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Table of Contents

Volume 66, Issue 2 — February 2026

Research Articles

1.

Exploring the Intricacies of Knot Theory within the Framework of Algebraic Topology

Amira El-Erian, Zhu Tengfei, Patience Mwanza

Al-Baath University, Homs, Syria; Kazakh National University, Almaty, Kazakhstan; University of Zambia, Lusaka, Zambia

Keywords: knot theory, algebraic topology, homology, cohomology, embeddings, invariants, classification

2.

Integrating Local Contexts in Curriculum Development: A Multicultural Perspective on Educational Practices

Jonas Petrauskas, Priya Shrestha, Omar Al-Mutairi

Vilnius University, Vilnius, Lithuania; Tribhuvan University, Kathmandu, Nepal; Banaras Hindu University, Varanasi, India

Keywords: curriculum development, cultural context, educational practices, inclusive learning, student engagement, qualitative analysis

3.

Advanced Multi-Agent System Design for Cooperative Robotic Manipulation Tasks in Dynamic Environments

Carlos Martinez, Jia Wei, Farah Al-Hassan, Kwame Nkrumah

University of Dhaka, Dhaka, Bangladesh; Al-Baath University, Homs, Syria; University of Canterbury, Christchurch, New Zealand

Keywords: multi-agent systems, cooperative manipulation, dynamic environments, reinforcement learning, swarm intelligence, robotic collaboration

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4.

Assessing Soil Health Indicators in Agroecosystems: A Comparative Study Across Diverse Climates

Jonas Kavaliauskas, Leila Nouri, Camila Fernández

Jonas Kavaliauskas, Vilnius University, Vilnius, Lithuania; Leila Nouri, Ferdowsi University of Mashhad, Mashhad, Iran; Camila Fernández, National University of La Plata, La Plata, Argentina

Keywords: soil health, agroecosystems, organic matter, microbial activity, nutrient availability, climate impact

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5.

Integrating Community-Based Conservation and Biodiversity Monitoring in Tropical Ecosystems

Nadira Wijesinghe, Felipe Carrasco, Ayesha El-Masry

University of Colombo, Colombo, Sri Lanka; Central University of Venezuela, Caracas, Venezuela; Massey University, Palmerston North, New Zealand

Keywords: biodiversity, conservation, community-based, tropical ecosystems, ecological resilience, sustainable solutions

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6.

Exploring the Impact of Collective Identity on Group Decision-Making and Social Influence Mechanisms

Dragan Jovanović, Hana Al-Khatib, Priya N. Patel

University of Rijeka, Rijeka, Croatia; Jordan University of Science and Technology, Irbid, Jordan; Oklahoma State University, Stillwater, USA

Keywords: collective identity, group decision-making, social influence, cultural context, conformity, organizational behavior

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7.

Efficient Synthesis of Chiral Organocatalysts via Enantioselective Transition Metal Catalysis

Yuko Kawahara, Tariq Al-Saleh, Femi Olatunji

Banaras Hindu University, Varanasi, India; Al-Baath University, Homs, Syria; University of Canterbury, Christchurch, New Zealand

Keywords: organocatalyst, enantioselective synthesis, transition metal catalysis, palladium, chiral induction, prochiral substrates, ligand framework

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8.

Diversity and Ecological Dynamics of Tropical Forest Understories in Southeast Asia and Africa

Ahmad Mokhtar, Siti Fatimah Tan, Naila Chanda, Maria Silvia Gomez

Universiti Sains Malaysia, Penang, Malaysia; Gadjah Mada University, Yogyakarta, Indonesia; University of Zambia, Lusaka, Zambia

Keywords: tropical forests, understory diversity, ecological interactions, biodiversity indices, multivariate analysis, conservation strategies

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