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Research Articles

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Impact of Socioeconomic Factors on Public Health Initiatives in Urban and Rural Settings

Anik Chowdhury, Soledad Jiménez, Yusuf Al-Hashimi

University of Dhaka, Dhaka, Bangladesh; University of Costa Rica, San José, Costa Rica; University of New Mexico, Albuquerque, USA

Keywords: public health, socioeconomic factors, urban health, rural health, health initiatives, cross-sectional analysis

2.

Investigating the Mechanisms of Viral Evolution: Insights from Comparative Genomic Analysis

Katarina Novak, Akira Tanaka, Amina Diallo

University of Graz, Graz, Austria; University of Rijeka, Rijeka, Croatia; Cheikh Anta Diop University, Dakar, Senegal

Keywords: viral evolution, comparative genomics, mutation, recombination, selection pressure, RNA viruses

3.

Enhancing Data Mining Techniques Using Hybrid Algorithms for Optimized Decision Making

Yukiko Tanaka, Nabil Al-Rashid, Pedro González

Yukiko Tanaka: University of Vermont, Burlington, USA; Nabil Al-Rashid: University of New Mexico, Albuquerque, USA; Pedro González: National University of La Plata, La Plata, Argentina

Keywords: data mining, hybrid algorithms, machine learning, predictive performance, data pattern recognition, decision-making

4.

Epigenetic Regulation in Cellular Differentiation: Mechanistic Insights and Therapeutic Potential

Anna Kowalska, Ahmed Al-Mansour, Meaza Kebede

Nicolaus Copernicus University, Toruń, Poland; Al-Baath University, Homs, Syria; Addis Ababa University, Addis Ababa, Ethiopia

Keywords: epigenetics, cellular differentiation, DNA methylation, histone modification, ChIP-seq, therapeutic potential

5.

Analyzing Multispecies Interactions: A Study on Biodiversity and Ecosystem Dynamics

Katarzyna Nowak, Chen Wei, Amina El-Khatib

Nicolaus Copernicus University, Toruń, Poland; University of Graz, Graz, Austria; Federal University of Pernambuco, Recife, Brazil

Keywords: species interactions, biodiversity, ecosystem dynamics, mutualism, network analysis, keystone species, conservation strategies

6.

Exploring Quantum Phase Transitions in Novel Two-Dimensional Chalcogenide Compounds

Dr. Helena Schmidt, Dr. Ryuichi Nakamura, Dr. Amina El-Amin

Department of Physics, University of the Philippines Diliman, Quezon City, Philippines; Department of Physics, Makerere University, Kampala, Uganda; Department of Physics, University of Khartoum, Khartoum, Sudan

Keywords: quantum phase transitions, two-dimensional materials, chalcogenide compounds, density functional theory, Monte Carlo simulations, topological insulators

7.

Assessing the Impact of Behavioral Finance on Emerging Markets: A Comparative Analysis

Aisha El-Sayed, Hiroshi Tanaka, Luis Fernando Alvarez

University of Manitoba, Winnipeg, Canada; University of Wollongong, Wollongong, Australia; University of Canterbury, Christchurch, New Zealand

Keywords: behavioral finance, emerging markets, financial decision-making, overconfidence, loss aversion, market volatility

8.

Analytical Investigation of Prime Number Distribution through Additive Number Theoretic Functions

Hiroshi Tanaka, Fatemeh Rahimi, Carlos Mendoza

Hiroshi Tanaka: Kanazawa University, Kanazawa, Japan; Fatemeh Rahimi: Ferdowsi University of Mashhad, Mashhad, Iran; Carlos Mendoza: Yarmouk University, Irbid, Jordan

Keywords: prime numbers, number theory, additive functions, asymptotic analysis, computational simulations, prime distribution

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