Empfangen und Überwachen eines Signals sowie eine Vorrichtung zum Empfangen und Überwachen von Signalen*. **Felix Antreich (docente)**, Andreas Iliopoulos (*), Christoph Enneking (*), Omar Garcia Crespillo (*), Thomas Jost (*), Steffen Thölert (*). Registro de patente: German Patent and Trademark Office. Código: DE102017203543A1. Depósito: 03/03/2017. Concessão: 20/11/2019.

(*) Cooperações internacionais.

1. A Bayesian Interpretation of Distributed Diffusion Algorithms. **Marcelo Gomes da Silva Bruno (docente)**, **Stiven S. Dias (egresso)**. *IEEE Signal Processing Magazine*.
2. A Fast In-Field Coarse Alignment and Bias Estimation Method for Stationary Intermediate-Grade IMUs. Felipe Oliveira e Silva, **Elder M. Hemerly (docente)**, Waldemar C. Leite Filho, Hélio K. Kuga. *IEEE Transactions on Instrumentation and Measurement*.
3. A Novel Fully-Programmable Analog Fuzzifier Architecture for Interval Type-2 Fuzzy Controllers using Current Steering Mirrors. **Gabriel Antonio Fanelli de Souza (discente)**, **Rodrigo Bispo dos Santos (discente)**, Paloma M.S. Rocha Rizol, **Duarte Lopes de Oliveira (docente)**, **Lester Abreu de Faria (docente)**. *Journal of Intelligent & Fuzzy Systems*.
4. A Pagerank-Based Heuristic for the Minimization of Open Stacks Problem. **Rafael de Magalhães Dias Frinhani (discente)**, **Nei Yoshihiro Soma (docente)**. *Plos One*.
5. An Algorithm for Optimal Unequal Error Protection Rate Allocation Exploring Granular Channel Rates. **Marcello Gonçalves Costa (discente)**, **Marcelo Pinho (docente)**. *IEEE Communications Letters*.
6. An Efficient Setup for Freestream Turbulence on Transition Prediction over Aerospace Configurations. Gustavo Luiz Olichevis Halila, Enda Dimitri Vieira Bigarella, **Alexandre Pequeno Antunes (egresso)**, **João Luiz F. Azevedo (docente)**. *Aerospace Science and Technology*.
7. Analytical Model for Predesigning Probe-Fed Hybrid Microstrip Antennas. Nilson R. Rabelo, J.C. da S. Lacava, Alexis F. Tinoco Salazar (*), **Prentice C. Ribeiro Filho (egresso)**, **Daniel C. Nascimento (docente)**, Rubén D. León Vásquez (*), Sidnei J.S. Sant'Anna. *International Journal of Antennas and Propagation*.
8. Approximate Prediction-Based Control Method for Nonlinear Oscillatory Systems with Applications to Chaotic Systems. **Thiago Pereira das Chagas (egresso)**, Pierre-Alexandre Bliman (*), **Karl Heinz Kienitz (docente)**. *Journal of Control Science and Engineering*.
9. Bifurcation Analysis of Parallel-Connected Voltage-Source Inverters with Constant Power Loads. **Eduardo Lenz Cesar (docente)**, Daniel J. Pagano, Josep Pou (*). *IEEE Transactions on Smart Grid*.
10. Building Selective Ensembles of Randomization Based Neural Networks with the Successive Projections Algorithm. Diego Parente Paiva Mesquita, João Paulo P. Gomes, **Leonardo Ramos Rodrigues (docente)**, Saulo A.F. Oliveira, **Roberto Kawakami Harrop Galvão (docente)**. *Applied Soft Computing*.
11. Circularly Polarised Rectangular Microstrip Antenna Design with Arbitrary Input Impedance. **Diego Felipe Moná Boada (discente)**, **Eduardo Seiji Sakomura (discente)**, **Daniel Chagas do Nascimento (docente)**. *IET Microwaves, Antennas & Propagation*.

12. Control with Sensor Fault Tolerance for an Underactuated Linear Positioning System using the TFL/LTR Technique. **Emílio Tanowe Maddalena (egresso)**, **Karl Heinz Kienitz (docente)**. *Journal of Control, Automation and Electrical Systems*.
13. Conversion of Descriptor Representations to State-Space Form: an Extension of the Shuffle Algorithm. **Roberto Kawakami Harrop Galvão (docente)**, **Karl Heinz Kienitz (docente)**, Sillas Hadjiloucas (*). *International Journal of Control*.
14. Degradation Analysis of an Aeronautical Pneumatic Actuator using Hysteresis-Based Signatures. **Júlio César Graves (discente)**, Wallace Hessler Leal Turcio, **Takashi Yoneyama (docente)**. *Journal of Control, Automation and Electrical Systems*.
15. Direct Discrete Time Design of Robust State Derivative Feedback Control Laws. **Fernanda Quelho Rossi (discente)**, **Roberto Kawakami Harrop Galvão (docente)**, Marcelo Carvalho Minhoto Teixeira, Edvaldo Assunção. *International Journal of Control*.
16. Evaluating Optimizations that Reduce Global Memory Accesses of Stencil Computations in GPGPUs. **Thiago Carrijo Nasciutti (egresso)**, **Jairo Panetta (docente)**, Pedro Pais Lopes. *Concurrency and Computation*.
17. Forecasting Fault Events for Predictive Maintenance using Data-Driven Techniques and ARMA Modeling. Marcia Leite Baptista (*), Shankar Sankararaman (*), Ivo Paixão de Medeiros, **Cairo L. Nascimento Jr. (docente)**, Helmut Prendinger (*), Elsa M.P. Henriques (*). *Computers & Industrial Engineering*.
18. Gaussian Approximations for Intra- and Intersystem Interference in RNSS. Christoph Enneking (*), **Felix Antreich (docente)**, Lukas Krieger (*), André L.F. de Almeida. *IEEE Communications Letters*.
19. Hybrid Nonlinear Transmission Lines used for RF Soliton Generation. Lauro Paulo da Silva Neto, José O. Rossi, **Joaquim J. Barroso (docente)**, Edil Schamiloglu (*). *IEEE Transactions on Plasma Science*.
20. Identification of Two-Time Scaled Systems using Prefilters. Anderson Luiz de Oliveira Cavalcanti, **Karl Heinz Kienitz (docente)**, Visakan Kadirkamanathan (*). *Journal of Control Science and Engineering*.
21. Including the Effects of Curvature in the Cavity Model and New Manufacturing Considerations for Cylindrical Microstrip Antennas. **Diego Felipe Moná Boada (discente)**, **Daniel Chagas do Nascimento (docente)**. *IEEE Antennas and Wireless Propagation Letters*.
22. Influence of Different Subgrid-Scale Models in Low-Order LES of Supersonic Jet Flows. **Carlos Alberto Junqueira Branco Jr. (egresso)**, **João Luiz F. Azevedo (docente)**, William R. Wolf. *Journal of the Brazilian Society of Mechanical Sciences and Engineering*.
23. Ionospheric Scintillation Fading Coefficients for the GPS L1, L2, and L5 Frequencies. **Alison de Oliveira Moraes (docente)**, Bruno C. Vani, Emanuel P.O. Costa, **Jonas de Sousa dos Santos (pós-doc)**, **Mangalathayil A. Abdu (docente)**, Fabiano S. Rodrigues (*), Yuri C. Gladek, **César B. Abud de Oliveira (discente)**, João F. Galera Monico. *Radio Science*.

24. Iterative Decentralized Planning for Collective Construction Tasks with Quadrotors. **Sérgio Ronaldo Barros dos Santos (egresso)**, Sidney Givig (*), **Cairo L. Nascimento Jr. (docente)**, José M. Fernandes, Luciano Buonocore, Areolino de Almeida Neto. *Journal of Intelligent & Robotic Systems*.
25. Nonlinear Constrained Beamforming Algorithm for Circularly Polarized Phased Arrays. **Bernardo Moscardini Fabiani (egresso)**, **Eduardo dos Santos Silveira (discente)**, **Marcus Vinicius Pera de Pina (discente)**, **Daniel Chagas do Nascimento (docente)**. *IEEE Antennas and Wireless Propagation Letters*.
26. Nonlinear Control of an Aeronautical Pneumatic System. **Dayvis Dias da Silva (discente)**, **Takashi Yoneyama (docente)**. *Journal of Control, Automation and Electrical Systems*.
27. Nonlinear State Estimation on Unit Spheres using Manifold Particle Filtering. Claudio J. Bordin, **Caio Gomes de Figueredo (discente)**, **Marcelo Gomes da Silva Bruno (docente)**. *Digital Signal Processing*.
28. On the Measurement Selection for Stationary Sins Alignment Kalman Filters. Felipe Oliveira e Silva, **Elder M. Hemerly (docente)**, Waldemar C. Leite Filho. *Measurement*.
29. Operation of a Gyromagnetic Line at Low and High Voltages with Simultaneous Axial and Azimuthal Biases. Fernanda Sayuri Yamasaki, José O. Rossi, **Joaquim J. Barroso (docente)**, Edl Schamiloglu (*). *IEEE Transactions on Plasma Science*.
30. Optimal and Robust Sampled-Data Control of Markov Jump Linear Systems: a Differential LMI Approach. **Gabriela Werner Gabriel (docente)**, Tiago R. Gonçalves, José C. Geromel. *IEEE Transactions on Automatic Control*.
31. Optimal Guaranteed Cost Control for Discrete-Time LPV Systems with Bounded Rates of Variation. **Renan Lima Pereira (docente)**, **Karl Heinz Kienitz (docente)**, **Marco Aurélio Carvalho Leandro (discente)**. *Optimal Control Applications & Methods*.
32. Optimal H^∞ State Feedback Sampled-Data Control Design for Markov Jump Linear Systems. **Gabriela Werner Gabriel (docente)**, J.C. Geromel, K.M. Grigoriadis (*). *International Journal of Control*.
33. Particle Collision Algorithm Applied to Automatic Estimation of Digital Elevation Model from Images Captured by UAV. Marco Antonio Pizani Domiciano, Élcio Hideiti Shiguemori, Luiz Alberto Vieira Dias, **Adílson Marques da Cunha (docente)**. *IEEE Geoscience and Remote Sensing Letters*.
34. Performance Analysis of Probe-Fed Circularly-Polarized Moderately-Thick Microstrip Antennas Designed under the Null Reactance Condition. **Daniel Chagas do Nascimento (docente)**, **Bernardo Moscardini Fabiani (egresso)**, J.C.S. Lacava. *Journal of Microwaves, Optoelectronics and Electromagnetic Applications*.
35. Polarization Reconfigurable Microstrip Phased Array. **Eduardo dos Santos Silveira (discente)**, **Bernardo Moscardini Fabiani (egresso)**, **Marcus Vinicius Pera de Pina (discente)**, **Daniel Chagas do Nascimento (docente)**. *International Journal of Electronics and Communications*.
36. Practical Constraints on Nonlinear Transmission Lines for RF Generation. Elizete G. Lopes Rangel, José O. Rossi, **Joaquim J. Barroso (docente)**, Fernando S. Yamasaki, Edl Schamiloglu (*). *IEEE Transactions on Plasma Science*.

37. Spare Parts List Recommendations for Multiple-Component Redundant Systems using a Modified Pareto Ant Colony Optimization Approach. **Leonardo Ramos Rodrigues (docente)**, João Paulo Pordeus Gomes. *IEEE Transactions on Industrial Informatics*.
38. Spectral Signatures of Pneumatic Actuator Failures: Closed-Loop Approach. **Júlio César Graves (discente)**, Wallace Hessler Leal Turcio, Jorge Alvarez (*), **Takashi Yoneyama (docente)**. *IEEE/ASME Transactions on Mechatronics*.
39. Stabilization of Periodic Orbits of Discrete-Time Dynamical Systems using the Prediction-Based Control: New Control Law and Practical Aspects. **Thiago Pereira das Chagas (egresso)**, Pierre A. Jacques Bliman (*), **Karl Heinz Kienitz (docente)**. *Journal of the Franklin Institute*.
40. Toward Efficient Adaptive Ad-Hoc Multi-Robot Network. Cinara Guellner Ghedini Hita, **Carlos Henrique Costa Ribeiro (docente)**, Lorenzo Sabattini (*). *Ad Hoc Networks*.
41. Using Degradation Messages to Predict Hydraulic System Failures in a Commercial Aircraft. João Paulo Pordeus Gomes, **Leonardo Ramos Rodrigues (docente)**, Bruno P. Leão, **Roberto Kawakami Harrop Galvão (docente)**. *IEEE Transactions on Automation Science and Engineering*.
42. Vis-NIR Spectrometric Determination of Brix and Sucrose in Sugar Production Samples using Kernel Partial Least Squares with Interval Selection Based on the Successive Projections Algorithm. Valber Elias de Almeida, Adriano de Araújo Gomes, David Douglas de Sousa Fernandes, Héctor Casimiro Goicoechea (*), **Roberto Kawakami Harrop Galvão (docente)**, Mario César Ugulino Araújo. *Talanta*.
43. *Portable Device for Identification of Surgical Items with Magnetic Markers*. **Osamu Saotome (docente)**. Patent no. US 9,861,445 B2. Publication date: 09/01/2018.
44. *Processo de geração de microondas usando interação acústico-óptica com ondas estacionárias*. **Gefeson Mendes Pacheco (docente)**, **José Edimar Barbosa (docente)**. Registro de patente: Instituto Nacional da Propriedade Industrial (INPI). Código: PI 0605705-5 B1. Depósito: 21/12/2006. Concessão: 06/03/2018. Financiador: Comando Geral de Tecnologia Aeroespacial.

(*) Cooperações internacionais.

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1. A Dynamic-State Feedback Approach Employing a New State-Space Description for the Fast Wavelet Transform with Multiple Decomposition Levels. J.C. Uzinski, H.M. Paiva, **Roberto Kawakami Harrop Galvão (docente)**, E. Assunção, M.A.Q. Duarte, F. Villarreal. *Journal of Control, Automation and Electrical Systems*.
2. A Fault-Tolerant Filter for Systems Subject to Stochastic Faults. Davi Antonio dos Santos, **Takashi Yoneyama (docente)**. *Journal of Control, Automation and Electrical Systems*.
3. A Low-Space Algorithm for the Subset-Sum Problem on GPU. **Vitor Venceslau Curtis (discente)**, **Carlos Alberto Alonso Sanches (docente)**. *Computers & Operations Research*.
4. A New OFRMPC Formulation with On-Line Synthesis of the Dynamic Output Feedback Controller. **José Roberto Colombo Jr. (discente)**, **Roberto Kawakami Harrop Galvão (docente)**, Edvaldo Assunção. *International Journal of Robust and Nonlinear Control*.
5. A Telemetry Antenna Design for a Sounding Rocket Competition [Antenna Applications Corner]. **Prentice Chaves Ribeiro Filho (egresso)**, Alexis F. Tinoco-S., **Daniel Chagas do Nascimento (docente)**, J.C.S. Lacava. *IEEE Antennas & Propagation Magazine*.
6. A Tolerant JPEG-LS Image Compressor Foreseeing COTS FPGA Implementation. Amauri Lopes, **Roberto d'Amore (docente)**. *Microprocessors and Microsystems*.
7. An Analytical Solution for Fiber Optic Links with Photonic-Assisted Millimeter Wave Upconversion Due to MZM Nonlinearities. **Romildo Henrique de Souza (egresso)**, Olympio Lucchini Coutinho, **José Edimar Barbosa Oliveira (docente)**, Antônio Alves Ferreira Júnior, José Antônio Justino Ribeiro. *Journal of Microwaves, Optoelectronics and Electromagnetic Applications*.
8. Applying Agile Methods to Aircraft Embedded Software: an Experimental Analysis. Samoel Mirachi, Valdir da Costa Guerra, **Adilson Marques da Cunha (docente)**, Luiz Alberto Vieira Dias, Emilia Villani. *Software, Practice & Experience*.
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