Curriculum Vitae
Ryad Ghanam

Personal Information

Date of birth: December 19, 1972

Citizenship: United States

Address (office):   Liberal Arts and Science
Virginia Commonwealth University in Qatar
P.O. Box 8095
Education City
Doha, Qatar

Phone number (office):   +974 4402 0795

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Education

University of Toledo. Toledo, OH, U.S.A	Ph.D.	2000	Mathematics
University of Toledo. Toledo, OH, U.S.A	M.A.	1997	Mathematics
University of Jordan	B.Sc.	1995	Mathematics

Research Interests

Lie groups and Lie algebras, representations of finite dimensional Lie algebras, applications of Lie algebras in differential equations, and modeling with fractional differential equations.

Professional Experience

Virginia Commonwealth University in Qatar	Associate Professor	2014- Present

Virginia Commonwealth University	Associate Professor. Affiliate Faculty	2015- Present
University of Pittsburgh at Greensburg	Associate Professor	2007-2014
King Fahd University of Petroleum and Minerals	Associate Professor	2010-2012
University of Pittsburgh at Greensburg	Assistant Professor	2003-2007
University of Wisconsin-Rock County	Assistant Professor	2000-2003

Publications

Refereed Journal Articles

2016

1. Ghanam, Ryad and G. Thompson, "Levi Subalgebras of gl(4,R)." Journal of Algebra. Submitted (April 2016).

2. Awotunde, Abeeb A., Ryad A. Ghanam, Suliman S. Al-Homidan, and Tatar Nasser-eddine. "Numerical Schemes for Anomalous Diffusion of Single-Phase Fluids In Porous Media." *Communications in Nonlinear Science and Numerical Simulation, 39* (2016): 381-395.

3. Ghanam, R. , Mustafa, B. , Mustafa, M.T. and Thompson, G. " Matrix Representations for seven-dimensional nilpotent Lie Algebras." (2016) J. Phys. Math. 7: 155. doi:10.4172/2090-0902.1000155.

4. Al-Omari, S., F.D. Zaman, A. Y. Al-Dweik and Ryad A. Ghanam. " Symmetry group classification and invariant solutions of a class of damped Timoshenko beam system with a non-linear rotation. Submitted." (2016)Journal of Mathematical Physics. Submitted.

5. Ali, Sajid, Hassan Azad, Indranil Biswas, Ryad Ghanam, and Tahir Mustafa. "Algorithms for embedding nilpotent subalgebras in maximal solvable subalgebras of algebraic Lie algebras." *Journal of Algebra* (2016). Submitted

2015

6. Ghanam, Ryad and G. Thompson. "Minimal matrix representations of five-dimensional Lie algebras." Extracta Mathematicae, 30, no.1 (2015): 95-133.

7. Awotunde, Abeeb A., Ryad A. Ghanam, and Nasser-eddine Tatar. "Artificial boundary condition for a modified fractional diffusion problem." *Boundary Value Problems* 2015, no. 1 (2015): 1-17.

8. Azad, H., I. Biswas, R. Ghanam and M.T. Mustafa. "On computing joint invariants of vector fields." Journal of Geometry and Physics, 97 (2015): 69-76.

9. Malik, Nadeem A., R. A. Ghanam and S. Al-Homidan. " Sensitivity of the pressure distribution to the fractional order in the fractional diffusion equation." Canadian Journal of Physics, 93 no. 1 (2015): 18-36.

2014

10. Ghanam, Ryad A. , Malik, Nadeem A., Tatar, Nasser-eddine. "Transparent Boundary Conditions for a Diffusion Problem Modified by Hilfer Derivative." J. Math. Sci. Univ. Tokyo , 21 no. 1 (2014):129–152.

2013

11. Al-Homidan, Suliman, Ryad A. Ghanam, and Nasser-eddine Tatar. "On a generalized diffusion equation arising in petroleum engineering." *Advances in Difference Equations* 2013, no. 1 (2013): 1-14.

12. Azad, H., Ahmad Y. Al-Dweik, R. Ghanam, and M. T. Mustafa. "Symmetry analysis of wave equation on static spherically symmetric spacetimes with higher symmetries." *Journal of Mathematical Physics* 54, no. 6 (2013): 063509.

13. Ghanam, Ryad A., and Ahmad Y. Al-Dweik. "Conservation laws for the geodesic equations of the canonical connection on Lie groups in dimensions two and three." *Appl. Math* 7, no. 1 (2013): 311-318.

14. Ghanam, R., and G. Thompson. "Minimal Matrix Representations of Four-Dimensional Lie Algebras." *Bull. Malays. Math. Sci. Soc.(2)* 36, no. 2 (2013): 343-349.

2010

15. Ghanam, Ryad. "New Examples of Einstein Metrics in Dimension Four." *Int. J. Math. Mathematical Sciences* 2010 (2010), Article ID 716035, 9 pages

2007

16. Ghanam, R., F. Hindeleh, and G. Thompson. "Bi-invariant and noninvariant metrics on Lie groups." *Journal of Mathematical Physics* 48, no. 10 (2007): 102903.

2006

17. Ghanam, Ryad. "A note on the generalized neutral orthogonal group in dimension four." *Tamkang Journal of Mathematics* 37, no. 1 (2006): 93-103.

18. Ghanam, Ryad, G Thompson and S Tonon. " Representations of six-dimensional nilpotent Lie algebras." Hadronic Journal, 29 (2006), no. 3, 299-317.

2005

19. Ghanam, R., Igor Strugar, and Gerard Thompson. "Matrix representations for low dimensional Lie algebras." *Extracta mathematicae* 20, no. 2 (2005): 151-184.

20. Ghanam, Ryad. "A note on bi-invariant metrics on Lie groups." Algebras, Groups and Geometries **22** (2005), no. 3, 281—292.

2004

21. Ghanam, Ryad, G. Thompson, and E. J. Miller. "Variationality of four-dimensional Lie group connections." *Journal of Lie Theory* 14, no. 2 (2004): 395-425.

2002

22. Ghanam, Ryad. "Einstein Metrics with A_{16}-type holonomy". Journal of Physics A: Mathematical and General. 35 (2002), no. 1, 61-63.

2001

23. Ghanam, Ryad and G Thompson. "Two Special Metrics with R_{14}-type holonomy", Classical and Quantum Gravity, 18 (2001) 2007-2014.

24. Ghanam, Ryad, and G. Thompson. "The holonomy Lie algebras of neutral metrics in dimension four." *Journal of Mathematical Physics* 42, no. 5 (2001): 2266-2284.

Refereed Conference Proceedings

1. Bateiha, Summer, Ghanam, Ryad, and Bateiha, Zeyad. "Mathematical Growth Through Error." Paper to be presented at the 13[th]International Congress on Mathematical Education, Hamburg, Germany, July 24-31, 2016. (Accepted).

2. Malik N. A., I. Ali, B. Chanane, & R. A. Ghanam, "Time fractional transport model for flow through porous media". 6th International Conference on Porous Media and Their Applications in Science, Engineering and Industry, 3-8 July, Hawaii 2016. Submitted.

Invited Newsletter Publication

Ghanam, Ryad. "A journey in Teaching Mathematics". Research Council on Mathematics Learning. October 2015, Volume 40, No.2.

Research Grants

Funded

1. Principal Investigator, Faculty Research Grant, funded by Virginia Commonwealth University in Qatar. Minimal Matrix Representation for low dimensional Levi algebras.($ 9550) June 1, 2016-May 30, 2017

2. Principal Investigator, Faculty Research Grant, funded by Virginia Commonwealth University in Qatar. Subalgebras of GL(4,R). ($6500)June 1 2015-May 30 2016.

3. Consultant, PA Multi-Region STEM Initiative. STEM grant funded the PA Department of Education. Budget ($1,500,000), June 2013-June 2016.

4. Co-PI,11-OIL1663-04, funded by NSTIP (National Science and Technology Innovation Program, Kingdom of Saudi Arabia). Modeling Fluid Transport Through Porous Media with Application to Enhance Oil Recovery. Budget: SAR 1,700,000 ($453,290). March 2012-March 2014.

5. Principal Investigator, FT101010, funded by KFUPM (King Fahd University of Petroleum and Minerals), Minimal Matrix Representation of five-dimensional Lie Algebras. Budget: SAR50,000 ($13,332). March 2011-September 2012.

6. Principal Investigator, FT101002, funded by KFUPM. Noether's Symmetry of the geodesic equations of the canonical connection on Lie groups. Budget: SAR 50,000 ($13,332). March 2011-March 2012.

7. Co-PI, IN101026, funded by KFUPM. The wave equation on a spherically symmetric space-time. Budget: SAR120,000 ($31,996). May 2011-May 2013.

8. Principal Investigator, USRG1201. This is an undergraduate project with Fahd Andergeeri (Co-PI, undergraduate student). Matrix Exponentials and Applications. Budget: SAR 32,000 ($8532).

Not Funded

1. Principal Investigator, submitted to NPRP by Qatar Foundation. "Life Cycle Production-Cost Analyses of Oil and Gas Productions in Qatar over the Next 20 Years Using DOE Methods". Budget: $391,000. December 2014.

2. Co-PI, submitted to NPRP by Qatar Foundation. Symmetry analysis of wave equation on physically significant spacetimes. Budget: $739,905. December 2014.

3. Co-PI, submitted to NPRP by Qatar Foundation The Science of Art. $523,000. December 2014.

4. Principal Investigator, submitted to the Office of Research at the University of Pittsburgh. "Pressure distribution in two-dimensional oil reservoir using the fractional differential equations". Budget: $11324. March 2013.

5. Principal Investigator, submitted to the Office of Innovation in Education at the University of Pittsburgh. "Integrating the use of Maple in Teaching Math 0240 (Analytic Geometry and Calculus 3). Budget: $10,700. January 2013.

Invited Speaker

2016	1.	"Problem Solving", American School of Doha. Interactive and hands-on activities presented to all second grade students at the American School of Doha (ASD). Co-presented with Dr. Summer Bateiha. June 1, 2016.
	2.	"Lie Theory and differential equations". Virginia Commonwealth University. Invited Seminar Speaker. May 23, 2016.
2015	3.	"Representations of Lie Algebras and their applications". New York University Abu Dhabi. I gave a talk titled "Representations of Lie Algebras and their applications". Invited Colloquium Speaker. September 12-14, 2015.
2014	4.	"Representation of Low-dimensional Lie Algebras and their applications". Invited Colloquium Speaker. Qatar University. Qatar. October 20, 2014.
	5.	"Equations". Show and Tell. Virginia Commonwealth University in Qatar. November 4, 2014.
	6.	"Representation of Low-dimensional Lie Algebras and Applications". Invited Colloquium Speaker. King Saud University. Kingdom of Saudi Arabia. September 18, 2014.
	7.	Phi Eta Sigma Freshman Induction Ceremony Speaker. University of Pittsburgh at Greensburg. April 7, 2014.
2013	8.	"Representation of Low-dimensional Lie Algebras and Applications". Invited Colloquium Speaker. University of Toledo, OH. November 8, 2013.
2010	9.	"Representations of low dimensional Lie algebras and applications". Invited Colloquium Speaker. King Fahd University of Petroleum and Minerals. Dhahran, Kingdom of Saudi Arabia. November 2010.
2008	10.	"Representations of low-dimensional Lie algebras and applications". Invited Colloquium Speaker. Indiana University of Pennsylvania. April 2008.
2005	11.	"Symplectic and contact forms on Lie groups". Workshop on Formal Geometry of PDE's and Integrability, Brock University, Canada. June 7-8, 2005.

12. "Representations for low-dimensional Lie algebras". Invited Colloquium Speaker. Dept. of Mathematics. University of Toledo. April 1st, 2005.

2004 13. The Inverse Problem of Systems of Second Order Ordinary Differential Equations. Colloquium talk. Department of mathematics, University of Jordan, Jordan. June 2004.

2003 14. The Inverse Problem of 2nd order ordinary differential equations. Colloquium talk. Math Dept. Beloit College, Wisconsin. April 2003

2002 15. Variational Connections on Lie groups II. Formal Geometry and Mathematical Physics Conference. Utah State University. May 10-14, 2002

2001 16. The Holonomy Groups of four-dimensional Neutral metrics, Department of Mathematics, The University of Jordan. Amman, Jordan, January 10, 2001.

1999 17. The Holonomy Groups of four-dimensional neutral metrics. Colloquium Talk. Department of Mathematics. University of Toledo, September 1999.

Professional Presentations

2016 1. On the inverse problem of systems of second order differential equations. The Joint Mathematics Meeting, January 2016. Seattle, WA.

2015 2. Representation of Low-dimensional Lie Algebras and their applications. The Joint Mathematics Meeting, January 2015. San Antonio, TX.

2012 3. Minimal Matrix Representation of low-dimensional Lie groups. International Conference on Mathematical Sciences. United Arab Emirates. March 11-14, 2012.

2011 4. Representations of Lie algebras and Applications. American Mathematical Society (AMS) 2009 Spring Southeastern Section Meeting. North Carolina State University, April 4-5, 2009.

2009 5. Representations of Lie algebras and Applications. American Mathematical Society (AMS) 2009 Spring Southeastern Section Meeting. North Carolina State University, April 4-5, 2009.

2008 6. Representations of low-dimensional Lie algebras and applications, invited speaker; colloquium talk. Indiana University of Pennsylvania. April 2008.

2007 7. Bi-invariant and non-invariant metrics on Lie groups. Midwest Geometry Conference. University of Iowa. May 18-20, 2007.

2005	8.	Representation of low dimensional Lie algebras. AMS sectional meeting. Special session "Geometry of Differential Equations". University of Nebraska-Lincoln. October 21-23, 2005.
	9.	Representations for low-dimensional Lie algebras. Canadian Mathematical Society Summer 2005 meeting. Special session on Invariant theory and Differential Geometry. University of Waterloo. Canada. June 4-6, 2005
2003	10.	The Inverse Problem of Lagrangian Mechanics for the Canonical Lie Group Spray. Joint Central and Western Sectional Meeting. University of Colorado at Boulder. October 2-4, 2003
	11.	Calculus of Variations and Lie groups. Math. Department. Univ. of Wisconsin –Rock County. March 2003
2002	12.	Variational Principles for the canonical connection on a Lie group. AMS sectional Meeting. University of Wisconsin-Madison. October 12-13, 2002.
	13.	Varaitional Connections on Lie Groups. Mathematics Association of America, Wisconsin Section meeting. Ripon College, Wisconsin, April 10-12, 2002.
	14.	Geometry of ODE. Mathematics Department. University of Wisconsin-Rock County. April 15, 2002.
2001	15.	The Holonomy Lie Subalgebras of O(2,2).Department of Mathematics, University of Wisconsin-Rock County. February 13,2001.
2000	16.	The HolonomySubalgebras of O(2,2). Department of Mathematics, University of Toledo. Ph.D. defense, April 2000
1998	17.	A theorem on Holonomy by Ambrose and Singer, Differential Geometry Seminar. Department of Mathematics, University of Toledo, April 1998.

Poster Presentation:

Bayesian Analysis of Fractional Differential Equations for Petroleum Extraction (with Dr. Edward Boone). The Joint Statistical Meetings in Chicago, Illinois. July 30- August 4, 2016.

Graduate Students Supervised

1. Joshua Whitlinger, PhD. Virginia Commonwealth University, Ph.D. Advisor, starting August 2016.

2. Albert Lee, Ph.D. Virginia Commonwealth University. Committee member. April 2016-Now

3. Mona Al-Asfour, "On the curvature of left-invariant metrics on solvable Lie groups'. King Saud University. Ph.D. thesis (committee member). September 2014.

4. Bassim Fahmi, 'Representations of Seven-dimensional nilpotent Lie algebras'. M.S. Thesis. KFUPM, May 2013. (Thesis Advisor)

5. Mpungu Kassimu, "Symmetry analysis of heat and wave equations on surfaces of revolution". M.S. Thesis. KFUPM, May 2012. (Committee member).

Senior Theses Supervised

2014	1. Jenea Craig, Applications of Lie groups in Solving Differential Equations. Spring 2014.
	2. Andrea Martin. Math Education Project, the attitude of Male and Female college students towards mathematics. Spring 2014.
2013	3. Fahd Andergeeri, King Fahd University of Petroleum and Minerals (KFUPM), Matrix Exponential and Applications. September 2013.
2009	4. Danielle DeRosa, The Black-Scholes Partial Differential Equation and Pricing Option (This is a financial mathematics project), December 2009.
	5. Zach Ritchey. The Heisenberg Group. Spring 2009
	6. Alexis Adam, The attitude of female college students towards mathematics. Spring 2009.
	7. Jim Valentovich, Contact forms on Lie groups. Spring 2009.
	8. Wayne DeFloria, Symplectic forms on Lie groups. Spring 2009
2008	9. Lisa Byron, Diagonalization, Decomposition and Exponential of Matrices. Fall 2008.
2007	10. Candice Jacko, Chebyshev Polynomials and applications. Fall 2007.
	11. Erin Boyce, Wallpaper Patterns. Fall 2007.
	12. Jared Burns, The integrability of Pfaffian systems. Fall 2007.
	13. Danielle Hartner, Jordan canonical form and its applications. Spring 2007.
	14. Nicole Haley, Markov Process and Voting Theory. Spring 2007.
	15. Megan Paris, Low-dimensional Lie algebras. Spring 2007.
2005	16. Elizabeth Gregg, Matrix Representation for Seven-Dimensional Nilpotent. Fall 2005.

Conferences and Workshops Attended

2015	1. 13th International Congress on Mathematical Education, July 24-31, 2016. Hamburg, Germany.
	2. Algebraic Groups, Quantum Groups and Geometry, May 24-27, 2016. University of Virginia.
	3. Lie Groups and pseudogroup actions: From classical to differential invariants. Sophus Lie Center. Nordfjordeid, Norway. June 15-19, 2015
2013	4. Applications of Math in the oil and Gas industry II. A workshop organized by Dr. Kamy Sephrnoori for myself and my former colleague Dr. Nadeem Malilk. Petroleum and Geosystems Engineering, University of Texas Austin. March 2013.
2012	5. Applications of Math in the oil and Gas industry I. A workshop organized by Dr. Kamy Sephrnoori for myself and my former colleague Dr. Nadeem Malilk. Petroleum and Geosystems Engineering, University of Texas Austin. March 2012.
	6. Fractional Differential Equation Workshop. A workshop organized by Dr. Rafael De laLlave for myself and my former colleague Dr. Nadeem Malilk. Department of Mathematics, Georgia Teach. March 2012.
2009	7. Conference on Undergraduate Research in Mathematics. Penn State University, November 20-21, 2009.
2008	8. MAA Allegheny Mountain Sectional Meeting. University of Pittsburgh, April 2008.
2007	9. Conference on Undergraduate Research in Mathematics. Penn State University, November 9-11, 2007.
	10. MAA Allegheny Mountain Sectional Meeting. Mercyhurst College. April 2007.
2006	11. New Perspectives in Geometric Analysis. University of Toledo. 5/9-5/11 2006.
	12. Mathematical Association of America (MAA) Allegheny Mountain Sectional Meeting. Juniata College, PA. April 13-14, 2006
2002	13. Initiating a First Year Experience. UW-Colleges Conference, University of Wisconsin-Fox valley, June 6, 2002.
2001	14. Building Communities for Diverse Learning workshop, University of Wisconsin-Fox Valley. June 2001.

15. Mathematics Association of America, Wisconsin Section meeting. St. Norbert College, Wisconsin, April, 2001.

16. National New Experiences in Teaching (NexT) Fall Workshop. Menomonie, Wisconsin. September 2001.

2000   17. Joint Mathematics Meeting. Washington D.C., January 2000.

1999   18. Robert Gardner Memorial Conference in Differential Geometry, University of North Carolina at Chapel Hill, October 1999.

Awards, Honors, and Scholarships

1. Nominated for the Distinguished Research Award. Virginia Commonwealth University in Qatar, May 2016.

2. Professional Development Award, University of Pittsburgh at Greensburg, March 2008.

3. Teacher of the year Award. University of Wisconsin-Rock County. Received in May 2003.

4. University of Wisconsin-Rock County certificate of appreciation for two years of service. August 2002

5. Faculty Research Grant. Department of Mathematics. University of Wisconsin Colleges. 2001, 2002.

6. Nominated as a teacher of the year. University of Wisconsin-Rock County. 2002.

7. Graduate Teaching Assistantship. Department of Mathematics, University of Toledo, Ohio. 1996-2000.

8. Instructor Assistantship, Department of Mathematics, University of Toledo. Summers of 1996-2000.

9. B.S in Mathematics for the University of Jordan with a G.P.A 91.7% (equivalent to 4.00 in the U.S system), with the ranking of first in a class of 70 mathematics students and third overall in the college of Science among 450 students.

10. Full grant that pays for tuition and monthly stipend from the Ministry of Higher Education to do my undergraduate studies at the University of Jordan.

11. Mathematics Department Award for Undergraduate Student, University of Jordan, 1995.

Professional Organization Memberships

1. American Mathematical Society. 1996-Present.

2. MAA Ohio Section. (1996-2000)

3. MAA Wisconsin Section (2000-2003)

4. Wisconsin Project NexT. (2000-2003)

5. MAA Allegheny Mountain (2003-present)

Service Activities:

University and College Service

2015-2016	1. Member, Gallery Committee. Virginia Commonwealth University in Qatar.
	2. Vice Chair, VCU-Q Promotion Peer-Review Committee.
	3. Leader, Leading a group of students to Silicon Valley in San Francisco, VCU-Q.
	4. Organizer, a public talk by Dr. Edward Boone. from the University of Toledo.
	5. Organizer, a public talk by Dr. Gerard Thompson from the University of Toledo.
	6. Participant, Qatar Day in Richmond, VCU-Richmond.
	7. Advisor, Qatar Student Association.
	8. Advisor, Student Government Association, VCUQ.
	9. Volunteer, ZWARA Open House, VCU-Q.
	10. Quran Reciter, Commencement Ceremony. VCU-Q.
2014-2015	11. Member, VCU-Q Search Committee-LAS Director Position.
	12. Member, Career Development Committee.
	13. Advisor, Painting and print making students.
	14. Volunteer, ZWARA Open House, VCU-Q.
	15. External Reviewer; Tenure and Promotion for Dr. Firas Hindeleh from Grad Valley State University.
2013-2014	16. Member, Consortium for Educational Resources on Islamic Studies (CERIS). University of Pittsburgh.
	17. Member, Benefits and Welfare Senate Committee. University of Pittsburgh at Greensburg.
	18. Chair, Math Assessment Committee, University of Pittsburgh at Greensburg.
2012-2013	19. Member, Consortium for Educational Resources on Islamic Studies (CERIS). University of Pittsburgh.
	20. Member, Benefits and Welfare Senate Committee. University of Pittsburgh at Greensburg.

21. Member, Educational Planning and Policies Senate Committee. University of Pittsburgh at Greensburg.

22. Chair, Math Assessment Committee, University of Pittsburgh at Greensburg.

2011-2012   23. Math Coordinator, Math 101.

24. Undergraduate Committee, King Fahd University of Petroleum and Minerals (KFUPM).

25. Math Coordinator, Math 102. KFUPM

2010-2011   26. Undergraduate Committee, King Fahd University of Petroleum and Minerals (KFUPM).

27. Math Coordinator, Math 201. KFUPM.

2009-2010   28. Member, Consortium for Educational Resources on Islamic Studies (CERIS). University of Pittsburgh.

29. Math coordinator, Math 220.

30. Chair, Math Assessment Committee

2008-2009   31. Member, Consortium for Educational Resources on Islamic Studies (CERIS). University of Pittsburgh.

32. Math Coordinator, Math 220.

33. Chair, Math Assessment Committee.

34. Member, Tenure Committee for Dr. Dean Nelson.

2007-2008   35. Member, Consortium for Educational Resources on Islamic Studies (CERIS). University of Pittsburgh.

36. Math Coordinator, MATH 200

37. Chair, Math Assessment Committee.

38. Member, Third Year Review Committee for Dr. Ed Krisner.

2006-2007   39. Member, Consortium for Educational Resources on Islamic Studies (CERIS). University of Pittsburgh.

40. Member, Math Assessment Committee, University of Pittsburgh at Greensburg.

41. Member, Divincii Award Committee. University of Pittsburgh at Greensburg.

42. Faculty Marshal. University of Pittsburgh at Greensburg.

43. Organozer, "Islam and Culture" a public talk by Dr. Abdul Mawgoud Dardery. University of Pittsburgh at Greenburg.

2005-2006	44. Member, Consortium for Educational Resources on Islamic Studies (CERIS). University of Pittsburgh.
	45. Member, Chemistry Search Committee. University of Pittsburgh at Greensburg.
	46. Member, Math Assessment Committee.
2004-2005	47. Member, Consortium for Educational Resources on Islamic Studies (CERIS). University of Pittsburgh.
	48. Member, Admission and Student Financial Aid Committee, University of Pittsburgh.
	49. Student Marshal, University of Pittsburgh at Greensburg.
	50. Member, Math Search Committee. University of Pittsburgh at Greensburg.
	51. Organizer, "Women in Islam" by Dalia Mogahed. University of Pittsburgh at Greensburg.
2003-2004	52. Member, Math Search Committee. University of Pittsburgh at Greensburg.

Professional Service

2016	1. Founding member, Qatar Mathematical Society. April 27, 2016.
	2. Steering Committee, Qatar Mathematical Association. 2016-2018.
	3. K-12 Outreach Committee, Qatar Mathematical Association. 2016-2018
	4. Editor. Journal of Statistics Applications & Probability Letters.
	5. Editor. Journal of Statistics Applications & Probability
2005-2016	6. Reviewer. Mathematical Reviews (MathSciNet)
	7. Reviewer. Inverse Problems
	8. Reviewer. Classical and Quantum Gravity
	9. Reviewer. European Journal of Physics.
	10. Reviewer. Journal of Statistics and Probability

Community Service

2015-2016	1. Invited Speaker at American School of Doha: Grade 7 Careers Exploratory. Thursday January 14, 2016
	2. Invited Speaker, Grade 2. Problem Solving. May 18.

3. Mentor, Science, Technology, Engineering and Mathematics (STEM) for Qatar Independent Schools.

2013-2014   4. Invited Speaker, "Math Games" a presentation to fifth grade class. Benjamin Franklin Elementary School. Indiana, PA.

5. Consultant, training Western Pennsylvania teachers in Science, Technology, Engineering and Mathematics. Held at various colleges and schools in western Pennsylvania.

6. Invited Speaker, Jeannette McKee Elementary and Middle School STEM camp. Jeannette, Pennsylvania.

2012-2013   7. Consultant, training Western Pennsylvania teachers in Science, Technology, Engineering and Mathematics. Held at various colleges and schools in western Pennsylvania.

2008-2009   8. Invited Speaker, "Math Games" a presentation to fourth grade class. Benjamin Franklin Elementary School. Indiana, PA.

2006-2007   9. Invited Speaker, "Islam". Ligonorie, February 1, 2007.

10. Organizer, ""Palestine is still the Issue" by Kate Daher.

2001-2003   11. Volunteer Math Tutor, Rockford Iqra School. Rockford, IL

12. Volunteer Math Tutor for home school students. Rockford, IL.

Courses Taught:

Virginia Commonwealth University in Qatar

SYSM 697   Directed Research (Graduate Course)

MATH 001   Algebra

MATH 131   Introduction to Contemporary Math

University of Pittsburgh at Greesburg

MATH 0031   Algebra

MATH 0100   Prep. For Business Calculus

MATH 0120   Business Calculus

MATH 0200   Prep. For Scientific Calculus

MATH 0220   Analytic Geometry and Calculus 1

MATH 0230   Analytic Geometry and Calculus 2

MATH 0240   Analytic Geometry and Calculus 3

MATH 0413   Intro to Theoretical Mathematics

MATH 0420   Intro Theory 1-Variable Calculus

MATH 0430   Intro to Abstract Algebraic Systems

MATH 1180   Linear Algebra 1

MATH 1270   Ordinary Differential Equations 1

MATH 1360   Modeling in Applied Mathematics 1

MATH 1530   Advanced Calculus 1

MATH 1550   Vector Analysis and Applications

MATH 1560   Complex Variables and Applications

MATH 1902   Direct Study

MATH 1951   Senior Research 1

MATH 1952   Senior Research 2

University of Wisconsin-Rock County

MATH 105   Introduction to College Algebra

MATH 108   Quantitative Reasoning

MATH 110   College Algebra

MATH 113   Trigonometry

MATH 124   Pre-Calculus Mathematics

MATH 130   Mathematics for Elementary Teachers

MATH 210   Topics in Finite Geometry

MAT 221   Calculus and Analytical Geometry 1

MAT 222   Calculus and Analytical Geometry 2

MAT 223   Calculus and Analytical Geometry 3

University of Toledo

MATH 1320   College Algebra

MATH 1330   Trigonometry

MATH 134   College Algebra and Trigonometry

MATH 1750   Calculus for the Life Sciences with Applications 1

MATH 1760   Calculus for the Life Sciences with Applications 1

MATH 1850   Single Variable Calculus 1

MATH 1860   Single Variable Calculus 2

MATH 1930   Honors Calculus 2

Computer Skills

1. Programing in Maple
2. Programing in Matlab.