



# IEEE Latin America Transactions

NOVEMBER 2024, Volume 22 Issue 11

IEEEXplore, DOI, ISI, ISSN 1548-0992

## REGULAR ISSUE: Electronics, Energy and Computing

Table of Contents .....	891
Deep Learning and Object Detection for Water Level Measurement using Patterned Visual Markers G. M. Domingues Filho, C. M. Ranieri, S. N. Matos, R. I. Meneguette, and J. Ueyama .....	892
D-AI <sup>2</sup> -M: Ethanol Production Forecasting in Brazil Using Data-Centric Artificial Intelligence Methodology A. Mello, L. Giusti, T. Tavares, F. Alexandrino, G. Guedes, J. Soares, R. Barbastefano, F. Porto, D. Carvalho, and E. Ogasawara .....	899
A Sustainable Rural Electrification of Morocco using Stevia Biomass Power Generation: Lessons for Paraguay M. Mahdavi, A. Awaifo, and F. Jurado .....	911
An Ultra High Gain Switched-Capacitor Boost DC-DC Converter with Reduced Ripple Current M. F. Baba, A. V. Giridhar, B. L. Narasimharaju, and H. S. Krishnamoorthy .....	920
Minimization of Flux and Torque Ripples of FPOEW Induction Motor with FCS-MPTC using Synthetic Voltage Vectors N. Rayavarapu, S. Devabhaktuni, and C. V. S. Reddy .....	933
Bidirectional Protection for DC Systems based on di/dt Behavior J. Vázquez, E. J.J. Rodríguez, J. Arau, and N. Vázquez .....	945
Bioenergy and Electric Power Generation from Agricultural Residues in Morocco: Lessons for Brazil M. Mahdavi, A. Awaifo, and F. Jurado .....	952
Low Cost and Optimized FPGA-HIL Real Time Simulation of a Boost Converter Powered by a Photovoltaic Panel R. O. Guerrero, E. R. Segura, J. M. Nolasco, and F. R. García .....	962
High Step-up DC-DC Converter with Reconfiguration Capability K. Velmajala, and S. R. Sandepudi .....	971
Design and Implementation of a Low Cost Isotropic Electric Field Sensor for SAR Measurements M. Quispe, J. Samaniego, J. Olivares, R. Adriano, B. Pérez, and S. Inca .....	983