# Marcus Fraga Vieira

List of Publications by Year
in descending order

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|---|---|---|---|
| 94<br>papers | 1,246<br>citations | 471371<br>17<br>h-index | 477173<br>29<br>g-index |
| 102<br>all docs | 102<br>docs citations | 102<br>times ranked | 1380<br>citing authors |

| # | Article | IF | Citations |
|---|---------|----|-----------|
| 1 | EMG signal filtering based on Empirical Mode Decomposition. Biomedical Signal Processing and Control, 2006, 1, 44-55. | 3.5 | 149 |
| 2 | The biovid heat pain database data for the advancement and systematic validation of an automated pain recognition system. , 2013, , . | | 146 |
| 3 | Empirical mode decomposition: a novel technique for the study of tremor time series. Medical and Biological Engineering and Computing, 2006, 44, 569-582. | 1.6 | 85 |
| 4 | Automatic pain quantification using autonomic parameters.. Psychology and Neuroscience, 2014, 7, 363-380. | 0.5 | 70 |
| 5 | Study of age-related changes in postural control during quiet standing through Linear Discriminant Analysis. BioMedical Engineering OnLine, 2009, 8, 35. | 1.3 | 65 |
| 6 | Gait stability, variability and complexity on inclined surfaces. Journal of Biomechanics, 2017, 54, 73-79. | 0.9 | 43 |
| 7 | Local dynamic stability and gait variability during attentional tasks in young adults. Gait and Posture, 2017, 55, 105-108. | 0.6 | 33 |
| 8 | On the Use of *t*-Distributed Stochastic Neighbor Embedding for Data Visualization and Classification of Individuals with Parkinson's Disease. Computational and Mathematical Methods in Medicine, 2018, 2018, 1-17. | 0.7 | 33 |
| 9 | Objective Assessment of Bradykinesia Estimated from the Wrist Extension in Older Adults and Patients with Parkinson's Disease. Annals of Biomedical Engineering, 2017, 45, 2614-2625. | 1.3 | 32 |
| 10 | Empirical Mode Decomposition and its Extensions Applied to EEG Analysis: A Review. Advances in Data Science and Adaptive Analysis, 2018, 10, 1840001. | 0.2 | 29 |
| 11 | Indoor navigation with mobile augmented reality and beacon technology for wheelchair users. , 2017, , . | | 23 |
| 12 | Recognition of Intensive Valence and Arousal Affective States via Facial Electromyographic Activity in Young and Senior Adults. PLoS ONE, 2016, 11, e0146691. | 1.1 | 23 |
| 13 | Back Pain Prevalence and Its Associated Factors in Brazilian Athletes from Public High Schools: A Cross-Sectional Study. PLoS ONE, 2016, 11, e0150542. | 1.1 | 23 |
| 14 | A comparison of coordination and its variability in lower extremity segments during treadmill and overground running at different speeds. Gait and Posture, 2020, 79, 139-144. | 0.6 | 22 |
| 15 | Single leg balancing in ballet: Effects of shoe conditions and poses. Gait and Posture, 2013, 37, 419-423. | 0.6 | 21 |
| 16 | Linear and Nonlinear Gait Features in Older Adults Walking on Inclined Surfaces at Different Speeds. Annals of Biomedical Engineering, 2017, 45, 1560-1571. | 1.3 | 21 |
| 17 | Cardiac Autonomic Modulation and the Kinetics of Heart Rate Responses in the On- and Off-Transient during Exercise in Women with Metabolic Syndrome. Frontiers in Physiology, 2017, 8, 542. | 1.3 | 20 |
| 18 | Feature visualization and classification for the discrimination between individuals with Parkinson's disease under levodopa and DBS treatments. BioMedical Engineering OnLine, 2016, 15, 169. | 1.3 | 18 |

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|---|---------|----|-----------|
| 19 | Pelvic movement variability of healthy and unilateral hip joint involvement individuals. Biomedical Signal Processing and Control, 2017, 32, 10-19. | 3.5 | 18 |
| 20 | Footwear and Foam Surface Alter Gait Initiation of Typical Subjects. PLoS ONE, 2015, 10, e0135821. | 1.1 | 17 |
| 21 | Effects of general fatigue induced by incremental maximal exercise test on gait stability and variability of healthy young subjects. Journal of Electromyography and Kinesiology, 2016, 30, 161-167. | 0.7 | 16 |
| 22 | Postural Control of Elderly Adults on Inclined Surfaces. Annals of Biomedical Engineering, 2017, 45, 726-738. | 1.3 | 16 |
| 23 | Extraction of motor unit action potentials from electromyographic signals through generative topographic mapping. Journal of the Franklin Institute, 2007, 344, 154-179. | 1.9 | 15 |
| 24 | Investigation of Age-Related Changes in Physiological Kinetic Tremor. Annals of Biomedical Engineering, 2010, 38, 3423-3439. | 1.3 | 15 |
| 25 | A simple, reliable method to determine the mean gait speed using heel markers on a treadmill. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 901-904. | 0.9 | 15 |
| 26 | Immunosensor for electrodetection of the C-reactive protein in serum. Journal of Solid State Electrochemistry, 2018, 22, 1365-1372. | 1.2 | 15 |
| 27 | Mouse emulation based on facial electromyogram. Biomedical Signal Processing and Control, 2013, 8, 142-152. | 3.5 | 14 |
| 28 | Effects of backpack load and positioning on nonlinear gait features in young adults. Ergonomics, 2018, 61, 720-728. | 1.1 | 14 |
| 29 | Effects of inclined surfaces on gait variability and stability in unilateral lower limb amputees. Medical and Biological Engineering and Computing, 2019, 57, 2337-2346. | 1.6 | 12 |
| 30 | Discrimination between healthy and patients with Parkinson's disease from hand resting activity using inertial measurement unit. BioMedical Engineering OnLine, 2021, 20, 50. | 1.3 | 12 |
| 31 | The comparison of ground reaction forces and lower limb muscles correlation and activation time delay between forward and backward walking. Gait and Posture, 2017, 58, 380-385. | 0.6 | 11 |
| 32 | Linear and nonlinear measures of gait variability after anterior cruciate ligament reconstruction. Journal of Electromyography and Kinesiology, 2019, 46, 21-27. | 0.7 | 11 |
| 33 | On the use of histograms of oriented gradients for tremor detection from sinusoidal and spiral handwritten drawings of people with Parkinson's disease. Medical and Biological Engineering and Computing, 2021, 59, 195-214. | 1.6 | 11 |
| 34 | A computational method for recording and analysis of mandibular movements. Journal of Applied Oral Science, 2008, 16, 321-327. | 0.7 | 10 |
| 35 | Task-Specific Tremor Quantification in a Clinical Setting for Parkinson's Disease. Journal of Medical and Biological Engineering, 2020, 40, 821-850. | 1.0 | 10 |
| 36 | Identification of arthropathy and myopathy of the temporomandibular syndrome by biomechanical facial features. BioMedical Engineering OnLine, 2020, 19, 22. | 1.3 | 10 |

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| 37 | Compartmental models of mammalian motoneurons of types S, FR and FF and their computer simulation. Computers in Biology and Medicine, 2007, 37, 842-860. | 3.9 | 9 |
| 38 | Body composition of chronic renal patients: anthropometry and bioimpedance vector analysis. Revista Latino-Americana De Enfermagem, 2013, 21, 1240-1247. | 0.4 | 9 |
| 39 | Use of a backpack alters gait initiation of high school students. Journal of Electromyography and Kinesiology, 2016, 28, 82-89. | 0.7 | 9 |
| 40 | Center of pressure and center of mass behavior during gait initiation on inclined surfaces: A statistical parametric mapping analysis. Journal of Biomechanics, 2017, 56, 10-18. | 0.9 | 9 |
| 41 | Head orientation and gait stability in young adults, dancers and older adults. Gait and Posture, 2020, 80, 68-73. | 0.6 | 9 |
| 42 | Effects of backpack loads and positions on the variability of gait spatiotemporal parameters in young adults. Research on Biomedical Engineering, 2017, 33, 277-284. | 1.5 | 8 |
| 43 | Lower-Extremity Intra-Joint Coordination and Its Variability between Fallers and Non-Fallers during Gait. Applied Sciences (Switzerland), 2021, 11, 2840. | 1.3 | 8 |
| 44 | Standing balance in preschoolers using nonlinear dynamics and sway density curve analysis. Journal of Biomechanics, 2019, 82, 96-102. | 0.9 | 7 |
| 45 | Optimality in the encoding/decoding relations of motoneurones and muscle units. BioSystems, 2002, 67, 113-119. | 0.9 | 6 |
| 46 | Electromyographic analysis of the gait cycle phases of boxer dogs. Arquivo Brasileiro De Medicina Veterinaria E Zootecnia, 2016, 68, 931-937. | 0.1 | 6 |
| 47 | Effects of Four Days Hiking on Postural Control. PLoS ONE, 2015, 10, e0123214. | 1.1 | 5 |
| 48 | Margins of stability of persons with transtibial or transfemoral amputations walking on sloped surfaces. Journal of Biomechanics, 2021, 123, 110453. | 0.9 | 5 |
| 49 | The influence of a protocol of aquatic exercises in postural control of obese elderly. Revista Andaluza De Medicina Del Deporte, 2018, 11, 69-74. | 0.1 | 4 |
| 50 | Gait variability and symmetry assessment with inertial sensors for quantitative discrimination of Trendelenburg sign in total hip arthroplasty patients: a pilot study based on convenience sampling. Research on Biomedical Engineering, 2018, 34, 65-72. | 1.5 | 4 |
| 51 | Effects of triceps surae fatigue and weight training level on gait variability and local stability in young adults. Medical and Biological Engineering and Computing, 2020, 58, 1791-1802. | 1.6 | 4 |
| 52 | Discrimination capability of linear and nonlinear gait features in group classification. Medical Engineering and Physics, 2021, 93, 59-71. | 0.8 | 4 |
| 53 | Prevalence of distinct types of hardware failures related to deep brain stimulation. Neurosurgical Review, 2022, 45, 1123-1134. | 1.2 | 4 |
| 54 | Affective Embedded Systems: a Requirement Engineering Approach. International Journal of Computer Trends and Technology, 2014, 8, 70-75. | 0.1 | 3 |

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| 55 | Validation of a protocol to evaluate maximal expiratory pressure using a pressure transducer and a signal conditioner. Anais Da Academia Brasileira De Ciencias, 2011, 83, 967-972. | 0.3 | 2 |
| 56 | Use of Non-contact Capacitive Sensors to Detect Hand Gestures. IFMBE Proceedings, 2019, , 517-522. | 0.2 | 2 |
| 57 | On the Use of Non-Contact Capacitive Sensors for the Assessment of Postural Hand Tremor of Individuals with Parkinson's Disease. , 2019, 2019, 6591-6594. | | 2 |
| 58 | Influence of sampling frequency and number of strides on recurrence quantifiers extracted from gait data. Computers in Biology and Medicine, 2020, 119, 103673. | 3.9 | 2 |
| 59 | Open-source data management system for Parkinson's disease follow-up. PeerJ Computer Science, 2021, 7, e396. | 2.7 | 2 |
| 60 | Effects of additional load at different heights on gait initiation: A statistical parametric mapping of center of pressure and center of mass behavior. PLoS ONE, 2021, 16, e0242892. | 1.1 | 2 |
| 61 | Pelvic floor pressure distribution profile in urinary incontinence: a classification study with feature selection. PeerJ, 2019, 7, e8207. | 0.9 | 2 |
| 62 | Accommodation in motoneuron models with passive dendrite: Response to linearly rising currents. Neurocomputing, 2009, 72, 3396-3398. | 3.5 | 1 |
| 63 | Proposal of a three-dimensional brain mapping system based on the quantitative analysis of the electroencephalographic signal. , 2014, , . | | 1 |
| 64 | Efficiency of AR, MA and ARMA Models in Prediction of Raw and Filtered Center of Pressure Signals. IFMBE Proceedings, 2019, , 187-191. | 0.2 | 1 |
| 65 | The effects of general fatigue induced by incremental exercise test and active recovery modes on energy cost, gait variability and stability in male soccer players. Journal of Biomechanics, 2020, 106, 109823. | 0.9 | 1 |
| 66 | A non-contact system for the assessment of hand motor tasks in people with Parkinson's disease. SN Applied Sciences, 2021, 3, 1. | 1.5 | 1 |
| 67 | Evaluation of Deep Brain Stimulation Effect on Motor Signs of Individuals with Movement Disorders Through Gaussian Models. , 2021, , . | | 1 |
| 68 | Gait Initiation in Older People: Concepts, Clinical Implications and Methodology. , 2017, , 349-370. | | 1 |
| 69 | Inicialização da marcha no desenvolvimento do andar independente em crianças de 1.3 anos a 4 anos: estudo preliminar. Pensar A Prática, 0, 23, . | 0.2 | 1 |
| 70 | Low Amplitude Hand Rest Tremor Assessment in Parkinson's Disease Based on Linear and Nonlinear Methods. IFMBE Proceedings, 2022, , 301-306. | 0.2 | 1 |
| 71 | Anticipatory phase of gait initiation on horizontal, upward and downward inclined surfaces. , 2014, , . | | 0 |
| 72 | Analysis of postural control in elderly on horizontal and inclined surfaces using classical descriptors and DFA. , 2014, , . | | 0 |

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| 73 | Gait variability analysis through phase portrait estimated from the Hilbert transform. Computer Methods in Biomechanics and Biomedical Engineering, 2018, 21, 645-653. | 0.9 | 0 |
| 74 | Comparative evaluation of methods for the detection of electrodermal responses to multilevel intensity thermal noxious stimuli. Research on Biomedical Engineering, 2019, 35, 183-192. | 1.5 | 0 |
| 75 | Spatial Quantification of Facial Electromyography Artifacts in the Electroencephalogram. IFMBE Proceedings, 2019, , 447-454. | 0.2 | 0 |
| 76 | Gait Initiation Process: Comparing Force and Pressure Platforms Data. IFMBE Proceedings, 2019, , 225-228. | 0.2 | 0 |
| 77 | On the Use of Inertial Sensors for the Assessment of Step and Stride Time Variability in Individuals with Parkinsonâ€™s Disease: Preliminary Study. IFMBE Proceedings, 2019, , 327-331. | 0.2 | 0 |
| 78 | Facial Muscular Humanâ€"Computer Interface at a Motor Unit Level. Advances in Data Science and Adaptive Analysis, 2019, 11, 1950008. | 0.2 | 0 |
| 79 | AcomodaÃ§Ã£o Em Modelos De MotoneurÃ´nios De Dendrito Passivo: Resposta a Correntes Em Rampa. Learning and Nonlinear Models, 2008, 6, 68-80. | 0.2 | 0 |
| 80 | InteraÃ§Ãµes nÃ£o lineares na arborizaÃ§Ã£o dendrÃtica de modelos de motoneurÃ´nios. Revista Brasileira De Engenharia Biomedica, 2010, 26, 235-248. | 0.3 | 0 |
| 81 | Functional Movement Modeling For Robot-Assisted Upper Limb Rehabilitation: The Case of a Simulated Reduced-Freedom Anthropomorphic Manipulator. Revista Brasileira De Engenharia Biomedica, 2012, 28, 3-10. | 0.3 | 0 |
| 82 | PERFIL ANTROPOMÃ‰TRICO DE HOMENS COM DOENÃ‡A RENAL CRÃ"NICA SUBMETIDOS AO TRATAMENTO DIALÃTICO.. Pensar A PrÃ¡tica, 2013, 16, . | 0.2 | 0 |
| 83 | Uma nova proposta para modelos de motoneurï¿½nios de diferentes tamanhos. , 0, , . | | 0 |
| 84 | ARQUITETURA DE UM SISTEMA PARA MONITORAMENTO PROLONGADO DE SINAIS CLÃNICOS DA DOENÃ‡A DE PARKINSON. , 0, , . | | 0 |
| 85 | ESTUDO PRELIMINAR DA INICIALIZAÃ‡ÃƒO DA MARCHA EM CRIANÃ‡AS TÃPICAS DE 1 A 5 ANOS QUE SE ENCONTRAM NA FASE DO DESNVOLVIMENTO DO ANDAR INDEPENDENTE. , 2018, , . | | 0 |
| 86 | UMA REVISÃƒO DOS MÃ‰TODOS PARA AVALIAÃ‡ÃƒO DA BRADICINESIA PARKINSONIANA UTILIZANDO SENSORES INERCIAIS. , 2018, , . | | 0 |
| 87 | INICIALIZAÃ‡ÃƒO DO PASSO NA LOCOMOÃ‡ÃƒO INFANTIL: ESTUDO PILOTO. , 2018, , . | | 0 |
| 88 | DESCONFORTO NA REGIÃƒO PLANTAR DOS PÃ‰S E INCIDÃŠNCIA DE DESCONFORTO EM ANDARILHOS PARTICPANTES DA CAMINHADA ECOLÃ"GICA DO ESTADO DE GOIÃS. , 2018, , . | | 0 |
| 89 | Methodology for Quantification of Frontal Muscle Electromyography Contamination in the Electroencephalogram. IFMBE Proceedings, 2019, , 535-539. | 0.2 | 0 |
| 90 | Efeito do espelho na oscilaÃ§Ã£o postural de bailarinas. Revista Portuguesa De CiÃªncias Do Desporto, 2019, 19, 43-53. | 0.0 | 0 |

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| 91 | Performance of Contemporary Dancers in Drop Jump Test Assessed by Reactive Strength Index. IFMBE Proceedings, 2019, , 333-336. | 0.2 | 0 |
| 92 | Efeito do espelho na oscilaÃ§Ã£o postural de bailarinas. Revista Portuguesa De CiÃªncias Do Desporto, 2019, 19, 42-52. | 0.0 | 0 |
| 93 | Quantification of Coordination Variability During Gait in Fallers and Non-fallers Older Adults at Different Speeds. IFMBE Proceedings, 2020, , 964-969. | 0.2 | 0 |
| 94 | Classification of Lower Limb Amputees Gait Using Machine Learning Algorithms. IFMBE Proceedings, 2020, , 950-954. | 0.2 | 0 |