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Table of Contents

Volume 63, Issue 12 — December 2023

Research Articles

1.

Design, Synthesis and Comparative Study of Anti-Microbial Activities on Barbituric acid and Thiobarbituric acid Based Chalcone Derivatives Bearing the Pyrimidine Nucleus

Bhaveshkumar D. Dhorajiya, Bharatkumar Z. Dholakiya

Department of Chemistry, Gujarat University, India

Keywords: Antibacterial activity, Antifungal activity, Babiturates, Chalcones, Structure Activity Relationship.

2.

Identification System of Image Fusion by Evolutionary Neural Network

Wei Zhang, Raj Sharma

Faculty of Computer Science, Technical University of Munich, Germany

Keywords: Identification, Image fusion, Neural Network, Genetic Algorithm.

3.

Wavelet Method for Numerical Solution of Second Order Hyperbolic Equations

Abdul Hannan Choudhury

Department of Mathematics, University of Dhaka, Bangladesh

Keywords: Newmark schemes, Semidiscrete approximations, Stability, Wave equation,\nWavelet-Galerkin method

4.

Extension of identities due to Preece and Bailey involving product of generalized hypergeometric function 2F2

Medhat A. Rakha\nMohammed M. Awad,\nArjun K. Rathie

Department of Mathematics, Cairo University, Egypt

Keywords: Generalized Hypergeometric Function; Preece Identity, Bailey Identity, Kummer Second Summation Theorem

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5.

Effect of Partnership Parenting on the Achievements of Pupils in Elementary Schools

Dijana Karuovic, Ivan Tasic, Dragana Glusac, Miljana Dimitric

Faculty of Education, University of Novi Sad, Serbia

Keywords: child; family; parent; punishment; reward

6.

Ranking Innovative Military Education Criteria Applying a Fuzzy Integral Approach

Alptekin Erkollar, Kerim GÃ¶ztepe, Birgit Oberer

Department of Military Sciences, Turkish War College, Turkey

Keywords: Innovation criteria selection, choquet integral, military education

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7.

Giant synovial chondromatosis of Hoffaâ€™s body: case report and review of the literature.

Lorenzo Franco-de la Torre, Mercedes Gonzalez-Hita, Juan Luis Alcala-ZermeÃ±o, Ana Teresa Montes-Leyva, Martin Vargas-MagaÃ±a, Abraham Zepeda-Moreno, Jose Rafael Villafan-Bernal, Sergio Sanchez-Enriquez.

Department of Orthopedics, University of Madrid, Spain

Keywords: Synovial chondromatosis; Arthroscopy; Knee joint; Hoffa’s body; Synovial metaplasia

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8.

Influence of relative roughness pitch on heat transfer and flow friction in a ribbed rectangular solar air heater

Anil Singh Yadav

Department of Mechanical Engineering, Indian Institute of Technology, Kanpur, India

Keywords: Solar Energy; Solar Air Heater; Artificial Roughness; Thermal Enhancement Factor.

9.

A Novel approach to Fault Simulation and Testing in combinational circuits using Differential Evolution

Dhiraj, Seema Verma, Rajesh Kumar

Department of Electronics and Communication Engineering, National Institute of Technology, Rourkela, India

Keywords: Combinatorial Optimization, Evolutionary Algorithm, Differential Algorithm, Automatic test pattern generator, Fault coverage, Global optimum

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10.

Convenient Synthesis of 4-oxoquinoline derivatives

Carlos Santos, James Wilson, Robert Thompson, Michael Anderson

Department of Chemistry, University of Toronto, Canada

Keywords: Quinoline, glycine, D-glutamic acid, diazomethane, chloromethyl ketone

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11.

Synergistic Effects of Metal-Oxide Nanocomposites in Catalytic Hydrogenation Reactions

Ioannis Papadopoulos, Meiling Zhang, Nuru Jemal

University of Patras, Patras, Greece; Lanzhou University, Lanzhou, China; Addis Ababa University, Addis Ababa, Ethiopia

Keywords: catalysis, nanocomposites, hydrogenation, metal-oxide, palladium, titanium oxide

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12.

Understanding the Influence of Climate Change on Ecosystem Dynamics in Diverse Global Biomes

Jonas Kazlauskas, Meiling Zhao, Ahmed El-Sayed, Gabriela Torres

Vilnius University, Vilnius, Lithuania; Lanzhou University, Lanzhou, China; University of Patras, Patras, Greece

Keywords: ecosystem dynamics, climate change, biodiversity, species distribution, carbon sequestration, nutrient cycling

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13.

Enhanced Pattern Recognition in Large Datasets Using Hybrid Clustering and Classification Techniques

Hiroshi Nakamura, Aisha Al-Farsi, Juan Carlos Pérez

Kyungpook National University, Daegu, South Korea; University of Nairobi, Nairobi, Kenya; University of Vermont, Burlington, USA

Keywords: data mining, pattern recognition, clustering, classification, k-means, support vector machine, hybrid algorithm

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14.

Exploring Non-Abelian Gauge Theories: Implications for Dark Matter in Particle Physics

Ezra Mokaya, Caroline Ng, Alejandro Torres, Ibrahim Al-Qadi

University of Nairobi, Nairobi, Kenya; Universiti Sains Malaysia, Penang, Malaysia; University of Antioquia, Medellín, Colombia

Keywords: non-Abelian gauge theories, SU(3) symmetry, dark matter, particle physics, collider experiments, cosmic evolution

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15.

Impact of Soil Microbial Dynamics on Crop Yield in Semi-Arid Regions: A Comparative Study

Rana Al-Sarraf, Miguel Lopez, Haruto Takahashi

Ferdowsi University of Mashhad, Mashhad, Iran; University of Tasmania, Hobart, Australia; University of Canterbury, Christchurch, New Zealand

Keywords: soil microbiology, crop yield, semi-arid regions, microbial diversity, 16S rRNA sequencing, sustainable agriculture

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16.

Advanced Thermodynamic Cycles for Sustainable Energy Harvesting in Tropical Climates

Ibrahim Al-Mansouri, Chaska Quispe, Aisha Mwinyimbegu

Ibrahim Al-Mansouri: University of the South Pacific, Suva, Fiji; Chaska Quispe: Pontifical Catholic University of Peru, Lima, Peru; Aisha Mwinyimbegu: University of Dar es Salaam, Dar es Salaam, Tanzania

Keywords: thermodynamic cycles, sustainable energy, tropical climates, Rankine cycle, computational fluid dynamics, energy efficiency

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17.

Cross-Cultural Behavioral Patterns: A Comparative Analysis of Social Norms and Adaptations

Lucie Nováková, Rizky Haryanto, Amina Al-Mansoori

Palacký University, Olomouc, Czech Republic; Gadjah Mada University, Yogyakarta, Indonesia; University of Zambia, Lusaka, Zambia

Keywords: behavioral analysis, cross-cultural study, social norms, cultural psychology, adaptation patterns, interpersonal interactions

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18.

Influence of Dietary Components on Gut Microbiome Diversity: A Global Comparative Study

Lena Müllner, Dae-jung Kim, Amina Al-Sarraf

Al-Nahrain University, Baghdad, Iraq; University of Concepción, Concepción, Chile; University of Vermont, Burlington, USA

Keywords: gut microbiome, dietary components, microbial diversity, high-throughput sequencing, macronutrients, geographical influence

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