

The Story of an Arab Scientist

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Abstract

Recently, the Center for World-Class Universities (CWCU) at Shanghai Jiao Tong University (SJTU) and the Highly Cited Researcher team at Thomson Reuters announced that Shaher Momani has been selected into the preliminary list of ‘Highly Cited Researchers’ in 2014 and 2015. The list recognizes some of the most influential scientific minds throughout the world. Researchers earned this distinction by writing the greatest number of reports officially designated by Essential Science Indicators as Highly Cited Papers. They rank among the top 1 percent of the most cited thought leaders in their fields. Momani was also classified as one of the Top Ten Scientists in the World in the field Fractional Calculus for the period 2009-current according to Thomson Reuters (Web of Knowledge).

In this talk, we present the story of an Arab scientist who conducted his scientific research in Arab universities during the past twenty years. Also, we discuss the difficulties and obstacles that face Arab researchers in the Arab world and how can they overcome them in order to produce research of highest quality.

Highly cited researchers (HCR) came from Essential Science Indicators, 2002-2012, which then included 113,092 Highly Cited Papers

Number of HCR(2014)	Country
10	Turkey
12	Iran
3	Malaysia
7	Greece
0	Egypt
0	Iraq
1	Jordan
!!!!!!!	Saudi Arabia
10	Israel
1	Pakistan

Personal Data

- Full name: Shaher Mohammad Momani
- Date of Birth: May 10, 1962
- Nationality: Jordanian
- Marital Status: Married, two daughters and two sons
- B.Sc. in Mathematics, Yarmouk University, Jordan, 1984.
- Ph.D. in Applied Mathematics, University: of Wales, UK, 1991.

Title of Thesis: Some Problems in Non-Newtonian Fluid Mechanics

Teaching Experience

◆ My teaching experience since I since I received my Ph.D in Mathematics from the University of Wales (UK) in 1991:

- ◆ **Mutah University: 1991-2009**
- ◆ **Yarmouk University: 2000-2001**
- ◆ **United Arab Emirates University: 2001-2004**
- ◆ **Qatar University: 2006-2007**
- ◆ **The University of Jordan: 2009- present**

Research Experience

➤ Primary Stage: 1991-1998

- ◆ Trying to establish a laboratory for non-Newtonian fluids in 1991-1993
- ◆ Switching to the theoretical part in 1993-1995
- ◆ Trying to connect Mutah university with the Internet in 1994
- ◆ Starting working on Fractional Calculus in 1995
- ◆ Accident on Mars 15, 1997

Research Experience

- **Second Stage: Research for Promotions, 1998-2004**
- ◆ Doing research for promotions, started in May 1, 1998
- ◆ Promoted to Associate Professor Nov. 29, 1998
- ◆ Moving to UAE University in 2001 and using E-Library
- ◆ Using Online Submission
- ◆ Winning TWAS Prize for the Young Scientists, Third World Academic Sciences, Italy, 2000

Research Experience

- **Third Stage: Real Scientific Research, 2004-2009**
- ◆ Publishing in ISI Journals with good Impact Factor
- ◆ Promoted to Professor in 2006
- ◆ Establishing Jordan Research Group in Applied Math. in 2005
- ◆ Wining several national and international prizes
- ◆ Classified as One of the Top Ten Scientists in the World in Fractional Calculus According to Thomson Reuters

Research Experience

- **Jordan Research Group in Applied Mathematics**
- ◆ Researchers from more than 15 countries joined the group
- ◆ Become one of the best research groups in Fractional Calculus
- ◆ 5 Researchers in this group have been selected into the preliminary list of 'Highly Cited Researchers' in 2014 and 2015.

Classical publishing 1991-2001

- ◆ Introduction
- ◆ To choose a problem
- ◆ Formulation and literature review of the problem
- ◆ Solving the problem
- ◆ Writing up the paper
- ◆ Submitting the paper
- ◆ Publication of the paper

Electronic publishing 2001-present

- ◆ Introduction
- ◆ To choose a problem
- ◆ Electronic Literature review
- ◆ Solving the problem
- ◆ Writing up the paper
- ◆ Online submission of the paper
- ◆ Electronic Publishing of the paper
- ◆ Citation of the paper

Some important databases and websites for researchers

- ◆ Thomson Reuters: ISI Web of Science, JCR (Impact Factor)
- ◆ Scopus database: h-Index
- ◆ Research Gate: Impact point
- ◆ Google Scholar: H-index, G-index
- ◆ Academia.edu
- ◆ Social Networks: Facebook, Twitter, Instagram
- ◆ ScienceDirect: Elsevier
- ◆ Open Researcher and Contributor ID (ORCID): A unique digital identifier to which you can link your published articles and other professional activities, providing a single record of all your research.

Academic Honors and Prizes

- ISI Highly Cited Researcher, 2014 and 2015
- The World's Most Influential Scientific Minds, 2014
- Publishing more than 250 papers in ISI Journals
- Google Scholar: H-index=49, No. of Citations=7408
- Scopus Database : H-index=38, No. of Citations=4711
- Classified as One of the Top Ten Scientists in the World in Fractional Calculus According to Thomson Reuters

Nomination for Nobel Prize in 2016

- Nominated by many Scholars in the Arab World for Nobel Prize in Physics for his outstanding research in Fractional Calculus.
- ◆ Trying to break the psychological barrier between Arab Scientists and Nobel Prize
- ◆ Why the nomination is in Physics and not in Mathematics?



Rania Al Abdullah @QueenRania

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فخورة بالطاقات الأردنية، لنساند جميعاً البروفيسور شاهر المومني - أول أردني تم ترشيحه لنيل جائزة نوبل في الفيزياء

nobelprize.org/nobel_prizes/w...



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Rania Al Abdullah @QueenRania

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Proud of Prof Shaher Momani, the 1st Jordanian to be nominated for the Nobel in physics! Pls support him! nobelprize.org/nobel_prizes/w...



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Thank You