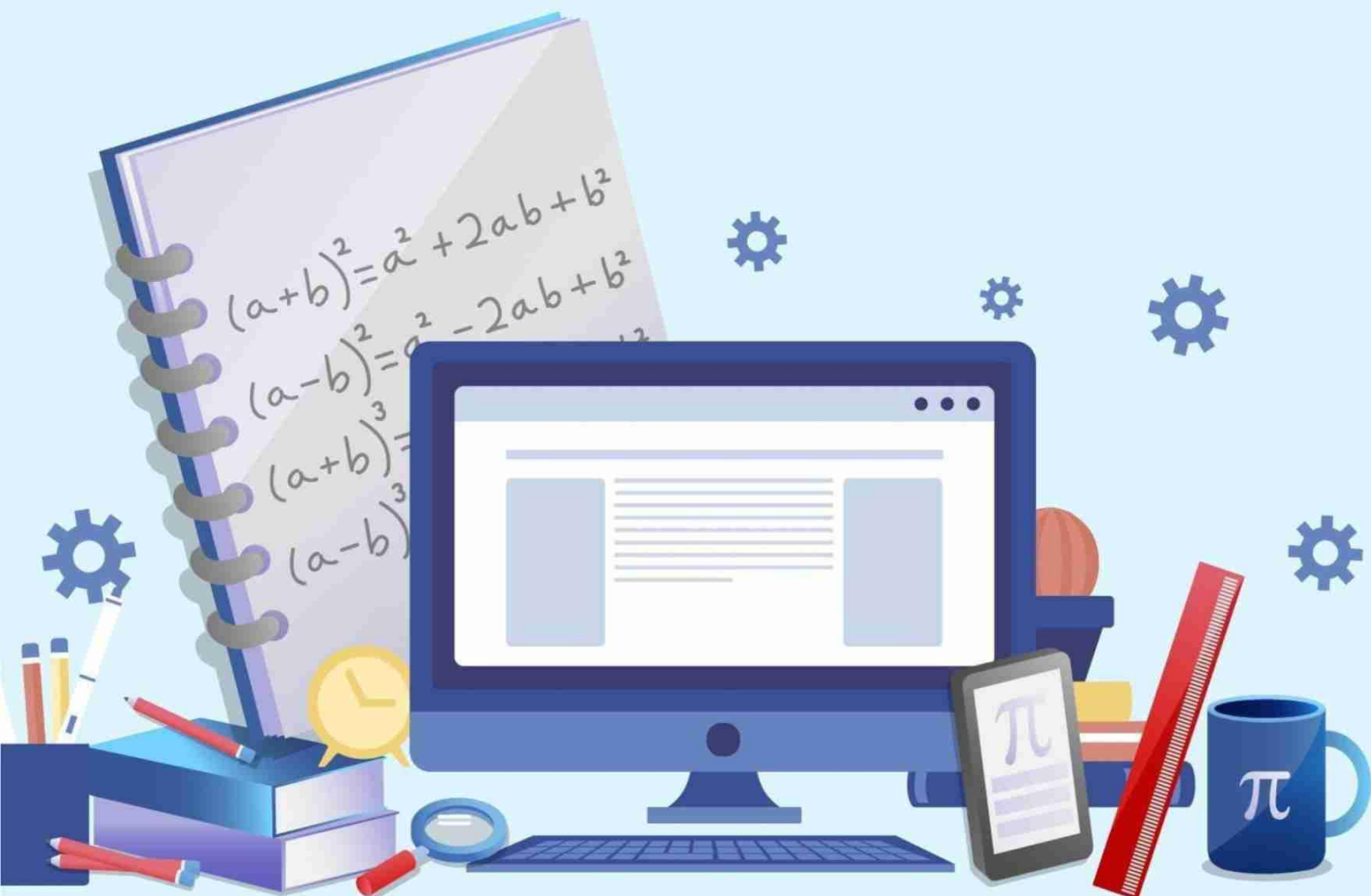


International Journal of  
**Applied Mathematics  
and Computing**

*VOL. 1 No. 2 APRIL 2024*



**INTERNATIONAL JOURNAL OF APPLIED MATHEMATICS AND COMPUTING**  
**VOLUME. 1 NOMOR. 2 APRIL 2024**

**FOCUS AND SCOPE OF THE JOURNAL**

**International Journal of Applied Mathematics and Computing with e-ISSN : 3047-146X, p-ISSN : 3048-1988.** This journal is published by the Asosiasi Riset Ilmu Matematika dan Sains Indonesia. This Journal accepts manuscripts based on empirical research, both quantitative and qualitative. This journal is a peer-reviewed and open access journal of Mathematics and Computing Science. The fields of study in this journal include the sub-family of Mathematics and Computing. This journal is published 1 year 4 times (January, April, July and October).

**International Journal of Applied Mathematics and Computing** Articles published in the International Journal of Applied Mathematics and Computing include the results of original scientific research (priority), new scientific review articles (not priorities), or comments or criticisms of articles in the International Journal of Applied Mathematics and Computing. The International Journal of Applied Mathematics and Computing ACCEPTS manuscripts or articles from various academics and researchers both internationally and nationally.

Articles published in journals are articles that have gone through a review process by Mitra Bebestari (*peer-review*). International Journal of Applied Mathematics and Computing only accepts articles derived from original research results (priority priority), and new scientific review articles (non-priority). The decision to accept or not to accept scientific articles in this journal is the right of the Editorial Board based on the recommendations of the Reviewer Partners.

**JOURNAL INDEXING INFORMATION**

**International Journal of Applied Mathematics and Computing with e-ISSN : 3047-146X, p-ISSN : 3048-1988** <https://international.arimsi.or.id/index.php/IJAMC> is a *peer-reviewed journal* that has been indexed in several leading indexers, including: *Google Scholar*; *Digital Reference Keeper (GARUDA)*; *Copernicus*; *Dimensions*; *Connecting Research and Researchers (ORCID)*; *Cross-reference DOI*.



**GARUDA**  
GARBA RUJUKAN DIGITAL

**I<sup>WORLD</sup> OF JOURNALS**



**Dimensions**

**ORCID**

Connecting research and researchers



**Crossref doi**

**INTERNATIONAL JOURNAL OF APPLIED MATHEMATICS AND COMPUTING**

**VOLUME. 1 NOMOR. 2 APRIL 2024**

**EDITORIAL TEAM**

**Editor in Chief/Chairman of the Board of Editors**

Prof. Dr. Hamdani ; Universitas Nahdlatul Ulama Kalimantan Timur, Indonesia

**Editorial Board/ Members of the Editorial Board**

Assoc. Prof. Dr. Abdul Karim ; Hallym University, Chuncheon, Republic of Korea  
Prof. Dr. Anindita Septiarini ; Universitas Mulawarman, Samarinda, Indonesia  
A Suresh Kumar ; Rathinam Technical Campus, Coimbatore, Tamilnadu, India  
Dr. Esther Sorta Mauli Nababan; Universitas Sumatera Utara, Indonesia  
Damar Nurcahyono ; Politeknik Negeri Samarinda, Samarinda, Indonesia  
Dr Farizuwana Akma Zulkifle ; University of Technology MARA (UiTM), Malaysia  
Fitria Lestari ; Universitas Muhammadiyah Lampung, Indonesia  
Dr. Ir. Gusti Rusmayadi; Universitas Lambung Mangkurat, Indonesia  
Gregorio Antonny Bani ; Universitas Aryasatya Deo Muri, Indonesia  
Prof. Dr. Henderi ; Universitas Raharja, Indonesia  
Dr. Hendra Cipta; Universitas Islam Negeri Sumatera Utara Medan, Indonesia  
Julio Lino Tilman. L. Ed ; Airlangga University, Timor-Leste  
Dr Majid Habib Khan; Xian University of Technology China, China  
Assoc.Prof. Dr. Masitah Binti Ahmad ; University of Technology MARA (UiTM), Malaysia  
Prof. Dr. Leonel Hernandez Collante ; Institución Universitaria de Barranquilla IUB, Colombia  
Prof. Dr. Sifriyani ; Department of Mathematics, Universitas Mulawarman, Samarinda, Indonesia  
Dr. Widyastuti Andriyani ; Universitas Teknologi Digital Indonesia, Yogyakarta, Indonesia.  
Prof. Dr. M. Said Hasibuan ; Institute of Informatics and Business (IIB) Darmajaya, Bandar Lampung, Indonesia

**Reviewer/Peer-Reviewers**

Assoc Prof. Dr. Abdul Karim ; Hallym University, Chuncheon, Republic of Korea  
Prof. Dr. Aji Supriyanto ; Universitas STIKUBANK Semarang, Indonesia  
A Suresh Kumar ; Sri Ranganathar Institute of Engineering and Technology, India  
Bagus Dwi Cahyono ; Universitas Sultan Ageng Tirtayasa, Indonesia  
Damar Nurcahyono ; Politeknik Negeri Samarinda, Samarinda, Indonesia  
Prof. Dr. Darnah ; Universitas Mulawarman, Samarinda, Indonesia  
Dr Farizuwana Akma Zulkifle ; University of Technology MARA (UiTM), Malaysia  
Dr. Hardika Saputra ; Institut Agama Islam Agus Salim Metro, Indonesia  
Dr. Imam Kusmaryono; Universitas Islam Sultan Agung, Indonesia  
Prof. Dr. Leonel Hernandez Collante ; Institución Universitaria de Barranquilla IUB, Colombia  
Dr. Munir Ahmad ; University of Malaysia, Sarawak, Malaysia  
Assoc.Prof. Dr. Masitah Binti Ahmad ; University of Technology MARA (UiTM), Malaysia  
Dr. Muhammad Fathurahman ; Universitas Mulawarman, Samarinda, Indonesia  
Md. Safaet Hossain ; University of Information Technology and Sciences (UITS), Bangladesh  
Dr. Saroj Kumar Sahoo ; G H Raison Engineering College and Management, India  
Prof. Dr. Sifriyani ; Universitas Mulawarman, Samarinda, Indonesia  
Dr. Rajiansyah ; Wroclaw University of Science and Technology, Poland  
Dr. Wardatul Husna Irham; Institut Teknologi Sawit Indonesia  
Refi Riduan Achmad; Universitas Nahdlatul Ulama Kalimantan Timur, Samarinda, Indonesia

**Publisher**

**Asosiasi Riset Ilmu Matematika dan Sains Indonesia**

berdasarkan S.K.Menteri Hukum dan Hak Asasi Manusia Republik

NOMOR AHU-0001313.AH.01.07.TAHUN 2024

Alamat : Puri Tegalrejo Blok E.7, RT. 005, RW. 003, Kel. Tegalrejo, Kec. Tengaran, Kab. Semarang, Jawa Tengah, 50225

Website : <https://arimsi.or.id>; email : [info@arimsi.or.id](mailto:info@arimsi.or.id)

**INTERNATIONAL JOURNAL OF APPLIED MATHEMATICS AND COMPUTING**  
**VOLUME. 1 NOMOR. 2 APRIL 2024**

**FOREWORD**

**International Journal of Applied Mathematics and Computing with e-ISSN : 3047-146X, p-ISSN : 3048-1988.** This journal is published by the Asosiasi Riset Ilmu Matematika dan Sains Indonesia. This Journal accepts manuscripts based on empirical research, both quantitative and qualitative. This journal is a peer-reviewed and open access journal of Mathematics and Computing Science. The fields of study in this journal include the sub-family of Mathematics and Computing. This journal is published 1 year 4 times (January, April, July and October).

*Reviewers* provide an assessment of originality, clarity of presentation, contribution to the field/science. The journal publishes *research articles*, literature review/review articles, case reports and *concept/policy articles*, in all fields of Community Partnership Journal accepting articles in English. The articles to be published are original works and have never been published. Entry articles will be reviewed by both internal and external review teams. The International Journal of Applied Mathematics and Computing accepts articles in English.

The Editorial Board will strive to continue to improve the quality of journals so that it can become one of the most important references in the development of science. A big thank you to para. The reviewer along with the members of the Editorial Board and all parties involved in the publication of this journal.

Greetings

Editor-in-Chief

**INTERNATIONAL JOURNAL OF APPLIED MATHEMATICS AND COMPUTING**  
**VOLUME. 1 NOMOR. 2 APRIL 2024**

**TABLE OF CONTENTS**

Journal Focus and Scope	I
Editorial Team	II
Foreword	III
Table of Contents	IV
<b>Understanding And Enhancing Diversity In Generative Models</b>	<b>Hal 01-11</b>
Munir Ahmad, Muhammad Kamran Chohan, Muhammad Zarif Qureshi, Hassan Gul	
<b>A Numerical Solution for Heat Transfer in Nanofluid Flow Using Modified Lattice Boltzmann Method</b>	<b>Hal 12-19</b>
Dini Faradina, Mohamad Subagus Fahmi, Dadan Purnama	
<b>A Comparative Analysis of Machine Learning Models for Time Series Forecasting in Finance</b>	<b>Hal 20-26</b>
Noraini Abu Talib, Rafiq Ahmad, Siti Norbaya Noor	
<b>Stability Analysis of Fractional Order Differential Equations with Time Delays</b>	<b>Hal 27-35</b>
Lutfiah Dwi Ristiani, Selvi Angelina, Tavika Trirahma	
<b>Optimization of Nonlinear Systems Using Genetic Algorithms: A Case Study in Resource Allocation</b>	<b>Hal 36-41</b>
Sarah Elhassan, Mohammed Idris, Hiba Abdallah	