

Manal Ghanem

CONTACT INFORMATION

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RESEARCH INTERESTS

Commutative Rings, Graph Theory, Discrete Mathematics, Algebraic Graph Theory.

EDUCATION

University of Jordan

Ph.D. in Mathematics 2005

- Dissertation: “The associate Property of Rings ”
- Dissertation Topic: Algebra.
- Advisor: Hasan El-Azeh

M.Sc. in Mathematics, 1998

- Dissertation: “Regular self-Complemented Graphs”
- Dissertation Topic: Combinatorics.
- Advisor: Hasan El-Azeh

The University of Jordan

B.A., Mathematics, 1996

ACADEMIC EXPERIENCE

Head of Mathematics Department, The University of Jordan, Amman Jordan. **2021 - 2023**
Professor-Algebra, The University of Jordan, Amman Jordan. **2019 - To date**
Associate Professor-Algebra, The University of Jordan, Amman Jordan. **2013 - 2019**
Associate Professor-Algebra, Irbid National University, Irbid Jordan. **2011 - 2013**
Assistant Professor, Irbid National University, Irbid Jordan. **2005 - 2011**
Full Time Lecturer, Irbid National University, Amman Jordan. **1998 - 2005**

RECORD OF COURSES TAUGHT AT UNIVERSITY LEVEL

- B.Sc. Level.
 - Calculus 1.
 - Calculus 2.
 - Calculus 3.
 - Intermediate Analysis.
 - Foundation of Mathematics.
 - Set Theory.
 - Linear Algebra 1.
 - Linear Algebra 2.
 - Complex Analysis 1.
 - Complex analysis 2.
 - Modern Algebra 1.
 - Modern Algebra 2.
 - Number Theory.
 - Graph Theory

- M.Sc. Level
 - Algebra 1.
 - Algebra 2.
 - Graph Theory

Dissertation/Thesis Supervision and Committees

- Supervised and co-supervised Five Doctoral Dissertations.
 - Wafa Boulahmar "The γ -Inverse Graph of Some Mixed Graphs." 2023.
 - Ali W. Etawi "Star and Acyclic Chromatic Numbers of Some Graphs." 2022.
 - Hadjer Aouf "Locating and Neighbor Locating Chromatic Number of Some Graphs." 2021.
 - Heba Adel Abdelkarim "Some Extension of EM-Hermite Rings." 2019.
 - Jameel M. Al-Rawalah "The Hull Number of Some Families of Graphs" 2017.
- Supervised and co-supervised eight Doctoral Dissertations.
- Served as a member of many Doctoral Dissertation Committees and Master Thesis Committees.

PUBLICATIONS

- H. Ouaf, H. Al-Ezeh and M. Ghanem. Locating Chromatic Number of Middle Graph of Path, Cycle, Star, Wheel, Gear and Helm Graphs. *Journal of combinatorial mathematics and combinatorial computing*. Accepted.
- Omar Alomari, Mohammad Abudayah and Manal Ghanem. The γ -Signless Laplacian Adjacency matrix of Mixed Graphs. *Theory and Applications of Graphs*. 2023. 10(1) 12 pages.
- Emad Abuosba, Mariam Al-Azaizeh, Manal Ghanem. PRUFER CONDITIONS VS EM CONDITIONS. *Communications of the Korean Mathematical Society*. 2023. 38(1), 69-77.
- Mohammad Abudayah, Omar Alomari and Manal Ghanem. On the Cospectrality of Hermitian Adjacency Matrices of a Mixed Graph. *European Journal of Pure and Applied Mathematics* 2022. 15(3), 1090 - 1097.
- DD Anderson, E. Abuosba, and M. Ghanem. Annihilating Content Polynomials and EM-rings. *Journal of Algebra and its Applications*. 21(5), (2022) (18 pages).
- E. Abuosba, and M. Ghanem. A Survey on EM Conditions. *Rings, Monoids and Module Theory. AUS-ICMS 2020. Springer Proceedings in Mathematics and Statistics*, vol 382. Springer, Singapore. 2022 .
- K. Nazzal and M. Ghanem. Local Properties of the Total Graph $T(\Gamma(Z_n))$. *Jordan Journal of Mathematics and Statistics*. 14(2), 2021, 221 – 230.
- E. Abu Osba and M.Ghanem. EM-Hermite Ring. *International Electronic Journal of Algebra*. 27(27), 2020, 88-101.
- H. Abdelkarim, E. Abuosba, and M. Ghanem. Idealization of EM-Hermite Rings. *Communications of the Korean Mathematical Society*. 135, 2020, 13-20.
- J. Rwalah, H. Al-Ezeh, and M. Ghanem. the Hull Number of Powers of Cycle Graphs under Restricted Conditions. *Discrete Mathematics, Algorithms and Applications*. 6(11) 2019.
- E. Abu Osba and M.Ghanem. Annihilating Content in Polynomial and Power Series Rings. *Journal of the Korean Mathematical Society*. 5, 56, 2019, 1403-1418.
- M. Ghanem, H. Al-Ezeh and A. Dabbour . Locating Chromatic Number of Powers of Paths and Cycles. *Symmetry*. 3(11) 2019.
- E. Abu Osba and H. Al-Ezeh, M. Ghanem: On U-Group Rings. *Communications of the Korean Mathematical Society*. 33 (4), 2018, 1075-1082

- M. Ghanem and E. Abu Osba, Some Extensions of Generalized Morhic Rings and EM ring, *Analele Stiintifice ale Universitatii Ovidius Constanta*, 26(1) (2018).
- M. Ghanem and K. Nazzal, 'Some properties of the Total Graph and Regular graph of a commutative ring, *Hacettepe Journal of Mathematics and Statistic*. 5(46) (2017).
- J. Rwalah, H. Al-Ezeh, and M. Ghanem , The Hull Number of Powers of Cycles, *Communications of the Korean Mathematical Society*. 2017, 32(4), 805—810.
- K. Nazzal and M. Ghanem, Some Properties of the Zero Divisor Graph of a Commutative Ring, *Discussiones Mathematicae - General Algebra and Applications* 2014, 34(2), 167-181.
- K. Nazzal and M. Ghanem, On the Line Graph of the Zero Divisor Graph for the Ring of Gaussian Integers Modulo n , *International Journal of Combinatorics*. 2012, 13 pages.
- M. Ghanem and K. Nazzal, On the Line Graph of the Complement Graph for the Ring of Gaussian Integers Modulo n . *Open Journal of Discrete Mathematics*, 2012, 2, 24-34.
- M. Ghanem , Alun Wyn-Jones, and H. Al- Ezeh, Presimplifiable and Cyclic Group Rings. *Journal of Communication in Algebra*. 2012, 40, 3036-3046.
- M. Ghanem. Some Properties of Associate and Presimplifiable Rings. *Turkish Journal of Mathematics*. 2011, 35(2), 333-340.
- M. Ghanem. Two new types of rings defined by using a translational invariant fuzzy subset. *Advances in Fuzzy Systems*. 2010, 1-6.
- M. Ghanem. Some Properties of Hurwitz Series Ring. *International Mathematical Forum*. 2007, 6(40), 1973-1981.

SUBMITTED PAPERS Wafa Boulahmar, Manal Ghanem and Mohammad Abudayah. The γ Inverse Graph of Some Mixed Graphs.