Personal Details

Name	*Sameh El Said Abdel Aziz Askar*
Date of birth	*11th June 1976 in Egypt*
Nationality	*Egyptian*
Marital Status	*Married/Three children*

Personal Site

http://srv63.mans.edu.eg/eu/QA/CVBuilder/ViewCV.py?DrID=27606111200316&Lang=E

Google Scholar/ ResearchGate

http://scholar.google.com/citations?user=-gtTPrYAAAAJ&hl=en
https://www.researchgate.net/profile/Ss_Askar2/contributions

Scientific Qualification

BSc June 1998	*Rank: First in the class, Honour: Excellent with honours*
	Department of Mathematics, Faculty of Science, Mansoura University, EGYPT
MSc March 2004	*Department of Mathematics, Faculty of Science, Mansoura University, EGYPT*
PhD April 2011	*Decision Engineering Centre, Manufacturing Department, School of Applied Sciences, Cranfield University, England, UK.*

MSc thesis title	*On the control of the rigid body motion with the help of auxiliary system*
Supervision	*Prof M. N. Allam (Prof of Applied Mathematics, Faculty of Science, Mansoura University)* *Prof M. E. Fares (Prof of Applied Mathematics, Faculty of Science, Mansoura University)* *Prof A. El-gohary (Prof of Applied Mathematics, Faculty of Science, Mansoura University)*

PhD thesis title	*Symbolic approaches and artificial intelligence algorithms for solving multi-objective optimization problems*
Supervision	*Prof A. Tiwari (Reader in Engineering Optimisation, School of Applied Sciences, Cranfield University, England, UK)*
Examination	*Prof Q. Zhang (School of Computer Science and electronic engineering, Essex University, UK)*

Academic Positions

Oct. 2016-present	*Associate professor of Mathematics (operations researches), Department of Mathematics, Faculty of science, Mansoura University, Egypt*
May 2015 – Present	*Associate professor of statistics and operations research, Department of statistics and operations research, College of science, King Saud University, Saudi Arabia*
Sep. 2012 – May 2015	*Assistant professor of statistics and operations research, Department of statistics and operations research, College of science, King Saud University, Saudi Arabia*
June 2011- Sep 2012	*Assistant professor of mathematics and computer sciences (operations researches and computer sciences), Mathematics Department, Faculty of Science, Mansoura University, EGYPT*
April 2007 – April 2011	*PhD Researcher, Cranfield University, England, UK*
March 2004 – April 2007	*Assistant lecturer of Applied Mathematics, Mansoura University, EGYPT*
Aug. 1998 – March 2004	*Teaching assistant of applied mathematics, Mansoura University, EGYPT*

Research Interests

- ***Multi-objective optimization using classic and evolutionary computing algorithms***
- ***Engineering design optimization***
- ***Game theory***
- ***Chaos control in economic models***
- ***Theory of multi-objective optimization***
- ***Neural networks***

Teaching Experiences

Undergraduate Courses:

1- ***Introduction to operations research***
2- ***Sampling theory***
3- ***Introduction to probability***
4- ***Biostatistics***
5- ***Sequencing and scheduling theory***
6- ***Non-linear optimality***
7- ***Forecasting and time series***
8- ***Linear programming***
9- ***Numerical analysis with Matlab***
10- ***Matlab, Maple and Mathematica***
11- ***Neural networks***
12- ***Programming with C++, Java and Matlab***
13- ***Calculus, Differential equations, Statistics, Linear algebra***
14- ***Numerical approaches in operations researches (Using Excel, Lindo, WinQSB)***

Postgraduate course:

1- ***Nonlinear programming***
2- ***Game theory***
3- ***Theory of multicriteria optimization***
4- ***Evolutionary computing algorithms***
5- ***Probability and mathematical probability***

Written Books

- ***Lecture notes in linear programming and its applications, printed by Mathematics Department, Faculty of sciences, Mansoura university, Egypt, 2011.***

IT Skills

Mathematics Software:	***Matlab, Maple, and Mathematica***
Programming languages:	***C++, Java***
Statistics programs/software:	***SPSS, Minitab, R***
Operating Systems:	***Windows 7, Linux***

Distinctions – Awards

April 2007- April 2011 — ***Full Scholarship: Ministry of higher education, Egypt; Funding for PhD degree (England-UK)***

Languages

English [Reading: Excellent, Writing: Very Good, Speaking: Very Good]
Arabic: Native language

How to contact

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Skype username *samehaskar1*

Referees

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Department of Math, Stats & Computer Science
St. Francis Xavier University, Canada
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Prof Ahmed Hegazi
Prof of Pure Mathematics
Mathematics Department
Mansoura University, Egypt
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Dr Jorn Mehnen
Decision Engineering Centre
Manufacturing Department
School of Applied Sciences
Cranfield University, UK
E-mail: j.mehnen@cranfield.ac.uk

Prof Mhamed Mesfioui
Department of Mathematics and Computer Science
Université du Québec à Trois-Rivières, CP 500, Quebec, Canada, G9A 5H7
Email: mhamed.mesfioui@uqtr.ca

Reviewing

Referee in the following journals:

- *Applied mathematics & computations*
- *International journal of systems science*
- *Computational and mathematical organization theory*
- *Economic modelling*
- *IEEE Transactions on Systems, Man, and Cybernetics- Part C: Applications and Reviews*
- *Journal of applied mathematics*
- *Nonlinear dynamics*
- *Communications in Nonlinear Science and Numerical Simulation*
- *Operations research letters*

Journal Papers

2016

[1] *Askar, SS. (2016), Cooperation versus noncooperation: Cournot duopolistic game based on delay and time-dependent parameters, Chaos, Solitons & Fractals, Vol. 91:580-584.*

[2] *Askar, SS. (2016), Chaotic Behavior of Monopoly Model, Journal of Computational and Theoretical Nanoscience, Vol. 13(1): 846-850.*

[3] *Askar, SS. (2016), Nonlinear Oligopolistic game with isoelastic demand function: Rationality and local monopolistic approximation, Chaos, Solitons & Fractals, Vol. 84:15-22.*

[4] *Askar, SS. (2016), The arising of cooperation in Cournot duopoly games, Applied mathematics and computation, Vol. 273: 535-542.*

2015

[5] *Askar, SS. (2015), Chaotic behavior of monopoly model, Journal of Computational and Theoretical Nanoscience (CTN), (accepted)*

[6] *Askar, SS. (2015), Some Complex Dynamic Characteristic of Economic Games, Journal of Computational and Theoretical Nanoscience (CTN), (accepted)*

[7] *Askar, SS. (2015), On Solving Pentadiagonal Linear Systems via Transformations, Mathematical problems in Engineering, 2015: 1-5.*

[8] *Askar, SS. (2015), Dynamic Cournot duopoly games with nonlinear demand function, Applied mathematics and computation, 259(1): 427-437*

[9] *Askar, SS. (2015), 'Image encryption algorithm based on chaotic economic model', Mathematical problems in Engineering, 2015: 1-5.*

[10] *Askar, SS. (2015), 'Analysis of nonlinear duopoly game: A cooperative case', Discrete dynamics in nature and society, 2015: 1-5.*

2014

[11] *Askar, SS. (2014), ' On Cournot-Bertrand competition with differentiated products', Annals of operations research, 223: 81-93.*

[12] *Askar, SS. (2014), 'The dynamics of economic games based on product differentiation, Journal of computational and applied mathematics, 268: 135-144.*

[13] *Askar, SS. (2014), 'The impact of cost uncertainty on Cournot oligopoly game with concave demand function, Applied mathematics and computation, 232(1): 144-149*

[14] *Askar, SS. (2014), 'The rise of complex phenomena in Cournot duopoly games due to demand functions without inflection points', Communications in Nonlinear Science and Numerical Simulation, Vol. 19, pp. 1918-1925.*

[15] *Askar, SS. (2014), 'Complex dynamic properties of Cournot duopoly games with nonconvex demand function'. Operations research letters, Vol. 42, pp. 85–90.*

2013

[16] *Askar, SS. (2013), 'The impact of cost uncertainty on Cournot duopoly game with concave demand function'. Journal of applied mathematics, vol. 2013.*

[17] *Askar, SS. (2013), 'On complex dynamics of monopoly market', Economic Modelling, Vol. 31, pp. 586–589.*

2012 and before

[18] *Askar, SS. (2012), 'On first-order optimality conditions and duality results based on invexity for multi-objective optimization problems' , Mexican Journal of Operations Research, Vol. 1, No. 1, pp. 20-28.*

[19] *Askar, SS., Tiwari, A. (2011), 'Finding Innovative Design Principles for Multi-Objective Optimization Problems', IEEE Transactions on Systems, Man, and Cybernetics- Part C: Applications and Reviews, vol. 41, no. 4, pp. 554-559.*

[20] *Askar, SS. and Tiwari, A. (2009), 'First-order optimality conditions and duality results for multi-objective optimisation problems', Annals of Operations Research Journal, Springer, Vol. 172, No. 1, pp. 277-289.*

[21] *Askar, SS. (2007). On dynamical multi-team Cournot game in exploitation of a renewable resource. Chaos, Solitons & Fractals, Vol. 32, No. 1, 264-268.*

[22] *Ahmed, E., Hegazi, A.S., Elettreby, M.F. and Askar, SS. (2006). On multi-team games. Physica A: Statistical Mechanics and its Applications, Vol. 369, No. 2, 809-816.*

[23] *El gohary, A. and Askar, SS. (2003). Control of the rotational motion of the rigid body with the help of internal rotors using Rodrigues–Caley parameters. International Journal of Non-Linear Mechanics, Vol. 38, No. 2, 133-141.*

Conferences

[1] *Askar, SS. and Tiwari, A. (2009), 'Finding exact solutions for multi-objective optimization problems using a symbolic algorithm," In: Proceedings of IEEE Congress on Evolutionary Computation (CEC 2009), Norway, pp. 24-30.*

[2] *Askar, SS. and Tiwari, A. (2009), 'Multi-objective optimization problems: A symbolic algorithm for performance measurement of evolutionary computing techniques', In: Matthias Ehrgott, Carlos M. Fonseca, Xavier Gandibleux, Jin-Kao Hao and Marc Sevaux (editors), Evolutionary Multi-Criterion Optimization. The fifth International Conference (EMO 2009), pp. 169-182, Springer. Lecture Notes in Computer Science Vol. 5467, Nantes, France*

[3] *Askar, SS., Tiwari, A., Mehnen, J. and Ramsden, J. (2008), 'Solving real-life multi-objective optimisation problems: A mathematical approach', Cranfield Multi-Strand Conference: Creating Wealth through Research and Innovation (CMC 2008), UK.*

Papers under preparation / Submission

- *Askar, SS. (2015), Nonlinear Oligopolies: The gradient rule versus heterogeneousness ', [under review]*
- *Askar, SS. (2015), Toward Investigation of the Complex Behaviour of A Monopoly Game, , [under review]*
- *Askar, SS. (2015), 'Analysis of nonlinear duopoly games with product differentiation: Stability, global dynamics and control', [under review]*
- *Askar, SS. (2015), The influences of Cobb-Douglas preferences on the dynamic behavior of Cournot games, [under review]*
- *Askar, SS. (2015), The stability of Cournot duopoly games with nonlinear demand function: when parameters depend on time, [under review]*
- *Askar, SS., M. F. Elettreby (2015), 'The impact of cost uncertainty on Cournot oligopoly games', [submitted].*
- *Askar, SS., E. Ahmed, M.F. Elettreby (2015), 'Cournot duopoly model under uncertainty', [submitted]*

Supervision (MSc/PhD):

- *On studying complex dynamic characteristics of Cournot games with bounded rationality approach [Anud, Jan. 2016]*
- *Discrete time dynamic models for Cournot adjustment monopoly and duopoly cases [Nora, April 2016]*
- *Image encryption scheme with one and two-dimensional chaotic system [Fatema, 2017]*
- *A 3-dimensional economic game model with differentiated products [Manal, 2017]*

Projects

Group Project no. RG-1435-054 [SR 150,000 – King Saud University].

Group Project no. RGP-1436-040 [SR 150,000 – King Saud University].

Prizes

- ***Research excellence and quality publishing (2013) [King Saud University].***
- ***Research excellence and quality publishing (2014) [King Saud University].***
- ***Research excellence and quality publishing (2015) [King Saud University].***
- ***Research excellence and quality publishing (2016) [King Saud University].***