1. Record Nr. UNINA9910847584703321 Rocha Álvaro Autore Titolo Developments and Advances in Defense and Security: Micrads 2023 Pubbl/distr/stampa Singapore:,: Springer Singapore Pte. Limited,, 2024 ©2024 **ISBN** 981-9988-94-2 Edizione [1st ed.] 1 online resource (0 pages) Descrizione fisica Smart Innovation, Systems and Technologies Series;; v.380 Collana Altri autori (Persone) Fajardo-ToroCarlos Hernán RodríguezJosé María Riola Disciplina 355.03 Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Intro -- Preface -- Contents -- About the Editors -- Part I Nota di contenuto Administration, Economy, and Logistics Applied to Defense -- 1 Strategic Positions of Actors Related to the Defense Industry in Ecuador -- 1.1 Introduction -- 1.2 Materials and Methods -- 1.3 Results -- 1.4 Conclusions -- References -- 2 Critical Factors on Lean Implementation to the Portuguese Aeronautic Industry -- 2.1 Introduction -- 2.2 Literature Review -- 2.3 Methodology -- 2.4 Results and Discussion -- 2.5 Conclusions -- References -- 3 Prioritization of Maintenance Repair Overhaul Capabilities Development for Military Aviation -- 3.1 Introduction -- 3.2 Methodology -- 3.3 Analysis and Results -- 3.4 Conclusion -- References -- Part II Artificial Intelligence and Machine Learning -- 4 Artificial Intelligence and Its Impact on Digital Transformation Processes -- 4.1 Introduction -- 4.2 Methodology -- 4.3 Artificial Intelligence-Digital Transformation --4.3.1 The Growth of Artificial Intelligence in Companies -- 4.3.2 How

Transformation in a Data-Driven World -- 4.4 Results -- 4.4.1 Relationship Between Artificial Intelligence and Digital Transformation -- 4.4.2 Main Challenges and Opportunities Presented by the Implementation of Artificial Intelligence in Digital

Companies Are Using Artificial Intelligence -- 4.3.3 Technology, Key

in Digital Transformation -- 4.3.4 The Importance of Digital

Transformation Processes -- 4.4.3 Discussion -- 4.5 Conclusion --

References -- Part III Chemical, Biological, and Nuclear Defense -- 5 Evaluation of Different Substrates for Electrodeposition of Riboflavin Films for Determination of Boric Acid in Eye Drops -- 5.1 Introduction -- 5.1.1 Carbon Composite Materials as Substrates for Poly Riboflavin -- 5.2 Spectrometric Techniques for Determination of Boron as a Comparison -- 5.3 Electroanalytical Techniques for Determination of Boron.

5.4 Objectives -- 5.5 Materials and Methods -- 5.6 Voltammetric Determination of Boric Acid in Eve Drops Samples -- 5.7 Comparative Method UV-Vis Absorption Spectrophotometry -- 5.8 Results and Discussion -- 5.8.1 Sensors Evaluation -- 5.8.2 Electrosynthesis and Characterization of Poly Riboflavin -- 5.8.3 Use of Contact Angle Measurements (normal upper Theta) to Evaluate the Interaction Between the Different Substrates and the Film Monomer -- 5.8.4 Evaluation of Topography and Roughness Using Atomic Force Microscopy (AFM) -- 5.8.5 Determination of Boric Acid -- 5.8.6 Determination of Boric Acid in Eye Drops -- 5.8.7 Comparative Spectrophotometric Method -- 5.9 Conclusions and Perspectives --References -- Part IV Cybersecurity and Cyberdefense -- 6 Governance Under Threat? Al in the Social Rehabilitation System of Ecuador: An Application of the Bayesian Model -- 6.1 Introduction -- 6.1.1 Approach to Governance -- 6.1.2 Governance Proponents -- 6.1.3 Particularities of Governance -- 6.1.4 Benefits of Governance -- 6.1.5 Limitations of Governance -- 6.2 What Do We Know About Governance? -- 6.3 Threats to Governance in Ecuador -- 6.4 Artificial Intelligence as a Solution to Governance? -- 6.5 Methodology -- 6.6 Results -- 6.7 Discussion -- 6.8 Conclusions -- 6.9 Recommendations -- References -- 7 Integrating Random Linear Network Coding and Content Delivery Networks for Reduced Latency in Heterogeneous Network Processing of Mobile Devices -- 7.1 Introduction -- 7.2 State of Art -- 7.3 Coding and Distributing RLNC by CDN and Heterogeneous Devices -- 7.3.1 Mathematical Formulation of RLNC -- 7.4 Design of Experiments -- 7.5 Analysis of Results -- 7.6 Conclusions -- References -- Part V Defense Engineering (General) -- 8 Artificial Intelligence Applications in Military Logistics Operations -- 8.1 Introduction -- 8.2 Development -- 8.2.1 Logistics 4.0.

8.2.2 The Characteristics of Logistics Use in Modern Conflicts -- 8.2.3 The Application of AI in Military Operations Logistics -- 8.3 Final Considerations -- References -- Part VI Information and Communication Technology in Education -- 9 Web 4.0 Tools Applied to Improve Collaborative Learning in Object-Oriented Programming -- 9.1 Introduction -- 9.2 Methodology -- 9.3 Results --9.4 Discussion -- References -- 10 Using Artificial Intelligence to Prevent Drowsiness Based on Facial Recognition -- 10.1 Introduction -- 10.2 Conception -- 10.3 Implementation and Results -- 10.4 Futures Improvements -- 10.5 Conclusion -- References -- 11 Impact of an Augmented Reality Environment in Learning Computer Networks Principles -- 11.1 Introduction -- 11.2 Materials and Methods --11.2.1 Population and Sample Size -- 11.2.2 Gathering Data -- 11.2.3 Steps on Data Analysis -- 11.2.4 Survey -- 11.2.5 Augmented Reality-Based Software App -- 11.3 Evaluation of Results -- 11.4 Conclusions -- References -- 12 The Impact of Numerical Shifts on the Field Artillery Firing Accuracy -- 12.1 Introduction -- 12.2 Call for Fire --12.3 Approximations in Grid Coordinate Locations -- 12.4 Approximations in Polar Plot Location -- 12.5 Approximations in Location by Metric VPI from an RP -- 12.6 Comparative Synthesis --12.7 Conclusions -- References -- 13 Self-perception Scale on Videoconferencing in University Students -- 13.1 Introduction --

13.1.1 Videoconference -- 13.1.2 Psychopedagogical -- 13.1.3 Interactivity -- 13.1.4 Technological Capacity -- 13.2 Methodology --13.3 Results -- 13.3.1 Exploratory Factorial Analysis -- 13.3.2 Confirmatory Factor Analysis -- 13.4 Conclusions -- References -- 14 Management of Operational Usability Requirements: The Key to Saving Resources and Good Performance of Military Materials -- 14.1 Introduction -- 14.1.1 Technology Readiness Level. 14.1.2 Operational Requirements on Brazilian Army -- 14.1.3 Research Problems -- 14.1.4 Objective -- 14.2 Methods -- 14.3 Results and Discussion -- 14.3.1 Military Warfare Education Line -- 14.3.2 Operational Requirements for the Last 5 years in the Brazilian Army --14.3.3 One Proposal for Saving Resources and Improving Equipment Usability -- 14.4 Conclusion -- References -- 15 ChatGPT to Motivate Critical Thinking in the Teaching-Learning Process of First Semester Students at the Technical University of Ambato -- 15.1 Introduction --15.2 State of the Art -- 15.2.1 Critical Thinking and Higher Education -- 15.2.2 Test to Evaluate the PC of University Students -- 15.2.3 ChatGPT -- 15.3 Methodology -- 15.4 Results -- 15.5 Conclusions y Future Works -- References -- 16 Digital and Traditional Channels in the Internal Communication of a University in Peru -- 16.1 Introduction -- 16.2 Literature Review -- 16.2.1 Internal Communication at the University -- 16.2.2 Traditional Media in Internal Communication -- 16.2.3 Digital Media in Internal Communication --16.3 Methods -- 16.3.1 Longitudinal Survey Study -- 16.3.2 Opinion Analysis Study -- 16.4 Results -- 16.4.1 Sample Description -- 16.4.2 Q1: What is the Frequency of Communication with the Authorities? --16.4.3 Q2: What is the Frequency of Receiving Notifications? -- 16.4.4 Q3: What is the Frequency of Traditional Media Usage? -- 16.4.5 Q4: What is the Frequency of Use of Digital Media? -- 16.5 Q5: What Are the Opinions of the Members About Internal Communication? -- 16.6 Discussion -- 16.7 Conclusion -- References -- Part VII Leadership and e-Leadership -- 17 Characteristics of Leadership in a Military Context: Systematic Literature Review by PRISMA Method -- 17.1 Introduction -- 17.2 Methodology -- 17.3 Main Findings and Discussion -- 17.4 Conclusion -- References -- Part VIII Military Marketing. 18 Brand Image Mediated by Satisfaction Through Organizational Culture and Cultural Hierarchy. A Study in the Technical School of the Army -- 18.1 Introduction -- 18.2 Methodology -- 18.3 Results -- 18.4 Conclusions -- References -- Part IX Simulation and Computer

18 Brand Image Mediated by Satisfaction Through Organizational Culture and Cultural Hierarchy. A Study in the Technical School of the Army -- 18.1 Introduction -- 18.2 Methodology -- 18.3 Results -- 18.4 Conclusions -- References -- Part IX Simulation and Computer Vision in Military Applications -- 19 Open RCS: An Open-Source Platform for Numerical Evaluation of Radar Cross Section of 3D Targets -- 19.1 Introduction -- 19.2 Theoretical Foundation: Radar Cross Section (RCS) -- 19.3 Computational Methods Applied by RCS Softwares -- 19.4 Open RCS: An Open-Source Platform for Numerical Evaluation of Radar Cross Section of 3D Targets -- 19.5 Conclusions and Future Works -- References -- Author Index.