# SHAMESEDDIN ALSHORM

*Department of Mathematics, Al Zaytoonah University of Jordan, Amman 11733, Jordan*

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researchgate.net/profile/Shameseddin-Alshorm | Shameseddin Alshorm

## Biography

A research assistant in the Department of Mathematics at the Al-Zaytoonah University of Jordan. Also, I'm the head manager at Innovation and Entrepreneurship Center for Educational Consultations. My research interests focus on fractional analysis, control theory, and abstract algebra.

## Education

### Yarmouk University
*IRBID, JORDAN*

MSc in Curriculums for Teaching Mathematics
*Sep 2022 - Sep 2023*

- I studied the necessary skills, including the use of manipulatives, virtual environments, computer algebra systems, and ICT.

### Al Al-Bayt University
*MAFRAQ, JORDAN*

Master of Science Mathematics
*Sep 2019 - Aug 2021*

- I got my Masters in Mathematics with a 3.85 out of 4 (Excellent).
- Specialized in abstract algebra, and published several research papers in my field. I am also one of the first in my class.

### Al Al-Bayt University
*MAFRAQ, JORDAN*

Bachelor of Science Mathematics
*Sep 2016 - Sep 2019*

- I got my BA in Mathematics with a 3.8 out of 4 (Excellent), and I got honors upon graduation for being one of the top graduates in my class.

## Work Experience

### Al-Zaytoonah University of Jordan
*AMMAN-JORDAN*

Research Assistant (RA)
*Since September 2022*

- Writing and publishing specialized scientific research in mathematics within the mathematics department at the university and supervising, checking, and amending student research in the department.

### Innovation and Entrepreneurship Center for Educational Consultations
*AMMAN-JORDAN*

Head manager
*Since June 2022*

- The innovation and Entrepreneurship Center for Educational Consultations I-ecec was founded in 2022 as a non-governmental, non-profit organization and academic educational consultations center.

### ARID SCIENTIFIC LTD
*MALAYSIA, UK.*

Mathematics Researcher
*Since January 2022*

- The General Secretariat of the ARID platform for Arabic-speaking scholars, experts, and researchers grant me the official ARID Scientific membership with the researcher's ID number, according to the terms and conditions.

## Publications

### JOURNAL ARTICLES

A Numerical Implementation of Fractional-Order PID Controllers for Autonomous Vehicles
Iqbal Batiha, Osama Ababneh, Abeer Al-Nana, Waseem Alshanti, Shameseddin Alshorm, Shaher Momani
*Axioms* 12 (Mar. 2023). 2023

SEMI-ANALYTICAL SOLUTION TO A COUPLED LINEAR INCOMMENSURATE SYSTEM OF FRACTIONAL DIFFERENTIAL EQUATIONS
Iqbal Batiha, Nashat Alamarat, Shameseddin Alshorm, Osama Ababneh, Shaher Momani
*Nonlinear Functional Analysis and Applications (NFAA)* 28 (June 2023) pp. 449–471. 2023

Modified 5-point fractional formula with Richardson extrapolation
Iqbal Batiha, Shameseddin Alshorm, Iqbal Jebril, Amjed Zraiqat, Zaid Momani, Shaher Momani
*AIMS Mathematics* 8 (Feb. 2023) pp. 9520–9534. 2023

The n-Point Composite Fractional Formula for Approximating Riemann-Liouville Integrator
Iqbal Batiha, Shameseddin Alshorm, Shaher Momani
*Symmetry* 15 (Apr. 2023). 2023

Common Fixed Point Theorem in Non-Archimedean Menger PM-Spaces Using CLR Property with Application to Functional Equations
Iqbal Batiha, Leila Aoua, Taki Eddine Oussaeif, Adel Ouannas, Shameseddin Alshorm, Iqbal Jebril, Shaher Momani
*IAENG International Journal of Applied Mathematics* 53 (Mar. 2023) pp. 360–368. 2023

A NUMERICAL SCHEME FOR DEALING WITH FRACTIONAL INITIAL VALUE PROBLEM
Iqbal Batiha, Anwar Bataihah, Abeer Al-Nana, Shameseddin Alshorm, Iqbal Jebril, Amjed Zraiqat
19 (June 2023) pp. 763–774. 2023

Solvability and Dynamics of Superlinear Reaction Diffusion Problem with Integral Condition
Iqbal Batiha, Zainouba Chebana, Taki Eddine Oussaeif, Adel Ouannas, Shameseddin Alshorm, Amjed Zraiqat
*IAENG International Journal of Applied Mathematics* 53 (Mar. 2023) pp. 113–121. 2023

Groups in which the Commutator Subgroup is Cyclic
Shameseddin Alshorm
*Mathematics and Computation* IACMC 2022, Zarqa, Jordan, May 11-13 (May 2022). 2022

A Brief Review about Fractional Calculus
Iqbal Batiha, Shameseddin Alshorm, Iqbal Jebril, Ma'Mon Hammad
*International Journal of Open Problems in Computer Science and Mathematics* 15 (Dec. 2022) pp. 39–56. 2022

Modified Three-Point Fractional Formulas with Richardson Extrapolation
Iqbal Batiha, Shameseddin Alshorm, Adel Ouannas, Shaher Momani, Osama Ababneh, Meaad Albdareen
*Mathematics* 10 (Sept. 2022) p. 3489. 2022

A Numerical Confirmation of a Fractional-Order COVID-19 Model's Efficiency
Iqbal Batiha, Ahmad Obeidat, Shameseddin Alshorm, Ahmed Alotaibi, Hajid Alsubaie, Shaher Momani, Meaad Albdareen, Ferjeni Zouidi, Sayed Eldin, Hadi Jahanshahi
*Symmetry* 14 (Dec. 2022) p. 2583. 2022

Finite Groups In Which Every Commutator Element Is Central
Shameseddin Alshorm, Khaled Al-Sharo
*Master thesis* (Aug. 2021) p. 40. 2021

## CONFERENCES

| | | |
|---|---|---|
| 2021 | **6th,** International Conference on Combinatorics, Cryptography, Computer Science and Computation, | *Iran* |
| 2021 | **9th,** ARID International Scientific Forum ARID SCIENTIFIC LTD | *Turkey* |
| 2022 | **7 th,** International Arab Conference on Mathematics and Computations | *Jordan* |
| 2022 | **5th,** INTERNATIONAL CONFERENCE ON MATHEMATICAL AND RELATED SCIENCES | *ANTALYA, TURKEY* |
| 2023 | **6th,** Global Webinar on Applied Science, Engineering and Technology | *Online* |
| 2023 | **ICFDA 2023,** THE INTERNATIONAL CONFERENCE ON FRACTIONAL DIFFERENTIATION AND ITS APPLICATIONS | *United Arab Emirates* |
| 2023 | **The 1st,** Scientific Conference for Graduate Students | *Jordan* |
| 2023 | **8 th,** International Arab Conference on Mathematics and Computations | *Jordan* |
| 2023 | **7th,** Global Webinar on Applied Science, Engineering and Technology | *Online* |
| 2023 | **11 th,** International Conference on Information Technology | *Jordan* |

## CONFERENCES PAPER

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| 2021 | **ON A CLASS OF FINITE GROUPS WITH RESTRICTION ON COMMUTATOR,** 6th, International Conference on Combinatorics, Cryptography, Computer Science and Computation, | *Iran* |
| 2021 | **Finite Groups In Which Every Commutator Element Is Central,** 9th, ARID International Scientific Forum ARID SCIENTIFIC LTD | *Turkey* |
| 2022 | **Groups in which the commutator subgroup is cyclic,** 7th, International Arab Conference on Mathematics and Computations | *Jordan* |
| 2022 | **A study of numerical solutions for a family of multi-term fractional-order integrodifferential equations,** 5th, INTERNATIONAL CONFERENCE ON MATHEMATICAL AND RELATED SCIENCES | *ANTALYA, TURKEY* |
| 2023 | **Analytic functions defined by Ruscheweyh derivative,** 6th, Global Webinar on Applied Science, Engineering and Technology | *Online* |
| 2023 | **Numerical Solutions of Stochastic Differential Equation Using Modified Three-Point Fractional Formula,** ICFDA 2023, THE INTERNATIONAL CONFERENCE ON FRACTIONAL DIFFERENTIATION AND ITS APPLICATIONS | *United Arab Emirates* |
| 2023 | **A Historical Preliminary Definitions Review of Fractional Calculus,** The 1st, Scientific Conference for Graduate Students | *Jordan* |
| 2023 | **1-Numerical Solution for Fractional-order Glioblastoma Multiforme Model. 2-Solving Fractional Order Monkeypox Model by New Numerical Methods. 3-Stochastic Population Growth Model Using Three-Point Fractional Formula.,** 8 the, International Arab Conference on Mathematics and Computations | *Jordan* |
| 2023 | **Using the Lyapunov Method, Fractional Discrete Chaotic Systems can be Synchronized,** 7th, Global Webinar on Applied Science, Engineering and Technology | *Online* |
| 2023 | **1-Handling Systems of Incommensurate Fractional Order Equations Using Improved Fractional Euler Method, 2-Numerical Solution for Incommensurate System of Fractional Order Differential Equations Using MFEM,** 11 the, International Conference on Information Technology | *Jordan* |

# Organizing Conference Committee

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| 2023 | **The 1st,** Scientific Conference for Graduate Students at AL-ZAYTOONAH UNIVERSITY OF JORDAN | *Jordan* |

# Editor at the following journal

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| Since 2023 | **(GLM),** General Letters in Mathematics (GLM) Email: editorglm@refaad.com DOI: 10.31559/GLM ISSN 2519-9277 (Online) ISSN 2519-9269 (Print) Freq. : Quarterly | *Jordan* |

# Reviewer at the following journal

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|---|---|---|
| Since 2022 | **(IJOPCM),** International Journal of Open Problems in Computer Science and Mathematics, Print ISSN: 1998-6262 & Online ISSN: 2079-0376 | *Jordan* |
| Since 2022 | **(ICSRS),** International Center for Scientific Research and Studies | *Jordan* |
| Since 2022 | **(IJOPCA),** International Journal of Open Problems in Complex Analysis | *Jordan* |

# BADGES

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| **2023** | Activist at ARID Scientific Events Badge 2023, from ARID Scientific platform, May 2023 |
| **2022** | Activist at ARID Scientific Events Badge 2022, from ARID Scientific platform, May 2022 |
| **2022** | Initiative Researcher Badge from ARID Scientific platform, January 2022 |
| **2021** | Activist at ARID Scientific Events Badge 2021 from ARID Scientific platform. November 2021 |

# Review Activities

**Nonlinear Functional Analysis and Applications (NFAA)**  *KOREA*

(51767) 7 Kyungnamdaehak-ro, Masanhappo-gu, Changwon-si, Gyeongsangnam-do, Republic of Korea  *2022-2023*

• Solvability For a Class of FDEs with Some (e1,e2, θ)-nonlocal anti periodic conditions and another Class of KdVBE Type.

**Journal of Applied Mathematics and Informatics (JAMI)**  *KOREA*

60332, 70 Hannam-Ro, Daedeok-Gu, Daejeon 34430, KOREA  *2022-2023*

• A Study on Invariant, Existence and Uniqueness of the Global Solution for Tridiagonal Reaction-diffusion Systems.
• Pollution Detection for the Singular Linear Parabolic Equation.

# References

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| **Iqbal H. Jebril** | Professor, Mathematics Department, Al Zaytoonah University of Jordan, i.jebri@zuj.edu.jo |
| **Aicha Mouloud** | Associate Professor, Mathematics Mathematics, Science, Technologies, and Business Division- CT 220 C NOVA.8333 Little River Turnpike, Annandale, VA 22003, amouloud@nvcc.edu |
| **Iqbal M. Batiha** | Professor, Mathematics Department, Al Zaytoonah University of Jordan, ibatiha@inu.edu.jo |
| **Shaher Momani** | Professor, Department of Mathematics Faculty of Science, University of Jordan, s.momani@ajman.ac.ae. |

# Languages

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| **English** | Professional proficiency |
| **Arabic** | Native speaker |

**References available upon request.**