

**Banan S.Maayah**  
**Phd. Mathematics**  
**Al-Salt, Jordan**  
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### Assets:

Excellent communication, interpersonal, intuitive and leadership skills. Proven ability to work efficiently in both independent and teamwork environments. Quick learner with an ability to rapidly achieve organizational integration. Energetic and self - motivated team player. At ease in high stress environments requiring superior ability to effectively handle multi-task levels of responsibility.

### Academic state:

- Phd. in Applied Mathematics, Faculty of Science, The University of Jordan, with rating (Excellent), December 2012, (Application of Reproducing Kernel Hilbert Space Method to Some Ordinary Differential Equations of Fractional Order).
- Master in Applied Mathematics, Faculty of Science, Mutah University, with rating (Excellent), February 2009, (Synchronization and Phase Synchronization of Fractional Differential Chaotic System).
- BSc. in Mathematics, Faculty of Science, Mutah University, with rating (Excellent) June 2006.
- High School (Tawjihi). In Aqaba Secondary School .

### Experiences:

- Associate Professor, Nov. 2017-present.  
Mathematics Department, The University of Jordan, Amman, Jordan.
- Assistant Professor, Sep. 2013-2017.  
Mathematics Department, The University of Jordan, Amman, Jordan.
- Assistant Professor, Sep. 2014-Dec. 2015.  
Mathematics Department, University of Tabuk, Tabuk, Saudi Arabia.
- Lecturer, Second and Summer Semester (2012-2013)  
Princess Sumaya University for Technology.
- Lecturer, first, Second and Summer Semester (2012-2013),  
Mathematics Department, The University of Jordan, Amman, Jordan.
- Teaching at Ministry of Education in Jordan (2008-2009).

### Courses Taught

1. Calculus I, II, III.
2. Statistical Methods.
3. Ordinary differential equations I, II.
4. Partial differential equations.
5. Engineering Mathematics I, II.
6. Numerical Analysis.
7. Functional analysis.
8. Real analysis.
9. Applied Mathematics.
10. Mathematics Packages (Matlab, Mathematica)

### Publications :

- **B. Maayah**, S. Bushnaq, S. Momani, Omar Abu Arqub: Iterative multistep reproducing kernel Hilbert space method for solving strongly nonlinear oscillators, *Advances in Mathematical Physics*, Vol (2014), ID 758195, 7 pages.
- S. Bushnaq, **B. Maayah**, S. Momani, A. Alsaedi: A Reproducing Kernel Hilbert Space Method for Solving Systems of Fractional Integrodifferential Equations, *Abstract and Applied Analysis*, Vol (2014), ID 103016, 6 pages.
- S. Bushnaq, **B. Maayah**, S. Momani, O. Abu Arqub, M. Al-Smadi, A. Alsaedi: Analytical simulation of singular second-order, three points BVPs for Fredholm operator using computational kernel algorithm, *Journal of Computational and Theoretical Nanoscience*, vol 13(10), pp 1-9 (2016).
- **B. Maayah**, S. Bushnaq, M. Ahmad, S. Momani: Computational method for solving nonlinear voltera integro-differential equations, *Journal of Computational and Theoretical Nanoscience*, vol 13 (11), pp 7802-7806 (2016).
- **B. Maayah**, S. Bushnaq, M. Ahmad: Reproducing kernel Hilbert space method for solving fredholm integro-differential equations of fractional order, *Italian Journal of Pure and Applied Mathematics*, no. 36, pp 307-318 (2016).
- O. Arqub, **B. Maayah**: Solutions of Bagley-Torvik and Painlevé equations of fractional order using iterative reproducing kernel algorithm with error estimates, *Neural Computing and Applications*, DOI: 10.1007/s00521-016-2484-4 (2016) .
- A. AlHabees, **B. Maayah** and S. Bushnaq: Solving Fractional Proportional Delay Integro Differential Equations of First Order by Reproducing Kernel Hilbert Space Method, *Global Journal of Pure and Applied Mathematics*, vol 12 (4) pp 3499-3516, (2016).

- S. Bushnaq, **B. Maayah** and A. AlHabees: Application of multistep reproducing kernel Hilbert space method for solving giving up smoking model, *International Journal of Pure and Applied Mathematics*, vol 109(2) pp 311-324 (2016).
- A.K. Albzeirat, M. Zaini Ahmad, S. Momani and **B. Maayah**: Numerical solution of second-order fuzzy differential equation of integer and fractional order using reproducing kernel hilbert space method tools, *Far East Journal of Mathematical Sciences*, vol 101(6) pp1327-1351, 2017.
- **B. Maayah**, S. Bushnaq, S. Hasan and S. Momani, Numerical Solution of Fractional Fredholm Integro-Differential Equations Using Fuzzy Transform Method, *International Journal of Pure and Applied Mathematics*, In Press (2017).
- **B. Maayah**, S. Bushnaq, A. Alsaedi, S. Momani: An Efficient Numerical Method for Solving Chaotic and Non-Chaotic Systems, *Journal of the Ramanujan Mathematical Society*, vol 33(3), pp 219-231, 2018.
- O. Abu Arqub, **B. Maayah**: Numerical solutions of integrodifferential equations of Fredholm operator type in the sense of the Atangana–Baleanu fractional operator, *Chaos, Solitons and Fractals*, vol 117 (2018), pp 117–124, 2018.
- S. Momani, O . Abu Arqub, **B. Maayah**, F. Yousef, A. Alsaedi: A reliable algorithm for solving linear and nonlinear Schrödinger equations, *Applied and computational mathematics*, vol 17(2), pp 151–160, 2018.
- **B. Maayah**, F. Yousef, O . Abu Arqub, S. Momani, A. Alsaedi, Computing bifurcations behavior of mixed type singular time-fractional partial integrodifferential equations of Dirichlet functions types in Hilbert space with error analysis, *Filomat*, In Press (2018).
- O . Abu Arqub, **B. Maayah**, Modulation of reproducing kernel Hilbert space method for numerical solutions of Riccati and Bernoulli equations in the Atangana-Baleanu fractional sense, *Chaos Solitons & Fractals*, vol 125, pp 163–170, (2019)
- O . Abu Arqub, **B. Maayah**, Fitted fractional reproducing kernel algorithm for the numerical solutions of ABC - fractional Volterra integro-differential equations, *Chaos Solitons & Fractals*, In press , July (2019)

### Conference:

- **B. Maayah**, A Reproducing Kernel Hilbert Space Method for Solving Deferential Equations of Fractional order, *Graduate Thesis Conference 5, At University of Jordan*, April (2014).
- *International Workshop on Pure and Applied Mathematics- 2015*, University of Tabuk, Saudi Arabia (participate).
- **B. Maayah**. Computational method for different types of delay differential equations based on reproducing kernel method. *International Congress on Fundamental and Applied Sciences*, Istanbul-Turkey, 2016.
- The International Conference on Fractional Differentiation and its Applications. Amman, Jordan, 2018 (Committee).

### Workshops:

- Web of Science and EndNote training workshop, University of Jordan (2016).
- مهارات الاتصال الفعال واجراء المقابلات الشخصية (2015)
- التعليم الالكتروني في الجامعة الاردنية
- التحليل الاحصائي الاساسي باستخدام برمجية (SPSS)
- التحليل الاحصائي المتقدم باستخدام برمجية (SPSS)
- المكتبة الالكترونية
- التحسن المستمر في أداء الطلبة المبني على تقييم مخرجات التعلم
- تقييم اداء الطلبة بغير الاختبارات (تقييم الاداء)
- تقييم اداء الطلبة باستخدام البورتفوليو
- ( Google Scholar الباحث الاكاديمي )
- ( ResearchGate شبكة تواصل الباحثين )
- إجراءات و نماذج ضمان الجودة

### Abilities & professional work:

- Windows operating system from 98 to Windows 7 versions.
- Microsoft office Package.
- Mathematica Programming.
- Latex Programming.
- C++ Programming.

*Banan S.Maayah,*

**Languages:**

- Arabic: Mother tongue, Excellent in reading, speaking & writing.
- English: good in reading, speaking & writing.

**Personal Data:**

Date of birth:	July 3,1985
Place of birth:	Jordan
Nationality:	Jordanian
Gender:	Female
Marital status:	Married
Religion:	Muslim

**References:**

- Prof. Shaher Momani, [s.momani@ju.edu.jo](mailto:s.momani@ju.edu.jo), Department of Mathematics, The University of Jordan.
- Prof. Ahmed Alawneh, [aalawneh@ju.edu.jo](mailto:aalawneh@ju.edu.jo), Department of Mathematics, The University of Jordan.
- Dr. Omar Abu-Arqub, [o.abuarqub@bau.edu.jo](mailto:o.abuarqub@bau.edu.jo), Department of Mathematics, Al-Balqa' Applied University.