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#### **Research Areas**

Mathematics, Physics, Natural Sciences

### Journal articles indexed in SCI, SSCI, and AHCI

- I. Unveiling novel insights: Nonlinear dispersion dynamics of optical solitons through new φ6-Model expansion in the Klein-Gordon equation
   Yokus A., ISAH M. A.
   Chinese Journal of Physics, vol.95, pp.476-492, 2025 (SCI-Expanded)
- II. Dynamical behaviors of different wave structures to the Korteweg-de Vries equation with the Hirota bilinear technique Yokus A., Isah M. A.

Physica A: Statistical Mechanics and its Applications, vol.622, 2023 (SCI-Expanded)

III. Investigation of internal dynamics of soliton with the help of traveling wave soliton solution of Hamilton amplitude equation

Yokus A., ISAH M. A.

Optical and Quantum Electronics, vol.54, no.8, 2022 (SCI-Expanded)

IV. Stability analysis and solutions of (2 + 1)-Kadomtsev-Petviashvili equation by homoclinic technique based on Hirota bilinear form
 Yokus A., Isah M. A.
 Nonlinear Dynamics, 2022 (SCI-Expanded)

### Articles Published in Other Journals

- I. Nonlinear Dispersion Dynamics of Optical Solitons of Zoomeron Equation with New φ6 -Model Expansion Approach
   ISAH M. A., YOKUŞ A.
   Journal of Vibration Testing and System Dynamics, vol.8, 2024 (Scopus)
- II. BILINEAR NEURAL NETWORK METHOD FOR OBTAINING THE EXACT ANALYTICAL SOLUTIONS TO NONLINEAR EVOLUTION EQUATIONS AND ITS APPLICATION TO KdV EQUATION Isah M. A., Yokuş A., Kaya D.

Khayyam Journal of Mathematics, vol.10, no.2, pp.228-248, 2024 (Scopus)

- III. Exploring the influence of layer and neuron configurations on Boussinesq equation solutions via a bilinear neural network framework
   Isah M. A., Yokus A., Kaya D.
   NONLINEAR DYNAMICS, vol.112, pp.13361-13377, 2024 (ESCI)
- IV. Bilinear neural network method for obtaining the exact analytical solutions to nonlinear evolution equations and its application to KdV equation
   ISAH M. A., YOKUŞ A., KAYA D.
   Khayyam Journal of Mathematics, 2024 (Peer-Reviewed Journal)
- V. OPTICAL SOLITONS WITH THE NONLINEAR LONG-SHORT WAVE INTERACTION SYSTEM MODEL BY NEWLY φ6-MODEL EXPANSION APPROACH ISAH M. A., YOKUŞ A.
   Advances in Computational Mathematics and Modelling, 2023 (Peer-Reviewed Journal)
- VI. Optical solitons of the complex Ginzburg-Landau equation having dual power nonlinear form using φ6-model expansion approach
   Isah M. A., Yokus A.
   Mathematical Modelling and Numerical Simulation with Applications yol 3, no 3, pp 188-215, 2023 (Scopus)

Mathematical Modelling and Numerical Simulation with Applications, vol.3, no.3, pp.188-215, 2023 (Scopus)

- VII. A novel technique to construct exact solutions for the Complex Ginzburg-Landau equation using quadratic-cubic nonlinearity law.
   ISAH M. A., YOKUŞ A.
   Mathematics in Engineering, Science and Aerospace, vol.14, no.1, pp.239-260, 2023 (Scopus)
- VIII. A novel technique to construct exact solutions for the Complex Ginzburg-Landau equation using quadratic-cubic nonlinearity law

Isah M. A., yokus A.

Mathematics in Engineering, Science and Aerospace, vol.14, no.1, pp.239-260, 2023 (Scopus)

IX. The novel optical solitons with complex Ginzburg-Landau equation for parabolic nonlinear form using the \$\phi6\$-model expansion approach

Isah M. A., yokus A.

Mathematics in Engineering, Science and Aerospace, vol.14, no.1, pp.205-225, 2023 (Scopus)

- X. The novel optical solitons with complex Ginzburg-Landau equation for parabolic nonlinear form using the φ6 -model expansion approach.
  - ISAH M. A., YOKUŞ A.

Mathematics in Engineering, Science and Aerospace, vol.14, pp.205-225, 2023 (Scopus)

## XI. Application of the newly \(\varphi^{6}\)-model expansion approach to the nonlinear reactiondiffusion equation

ISAH M. A., YOKUŞ A.

Open Journal of Mathematical Sciences, vol.6, 2022 (Peer-Reviewed Journal)

# XII. The investigation of several soliton solutions to the complex Ginzburg-Landau model with Kerr law nonlinearity

ISAH M. A., YOKUŞ A.

Mathematical Modelling and Numerical Simulation with Applications, vol.2, pp.147-163, 2022 (Scopus)

### XIII. ON INTEGRABILITY OF SILVER RIEMANNIAN STRUCTURE

Isah I., ISAH M. A., Baba M. U., Hassan T. L., Kabir K. D.

International Journal of Advanced Academic Research, 2021 (Peer-Reviewed Journal)

# XIV. SOME CHARACTERIZATION OF OSCULATING CURVES ACCORDING TO DARBOUX FRAME IN THREE DIMENSIONAL EUCLIDEAN SPACE

ISAH M. A., Isah I., Hassan T. L., Baba M. U., Kabir K. D.

International Journal of Advanced Academic Research, 2021 (Peer-Reviewed Journal)

### XV. Special Curves According to Bishop Frame in Minkowski 3-Space

Isah M. A., Külahçl M. A. Applied Mathematics and Nonlinear Sciences, vol.5, no.1, pp.237-247, 2020 (Scopus) XVI. A study on null cartan curve in Minkowski 3-space
 Isah M. A., Külahcl M. A.
 Applied Mathematics and Nonlinear Sciences, vol.5, no.1, pp.413-424, 2020 (Scopus)

### Papers Presented at Peer-Reviewed Scientific Conferences

- I. Soliton Solitons Of The Nonlinear Duffing Equation Using Newly *φ*6-Model Expansion Approach
   ISAH M. A., YOKUŞ A., YAHUZA M.
   8th INTERNATIONAL STUDENT SYMPOSIUM, Kahramanmaraş, Turkey, 23 September 2022, pp.78-98, (Full Text)
- II. Stability Analysis and Soliton Solutions of the Nonlinear Evolution Equation by Homoclinic Technique Based on Hirota Bilinear Form Yokus A., Isah M. A.
   2023 International Conference on Fractional Differentiation and Its Applications, ICFDA 2023, Ajman, United Arab Emirates, 14 - 16 March 2023, (Full Text)
- III. Rogue waves and Stability Analysis of the new (2+1)-KdV Equation Based on Symbolic Computation Method via Hirota Bilinear Form Isah M. A., Yokus A.
  2023 International Conference on Fractional Differentiation and Its Applications, ICFDA 2023, Ajman, United Arab Emirates, 14 - 16 March 2023, (Full Text)
- Iv. Involute Curves in 4-Dimensional Galilean Space G4
   ISAH M. A., ALYAMAÇ KÜLAHCI M.
   Conference Proceeding of 17th International Geometry Symposium (2019) Erzincan/Turkey, Erzincan, Turkey, 19
   22 June 2019, (Full Text)

### Metrics

Publication: 24 Citation (Scopus): 150 H-Index (Scopus): 7