



## CURRICULUM VITAE

**Professor Mohamad Alghamdi**  
Professor of Mathematics Department

<u>Address:</u>	<u>Contact Information:</u>
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<u>Current Position:</u>
Professor of Mathematics Department, College of Science, The University of King Saud, Riyadh, Saudi Arabia

<u>Qualifications:</u>	
Bachelor degree	College of Science (Mathematics department) University of King Saud Riyadh, Saudi Arabia
Master degree	College of Science (Mathematics department) University of Queensland Brisbane, Australia
Doctor of philosophy	College of Science (Mathematics department) University of Queensland Brisbane, Australia

### Research Interest:

Applied Mathematics in Finance and Economics.

### Languages:

✓ Arabic

✓ English

### Teaching Experience:

2003 – 2007

✓ Teaching Assistant  
College of Science (Mathematics department)  
University of King Saud

2014 – 2018

✓ Assistant Professor  
College of Science (Mathematics department)  
University of King Saud

2018 – 2023

✓ Associate Professor  
College of Science (Mathematics department)  
University of King Saud

2023 –

✓ Professor  
College of Science (Mathematics department)  
University of King Saud

### Publications:

✓ Published Papers:

M. Alghamdi. "Expenditure of Firms on R&D in Different Structural Markets".  
Journal of Business Economics and Finance, Vol. 5, Issue, 2, pp.191-205, August,  
2016

M. Alghamdi. "The Impact of the Density of Star R&D Networks on the Maximum  
Outcomes". International Journal of Current Multidisciplinary Studies, Vol. 2, Issue,  
8, pp.394-401, August, 2016.

M. Alghamdi. "Economic Returns in Forming stable networks". SpringerPlus (2016)  
5:1570, 2016.

M. Alghamdi. "The behaviour of maximum outcomes in symmetric R&D networks".  
Journal of informatic and mathematical science, Vol. 9, Issue, 1, pp.1-12, 2017.

M. Alghamdi. "Maximum total welfare versus Growth of R&D networks". Journal of  
mathematics in industry, (2017) 7:11.

M. Alghamdi. "Different Strategies to Obtain Higher Outcomes". Journal of  
informatics and mathematical science, Vol. 9, Issue, 1, pp.161-180, 2017.

M. Alghamdi. "Some Restrictions on R&D Networks". Journal of informatics and  
mathematical science, Vol. 11, Issue, 2, pp.99-113, 2019.

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### Publications:

#### ✓ Published Papers:

- Alghamdi, M. "Economics Performance under Endogenous Knowledge Spillovers". *Asia-Pac Financ Markets* (2020) 27:175–192. <https://doi.org/10.1007/s10690-019-09288-y>
- M. Alghamdi. " Individual and Social Incentives versus R&D Network Restriction". *J. Korean Soc. Ind. Appl. Math.* Vol.23, No.4, 329–350, 2019.
- M. Alghamdi. " Company Level Variables in R&D Cooperation Perspective". *COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS*, Vol. 11, No. 1, pp.41-55, 2020.
- M. Alghamdi. " Central Positions in R&D Networks". *Journal of informatics and mathematical science*, Vol. 12, No. 1, pp.41-54, 2020.
- M. Alghamdi, S. McDonald, B. Pailthorpe. " The Impact of Product Differentiation on Symmetric R&D Networks". In D. Yeung, S. Luckraz & C. Leong (Eds.), *Frontiers in Games and Dynamic Games* (Vol. 16, pp.). Cham: Springer.
- M. Alghamdi. " Linking R&D Spillovers to Market Structure and its Impact on Equilibrium Results". *COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS*, Vol. 11, No. 4, pp. 601–615, 2020.
- M. Alghamdi. " International R&D Partnerships between Companies". *COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS*, accepted.
- M. Alghamdi. "Further Results on R&D Networks: Effective Structure and Limitations". *COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS*, accepted.
- M. Alghamdi. " Forming Stable R&D Networks in Different Market Structures". *Annals of Economics and Finance*, accepted.

### Publications:

#### ✓ Paper Submitted and in Progress:

- M. Alghamdi, S. McDonald and B. Pailthorpe (2019) "The Emergence of a Small World in a Network of Research Joint Ventures"
- M. Alghamdi, S. McDonald and B. Pailthorpe (2019) "The Impact of Connectivity, Proximity and Product Differentiation in R&D Networks"
- M. Alghamdi (2019) "Growth of small world vs Endogenous R&D spillover"
- M. Alghamdi (2019) "Maximum Outcomes under Different R&D Network Models"
- M. Alghamdi (2019) "Major Patterns in the Growth of R&D Partnerships between Worldwide Firms"
- M. Alghamdi (2019) "The Evolution of R&D Networks of Worldwide Firms"
- M. Alghamdi (2020) "Forming Stable R&D Networks in Different Market Structures"
- M. Alghamdi (2020) "International R&D Partnerships between Companies: An Empirical Study of Major Trends in the 1980s and 1990s"
- M. Alghamdi (2020) " Global Cooperation Networks in R&D"

### Publications:

#### ✓ Invited Seminars and Presentations:

UECE Conference on Game Theory and Applications at University of ISEG/Technical, in Lisbon, Portugal. ``The Effect of Connectivity, Proximity and Market Structure on R&D Networks". (Presented 04-11-2011)

Society for the Advancement of Economic Theory (SAET) at the University of Queensland, in Brisbane, QLD Australia. ``The Effect of Connectivity, Proximity and Market Structure on R&D Networks". (Presented 02-07-2012)

14th International Schumpeter Society Conference (ISS) at the University of Queensland, in Brisbane, QLD Australia. ``The emergence of a Small World in a Network of research Joint Ventures". (Presented 03-07-2012)

4th World Congress of the Game Theory Society at University of Istanbul Bilgi, in Istanbul, Turkey. ``The Effect of Connectivity, Proximity and Market Structure on R&D Networks". (Presented 22-07-2012)

Economics, Econometrics and Finance (EEF) Seminar at University of Groningen. "The effect of connectivity, proximity and market structure on R&D networks". (Presented 03-07-2013)

The Association for Public Economic Theory (APET) in Catolica Lisbon, Portugal. ``The Effect of Connectivity, Proximity and Market Structure on R&D Networks". (Presented 07-07-2013)

16th Annual Conference of Public Economic Theory Association Conference (PET 15). "The Impact of Product Differentiation on Symmetric R&D Networks". (Presented 02-07-2015)

International Conference on Equilibrium and Optimization Methodology in Finance and Economics ICEOMFE 2015. "Growth of Small World Networks versus Endogenous R&D Spillover Model". (Presented 09-11-2015)

### Publications:

#### ✓ Books in Progress

M. Alghamdi (2017) "Integral Calculus and Applications"

M. Alghamdi (2017) "Cooperation in R&D under The Network Concept"

### Computer Skills & Other Skills:

Microsoft Office: Word, Excel, PowerPoint

Programming languages: **MATLAB, MATHEMATICA**

DATA Analysis: Cooperation of firms in R&D, import and export between countries.

Calculation of loans and bonds.

Committees and Participation:

Member of the Committee of Financial and Actuarial Mathematics

Member of the Vocational Training Committee

Member of the polarization committee

Member of the Applied Mathematics Committee

Member of the Visiting Professors Committee

Alumni committee member

Rapporteur of the Committee on Exercise and Student Learning Support

Member of the Science Technology Innovation Unit (STEM)

Member of the Advisory Board for Patients and Their Families at King Khalid Hospital and Prince Sultan Health Services Center in Al-Kharj.

Training Course:

The new faculty program (36 training hours).