

## Table of Contents

Volume 18, Issue 8 — August 2024

---

### Research Articles

---

1.

#### **Generation of an Optimized Dendritic Cell Culture System and Discrimination of the Heterogeneity of the Cultured Cells**

Jing Wang, Xiaomin Dai, ChiaChing Hsu, Ying He, Ji Zhang, Lai Wei, Ping Zhou, Xiaoping Chen, Cong-Yi Wang, Jun Yang, Nianqiao Gong

*Keywords: Dendritic Cells, Cell Culture, Immunology, Cell Differentiation, Cytokine Secretion*

---

2.

#### **Box-Cox Distribution Under Power Normalization**

E. M. Nigm, Aya Kamal

*Keywords: Box-Cox transformation, extreme value distribution, power normalization, generalized Pareto distribution, likelihood ratio test, GEVP model*

---

3.

#### **Mean Square Solutions of Second-Order Random Differential Equations by Using the Differential Transformation Method**

Ayad R. Khudair, S.A.M. Haddad, Sanaa L. Khalaf

*Keywords: Differential Transformation Method, Random Differential Equations, Stochastic Processes, Computational Mathematics, Exact Solutions*

---

4.

#### **Load Speed Problems of Web Resources on the Client Side: Classification and Methods of Solution**

Dr. Osama Ahmad Salim Safarini

*Keywords: web performance, client-side optimization, load speed, user agent behavior, browser performance*

---

**5.**

### **Prevalence and Socio-economic and Demographic Factors Related to Household Food Insecurity in South-East Iran**

Zohreh Mortazavi, Alireza Dorosty, Mohammad Reza Eshraghian, Ali Reza Ansari Moghadam, Mahdi Ghaffari, Maryam Mohammadi

*Keywords: food insecurity, socio-economic factors, Zahedan, Iran, hunger, demographic analysis, nutritional access*

---

**6.**

### **Comparative Analysis of Capillary Blood INR Using CoaguChek XS POC and Conventional Coagulation Blood Tests**

Atanaska Dinkova, Lyudmila Vladimirova-Kitova, Tanya Deneva-Koycheva

*Keywords: anticoagulants, point-of-care testing, INR variability, vitamin K antagonists, CoaguChek XS, clinical laboratory, Sysmex S 2000i*

---

**7.**

### **Design of Fuzzy Logic-Based Footprint Authentication to Enhance Global Security**

Kapil Kumar Nagwanshi, Sipi Dubey

*Keywords: biometric authentication, fuzzy logic, footprint recognition, image processing, global security*