# Jawaher A. Al-Mufarrij

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# Education

- BSc in Mathematics, first-class honors, King Saud University, Riyadh, 1998
- MSc in Mathematics, King Saud University, Riyadh, 2001
- PhD in Mathematics, Fuzzy Topology, King Saud University, Riyadh, 2009

### Theses and supervision

- MSc thesis: "Separable Quotients of Banach Spaces and Some related Problems." ." Supervisor: Prof. David Yost, Co-supervisor: Prof. Fatimah Jamjoom.
- PhD thesis: "On the Subcategories of Frame Valued Topological Groups and Generalized Convergence Groups." Supervisor: Prof. T. M. G. Ahsanullah.

# **Academic Positions**

- Assistant Professor, King Saud University, Riyadh, 2009 to present
- Lecturer, King Saud University, Riyadh, 2007-2009
- Teaching Assistant, King Saud University, Riyadh 1999-2007
- Vice Chair, Department of Mathematics, approximately 2011–2013

# **Teaching Experience**

### **Tutorials:**

Math 101, 102, 243, 282, 343, 344, 373, 384, 385, 482

#### **Lectures:**

Math 101, 102, 106, 111, 131, 201, 206, 373, 499, ACTU 498

# **Publications**

- T. M. G. Ahsanullah, Jawaher Al Mufarrij, Frame valued stratified generalized convergence groups, Quaestiones Math. 31(2008), 279–302. https://doi.org/10.2989/QM.2008.31.3.8.550
- J. Al-Mufarrij, T. M. G. Ahsanullah, On the category of fixed basis frame valued topological groups, Fuzzy Sets and Systems, 159(2008), 2529–2551. https://doi.org/10.1016/j.fss.2007.12.011
- J. Al-Mufarrij, Stratified lattice-valued balanced neighborhood topological groups, New Mathematics and Natural Computation, 8(2)(2012), 153–166. https://doi.org/10.1142/S1793005712500019

- J. Al-Mufarrij, T. M. G. Ahsanullah, On the relationships between various lattice-valued topological groups and their uniformities, New Mathematics and Natural Computation, 8(3)(2012), 361–383. https://doi.org/10.1142/S1793005712500081
- T. M. G. Ahsanullah, D. Gauld, J. Al-Mufarrij, F. Al-Thukair, Enriched lattice-valued convergence groups, Fuzzy Sets and Systems, 238(2014), 71–88. http://dx.doi.org/10.1016/j.fss.2013.08.010
- T. M. G. Ahsanullah, D. Gauld, J. Al-Mufarrij, F. Al-Thukair, Enriched lattice-valued topological groups, New Mathematics and Natural Computation, 10(1)(2014), 1–25. http://dx.doi.org/10.1142/S1793005714500021
- T. M. G. Ahsanullah, F. Al-Thukair, J. Al-Mufarrij, Lattice-Valued Quasi-bi-Uniformizability of Lattice-Valued Quasi-bi-Topological Neighborhood Groups, International Journal of Contemporary Mathematical Sciences, 10(6)(2015), 253–268. http://dx.doi.org/10.12988/ijcms.2015.5627
- T. M. G. Ahsanullah, F. Al-Thukair, J. Al-Mufarrij, On the continuous action of enriched lattice-valued convergence groups, Filomat, 34(9)(2020), 3045–3064. https://doi.org/10.2298/FIL2009045A
- S. Saleh, J. Al-Mufarrij, On g-Regularity and g-Normality in Fuzzy Soft Topological Spaces, European Journal of Pure and Applied Mathematics, 16(1)(2023), 180–191. https://doi.org/10.29020/nybg.ejpam.v16i1.4597
- S. Saleh, J. Al-Mufarrij, A. A. Nahi Alrabeeah, On continuity and categorical property of interval-valued topological spaces, International Journal of Nonlinear Analysis and Applications, 14(9)(2023), 385–392. http://dx.doi.org/10.22075/ijnaa.2023.29326.4241
- S. Al-Ghour, J. Al-Mufarrij, Between Soft Complete Continuity and Soft Somewhat-Continuity, Symmetry, 15(11)(2023), 2056. https://doi.org/10.3390/sym15112056
- J. Al-Mufarrij, S. Saleh, New results on soft generalized topological spaces, Journal of Mathematics and Computer Science, 32(1)(2023), 43–53. http://dx.doi.org/10.22436/jmcs.032.01.04
- S. Saleh, J. Al-Mufarrij, A. M. Alzubaidi, A. Al-Salemi, Some properties of R\_i-axioms via multi-set topological spaces, Journal of Mathematics and Computer Science, 34(3)(2024), 257–267. http://dx.doi.org/10.22436/jmcs.034.03.05
- S. Al-Ghour, J. Al-Mufarrij, Soft almost weakly continuous functions and soft Hausdorff spaces, AIMS Mathematics, 9(12)(2024), 35218–35237. http://dx.doi.org/%2010.3934/math.20241673
- Jawaher Al-Mufarrij, Samer Al-Ghour, Soft Weak θ-Continuity and Preservations of Soft Hyperconnectedness and Soft Near Compactness, International Journal of Neutrosophic Science, 2025, 26–41. https://doi.org/10.54216/IJNS.250404
- J. Al-Mufarrij, S. Al-Ghour, Regular-Closed Functions Between Soft Topological Spaces, International Journal of Neutrosophic Science, 25(3)(2025), 1–20. https://doi.org/10.54216/IJNS.250337
- F. Alsharari, J. Al-Mufarrij, I. M. Taha, On j-fuzzy γI-open sets with some applications, AIMS Mathematics, 10(9)(2025), 20550–20570. http://dx.doi.org/10.3934/math.2025917
- M. Taha, J. Al-Mufarrij, O. M. Taha, Some characterizations of (r,s)-fuzzy b-open sets with applications in double fuzzy topological spaces, European Journal of Pure and Applied Mathematics, 18(2)(2025), 1–27. <a href="https://doi.org/10.29020/nybg.ejpam.v18i2.5911">https://doi.org/10.29020/nybg.ejpam.v18i2.5911</a>

# **Books**

- Marouf A. Samhan, Abeer H. Alharbi, Jawaher A. Al-Mufarrij, Mathematics Olympiad: Algebra, Mawhiba, Riyadh, 2015.
- Jawaher Al-Mufarrij, Introduction to Topology, University Book House for Publishing and Distribution, Riyadh, 2025.

### **Committees and Service**

- Member, Final Examinations Committee, College of Science, for several semesters.
- Member, Saudi Society for Mathematical Sciences.
- Coordinator, Contracting Committee, Mathematics Department, Female Branch, approximately 2012–2013.
- Coordinator, Teaching Assistants, Lecturers and Scholarships Committee, Mathematics Department, approximately 2013.
- Member, Employment Committee, Mathematics Department, approximately 2013.
- Coordinator, Midterms and Final Examinations Committee, Mathematics Department, approximately 2011–2012.
- Coordinator, Student Guidance Committee, Mathematics Department, approximately 2012–2013.
- Member, Transition Committee to the new university campus, approximately 2012–2013.
- Member, Engineering and Topology Specialized Committee.
- Coordinator, Student Affairs Committee, Female Branch, approximately 2015–2021.
- Member, Course Equivalency Committee, 2014–2018 approximately.
- Member, Student Rights Committee, Mathematics Department, 2021.
- Member, Follow-up Committee for the Implementation of the Strategic Plan, College of Science, 2015 to present.
- Coordinator, Department Annual Report Committee, 2021 to present.

# Workshops

- The foundation workshop for new faculty members, 2009, King Saud University.
- Effective university teaching skills, 2009, King Saud University.
- Course Building, 2009, King Saud University.
- Skills of evaluating student performance, 2010, King Saud University.
- Minimized teaching, 2010, King Saud University.
- The Second Mathematics Forum, 2012.
- The Second Conference on Mathematics courses in General Education, 2012.
- Symposium on higher education for girls in the Kingdom from growth to competition, 01/2013.
- Workshop to formulate a new administrative vision for women's departments in support of the university's strategic plan, 2013.
- The Ninth Conference on Topology and its Applications, Spain, Almería, 06/2014 AD.
- Introductory workshop on Personal Response Systems (Clickers) at the Center for Excellence in Learning and Teaching, 2016.
- Fourth Conference on Mathematics Sciences and its Applications, 04/2017.
- Presentation of research and posters in conferences, 2018.
- International Conference on Education Evaluation 2018, Future Skills, Development and Evaluation, 12/2018.
- Workshop, Future Jobs Skills from the Perspective of Vision 2030, 2019.
- Scientific publishing in international ISI journals, 2018.
- Presentation Program (Prezi), 2018.
- Cloud storage, 2019.

- Excel, an online training course.
- Google educational tools, an online training course.
- TRIZ theory to solve problems in creative ways, 2020.
- Performance Indicators and Benchmarking, 2020.
- Take Home Exam preparation skills, 2020.
- Scientific Writing and Scientific Publishing, 2020.
- Using the learning management system, 2020.
- Design tests and activities, 2020.
- Assessment of student performance and online learning, 2020.
- The skill of searching for information, 2020.
- Lecture, Assessment of Learning Outcomes in Online Tests, 2020.
- Lecture, Innovation in E-Learning, Dar Al-Uloom University, 2020.
- The Seventh Conference on Teaching and Learning Mathematics, King Saud University, 12/2020.
- Attending the training course, Visual Proof, within the activities of the Seventh Conference on Teaching and Learning Mathematics, 2021.
- Attending the workshop, updating the strategic plan of the university KSU2030, second phase, 04/2021.
- The Fifth Conference in Mathematical Sciences and its Applications, 11/2021.
- Workshop of the strategic plan guide for the university units and their alignment, 12/2021.
- Workshop, Artificial Intelligence in Scientific Research, Modern Publishing Policies of International Publishers, May 2025.
- Workshop, Generative Artificial Intelligence in Research Writing, the Pre-Writing Stage, September 2025.

# **University and Community Service**

- Organized the Second Mathematics Forum, 2012.
- Rapporteur of the Women's Committee organizing the Third Conference in Mathematics and its Applications in Public Education, 2013.
- Academic advisor to undergraduate students in the Department of Mathematics.
- Prepared the annual report of the Department of Mathematics, College of Science, King Saud University for the academic year 2009–2010.
- Organizing member of the Open Day activities, second semester, academic year 2003–2004.
- Participation in organizing Qiyas test for female students, several times.

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