



Curriculum Vitae

1. Personal Information:

- **Name:** Nedal Mohammad Tahat
- **Sex:** Male
- **Date of Birth:** January 6, 1971.
- **Nationality:** Jordanian
- **Marital Status:** Married with two son and two daughters

2. Current Professional Position:

- **Associate Professor**, Department of Mathematics, Hashemite University, Zarqa-Jordan.

3. Official Address:

- Dept. of Mathematics, The Hashemite University, Jordan.
- E-Mail: nedal@hu.edu.jo, nedaltahat1971@yahoo.com
- Phone #: (00962)797048708

4. Academic Qualifications:

1. **Ph.D.**, 2010, Department of Mathematics, National University of Malaysia , Malaysia

(i) **Degree of Specialization:** applied number theory and algebra.

- (ii) **Title of Ph.D. Thesis:** The Development of Digital Signature Schemes Using Multiple Cryptography Assumptions in Algebra and Number Theory.
2. **M.Sc., 1998**, Department of Mathematics, AL al-Bayt University, Jordan.
- (i) **Degree of Specialization:** Topology.
- (ii) **Title of M.Sc. Thesis:** Homotopy Theory and Cleavable Spaces
3. **B.Sc., 1994**, Department of Mathematics, Yarmouk University, Jordan.

5. **Languages:**

Arabic (native), English. English was the language of study in all degrees.

6. **Administration Work :**

- Sept. 2017 – 2018 : Vice Dean of the Faculty of Science, Hashemite University, Zarqa-Jordan
- Sept. 2013— sept. 2017: Chairman of Mathematics Department, Hashemite University, Zarqa-Jordan
- During my work I participated in many committees on department level, college level, university level and community level.

7. **Academic Employment:**

- Feb. 2016— now: Associate Professor of Mathematics, Department of Mathematics, The Hashemite University, Jordan.
- Feb 2011-Jan. 2016: Assistance Professor of Mathematics, Department of Mathematics, The Hashemite University, Jordan.
- Sep.2010-Jun. 2011: Teaching Assistance, Dep. Of Mathematics, Irbid National University/Jordan
- Sep. 2001-July. 2006: Part time lecturer, Dep. of Mathematics, Ajman University/UAE
- Sep. 1999-July 2007: Mathematics teacher, Ministry of Education, UAE.
- Sep. 1994-Aug.1999: Mathematics teacher, Ministry of Education, Jordan

8. H-Index:

- My h-index is **9** according to Scopus database.
- My h-index is 11 according to Google Scholar
- My i10-index is 11 according to Google Scholar
- Citations 430

9. Field of Specialization and Areas of Researcher Interest

Number Theory; Digital Signature Schemes; Cryptography, applied Mathematics

10. Teaching Experience:

1. Calculus I
2. Calculus II
3. Calculus III
4. Ordinary Differential Equations
5. Linear algebra (I)
6. Number theory
7. Graph Theory
8. Abstract algebra
9. Topology
10. Special functions
11. Discrete mathematics
12. Abstract algebra
13. Mathematical for engineering
14. Principles of Statistics
15. Mathematics for Economics and Business

11. Participation in major committees

1. Society Level

- Member of proficiency test committees in the ministry of higher education 2017.
- Member of the committee for estimating the rates of non-Jordanian certificates in the Ministry of Higher Education 2017-up now.
- Referee for some science journals in Mathematics.

2. College Level

- Member of the Council of the College of Science as Chairman of the Mathematics Department (from Sep. 2013- Sep.2017)
- Member of the Council of the College of Science as the Vice Dean of Faculty of science (from Sep. 2017-Now)
- Chairman of Scientific Research Council Committee (from Sept. 2017-Now)
- Member of the Degree Plan Committee)from Sept. 2017-Now)
- Member of the Appointment and Promotion committee (from Sep. 2017-Now)
- Chairman of the Graduate Students Affairs committee (from Sep. 2017-Now)
- Member of Examination and Schedules committee (from Sep. 2013-Now)

3. Department Level

- Member of Scientific Research Council Committee (from Sept. 2011-2013)
- Chairman of Scientific Research Council Committee (from Sep. 2013-Sep 2017)
- Chairman of the Degree Plan committee (from Sep. 2013-Sep.2017)
- Chairman of the Appointment and Promotion committee (from Sep. 2013-Sep.2017)
- Member of the Bachelor of Science Degree Plan committee (from. Sep 2013-Sep 2017)
- Member of the Social Committee (from Sep. 2013-Sep.2017)
- Member of the seminars Committee (from Sep. 2013-Sep.2017)

12. Reviewer for the Following Journals:

1. International Journal of Network Security
2. Journal of Computers
3. International Journal Security and Networks
4. Journal of Fixed Point Theory and applications,
5. Journal of Inequalities and Applications,
6. Abstract and Applied Analysis

7. Journal of Computers
8. Neural Computing and Applications.
9. Journal of Mathematical Analysis
10. Mathematical Problems in Engineering
11. Applied Mathematics & Information Sciences.
12. Italian Journal of Pure and Applied Mathematics
13. Journal of Advances in Mathematics and Computer Science
14. Mathematical Sciences
15. International Journal of Applied and Computational Mathematics

13 . Database Reviewers

Mathematical Reviews/MathSciNet

14. List of Published and Accepted Papers:

1. **Nedal Tahat**, A. K. Alomari, Obaida M. Al-Hazaimah & Mohammad F. Al-Jamal,” An efficient self-certified multi-proxy signature scheme based on elliptic curve discrete logarithm problem, *Journal of Discrete Mathematical Sciences and Cryptography*, **Published online: 07 May 2020**. <https://doi.org/10.1080/09720529.2020.1734293>. **(2020) (Scopus Q3, Taylor and Francis)**
2. **Nedal Tahat**, Ashraf A. Tahat, Maysam Abu-Dalu, Ramzi B. Albadarneh, Alaa E. Abdallah, Obaida M. Al-Hazaimah, A new RSA public key encryption scheme with chaotic maps, *International Journal of Electrical and Computer Engineering* , Vol. 10, No. 2., pp. 1430-1437. **(2020) (Scopus Q2)**.
3. **Nedal Tahat**, Ashraf A. tahat, “Identity-Based Threshold Group Signature Scheme Based on Multiple Hard Number Theoretic Problems” *International Journal of Electrical and Computer Engineering*, vol.10, No.4. **(2020) (Scopus Q2)**.
4. Mohammad S. Hijazi, **Nedal Tahat***, Ashraf A. Tahat , Raft Abdelrahim and Eddie S. Ismail,” Authenticated Encryption Scheme Based on ECDLP and DLP, *Applied Mathematics & Information Sciences*. 14, No. 3, 425-430 **(2020) (Scopus)**.
5. **Nedal Tahat**, Ashraf A. Tahat, Ramzi B. Albadarneh, Talal A.Edwan , ” Design of Identity-Based Blind Signature Scheme Upon Chaotic Maps, *International Journal of Online and Biomedical Engineering*, Vol.16, No.05, **(2020) (Scopus Q3)**.
6. **Ramzi B. Albadarneh , A.K. Alomari**, Nedal Tahat, **Iqbal Batiha**,” Analytic solution of nonlinear singular BVP with multi-order fractional derivatives in electrohydrodynamic flows , *TWMS Journal of Applied and Engineering Mathematics* , **accepted, (2020)**.

7. Obaida M. Al-Hazaimeh, Mohammad F. Al-Jamal, A.K. Alomari, Mohammed J. Bawaneh, **Nedal Tahat**, 'Image encryption using anti-synchronization and Bogdanov transformation map, *Int. J. of Computing Science and Mathematics*, **accepted, Vol. X, No. Y (2019)**.
8. A.K. Alomari, Mohammad F. Al-Jamal and **Nedal Tahat**, 'Anti-Synchronization of Nonidentical Fractional Order Hyperchaotic Systems,' *Int. J. of Computing Science and Mathematics*, **accepted Vol. x, No. x, 201X .(2019)**
9. Djamel Herbadji, Nadir Derouiche, Aissa Belmeguenai, Nedal Tahat and Selma Boumerdassi A new colour image encryption approach using a combination of two 1D chaotic map,' *Int. J. Electronic Security and Digital Forensics*, **accepted, Vol. x, No. x,(2019)**
10. **Nedal Tahat**, A. K. Alomari, Ajab Al-Freedi, Obaida M. Al-Hazaimeh and Mohammad F. Al-Jamal , " An Efficient Identity-Based Cryptographic Model for Chebyhev Chaotic Map and Integer Factoring Based Cryptosystem" *Journal of Applied Security Research*, 2019, Vol. 14, No. 3, 257–269. **(2019) (Scopus, Taylor and Francis)**
11. **Nedal Tahat**, Eddie S. Ismail and Ashraf H. Aljammal," A cryptosystem based on chaotic maps and factoring problems" *Int. J. Mathematics in Operational Research*, Vol. 15, No. 1, 55-64. **(Scopus Q3) (2019)**.
12. **Nedal Tahat**, Rania Shaqboua, Emad E. Abdallah, Mohammad Bsoul, Wasfi Shatanawi,"A new digital signature scheme with message recovery using hybrid problems, *International Journal of Electrical and Computer Engineering*, Vol. 9, No. 5, pp. 3576-3583. **(2019) (Scopus Q2)**.
13. **Nedal Tahat** and Mohammad Hijazi, A New Digital Signature Scheme Based on Chaotic Maps and Quadratic Residue Problems, *Applied Mathematics and Information Sciences*. **13**, No. 1, 115-120 **(2019) (Scopus)**
14. **Nedal Tahat** and Eddie Esmail' Improvement of Signature Scheme Based on Factoring and Chaotic Maps, *International Journal of Electronic Security and Digital Forensics*, *Int. J. Electronic Security and Digital Forensics*, Vol. 10, No. 2, **(2018) (Scopus (Elsevier))**
15. **Nedal Tahat**, Partially Blind Signature Scheme Based on Chaotic maps and Factoring Problem. *Italian Journal of Pure and Applied Mathematics*. N. 39. (165-177) , **(2018) (ISI, Scopus)**
16. **Nedal Tahat** and Emad Abdallah, Hybrid publicly verifiable authenticated encryption scheme based on chaotic maps and factoring poroblems, *Journal of Applied Security Research*, vol.13. No.3. pp. 304-314. **(2018) (Scopus, Taylor and Francis)**
17. Ashraf H Aljammal, Ahmad M Manasrah, Alaa E Abdallah, and **Nedal M Tahat**' A new architecture of cloud computing to enhance the load balancing. *International Journal of Business Information Systems*. Vol. 25, No. 3. P. 393-405. **(2017) (Scopus (Elsevier))**
18. **Nedal Tahat** . Convertible multi-authenticated encryption scheme with verifiable based on elliptic curve discrete logarithm problem. *International Journal of Computer Applications in Technology*.vol. 54, No.3, **2016 (Scopus (Elsevier))**
19. Feras Bani-Ahmad1, "Mohd Taib" Shatnawi, **Nedal Tahat** and Safaa Shatnawi. A New Kind of Digital signature scheme using golden matrices based on factoring problem. *International Journal of Pure and Applied Mathematics*. Vol. 107 No. 1 **2016**, 49-57. **(Scopus)**.
20. **N. Tahat** and E Abdallah, A proxy partially blind signature approach using elliptic curve cryptosystem. *International Journal of Mathematics in Operation Research*. , V. 8, No. 1, **2016 (Scopus (Elsevier))**.

21. M. Bsoul, A Abdallah, K Almkhadmeh and **N. Tahat**, A Round-based data replication strategy. *IEEE Transactions on Parallel and Distributed Systems*. Vo.26. **2015 Impact Factor: 2.173**, (**ISI**).
22. **Nedal Tahat**, Khaled Alzubi , Maysam Abu-Dalu and Ala Qadomi. An efficient stamped proxy partially blind signature scheme utilizing elliptic curve cryptosystem. *International Journal of Pure and Applied Mathematics*. V.105, No. 2 . **2015**,pp. 297-309. (**Scopus**)
23. **Nedal Tahat** and Feras Bani Ahmad. Ordering on Vague Soft Set. *Global Journal of Pure and Applied Mathematics*. V. 11, N. 5 (**2015**), pp. 3189–3193 (**Scopus**)
24. **N. Tahat** and E. Abdallah. A New signing algorithm based on elliptic curve discrete logarithms and quadratic residue problems. *Italian Journal of Pure and Applied Mathematics*. Vo.32. pp. 125-132. (**2014**). (**ISI, Scopus**)
25. **N. Tahat**, A new proxy signature scheme with a semi-trusted third party based on elliptic curve discrete logarithm problem. *Int. J. Security and Networks*, Vol. 8, No. 4, pp.207-2011 (**2013**). (**Scopus (Elsevier)**)
26. **N. Tahat**, A new conic curve digital signature scheme with message recovery and without one-way hash functions. *Annals of the University of Craiova, Mathematics and Computer Science Series* Vol. 40(2), pp. 148-153 (**2013**). (**Scopus , monitored by Thomson ISI**)
27. **N. Tahat**, Fail-Stop designated recipient signature scheme based on elliptic curve discrete logarithm problems. *Italian Journal of Pure and Applied Mathematics*. Vo.31.PP. **205-218**. (**2013**). (**ISI, Scopus**)
28. **N. Tahat**, K. A. Alzu'bi and I. Abu-Falahah' An Efficient Self Proxy Signature Scheme Based on Elliptic Curve Discrete Logarithm Problems. *Applied Mathematical science*, Vol. 7, no. 78, 3853 – 3860. (**2013**), (**Scopus**)
29. A.K. Alomari, F. Awawdeh, **N. Tahat** , F. Bani Ahmad and W. Shatanawi, Multiple solutions for fractional differential equations: Analytic approach' *Applied Mathematics and Computation'* vol. 219.Issue 17, pp.8893-8903.(2013) (**Elsevier, ISI , Impact Factor 1.454**).
30. V. Rajic, S. Radenovic, W. Shatnawi and **N. Tahat**. Common fixed point result for weakly is one increasing mappings in partially ordered spaces. *LE Matematiche*. 68 (2), pp.191-204
31. **N. Tahat**, E.S. Ismail and Feras Bani-Ahmad. ID-Based signature scheme using the conic curve over Z_n on two hard problem. *International Journal of Pure and Applied Mathematics*. V. 77. No. 3 pp, 443-452.(**2012**) . (**Scopus**)
32. **N. Tahat** , Z. Mustafa and A. K. Alomari' New ID-Based digital signature scheme on factoring and discrete logarithms . *Applied Mathematical science*, vol. 6., no.28,pp.1363-1369. (**2012**) (**Scopus**)
33. **N. Tahat**. A new design partially blind signature based on two mathematical problem. *World Academy of Science, Engineering and technology* 68.pp. 1321- 1325. (**2012**)
34. **N. Tahat**, H. Aydi, E. Karapinar and W. Shatanawi. Common fixed point for single- valued and multi-valued maps satisfying a generalized contraction in G-metric spaces. *Fixed Point Theory and Application*.48. (**2012**): (Springer, **ISI, Impact Factor: 2.49**)
35. H. Aydi, W. Shatanawi, M. Postolache, Z. Mustafa and **N. Tahat**. Theorem for Boyd- Wong-Type contractions in ordered metric spaces. *Abstract and Applied Analysis*. Vo **2012** Article ID 359054.(**ISI , Impact Factor: 1.101**)
36. W. Shatanawi, M. Abbas, H. Aydi and **N. Tahat**. Common coupled coincidence and coupled fixed point in G-metric spaces. *Nonlinear Analysis and Application*, vol. 2012. Article ID jnaa-00162. (**2012**)
37. W. Shatanawi, H. Nashine and **N. Tahat**. Generalization of some coupled fixed results on

partial metric spaces. *International Journal of Mathematics and Mathematical Sciences*. Volume, Article ID 686801. (2012) (Scopus)

38. E. Ismail and N. Tahat. The modified signature scheme based on factoring and discrete logarithms. *Information Security Journal*.; 20(4-5): pp.245-249. (2011) (Taylor and Francis , Scopus)
39. E. Ismail and N. Tahat. A new signature scheme based on multiple hard number theoretic problems. *ISRN Communication and Networking*. Article ID 231649. (2011). (Hindawi, Scopus)
40. W. Shatanawi, Z. Mustafa and N. Tahat. Some coincidence point theorem for nonlinear contraction in ordered meyttric spaces. *Fixed Point Theory and Application*. 68. (2011). (ISI, impact factor: 2.49)
41. N. Tahat, S. Shatnawi and E. Ismail. A new partially blind signature based on factoring and discrete logarithm. *Journal of Mathematics and Statistics*., 4(2): 124-129. (ISSN 1549-3644)). (2008) (Scopus)
42. N. Tahat, E. Ismail and R. .R. Ahmad. A new blind signature scheme based on factoring and discrete logarithm. *International Journal of Cryptology Research*.. 1(1): 1-9.(ISSN 1985-5753). (2009) (Scopus)
43. E. Ismail, N. Tahat and R. R. Ahmad. A new signature scheme based on factoring and discrete logarithms. *Journal of Discrete Mathematical and Cryptography*., 12(3): 313-318. (ISSN 0972-0510).)2009). (Scopus (
44. E. Ismail , N. Tahat and R. R. Ahmad. A new digital signature scheme based on factoring and discrete logarithms. *Journal of Mathematics and Statistics*.. 14:pp. 2336-2346 . (2008) (Scopus)

15 . Proceeding:

1. N. That, E Ismail and I. Hashim. A new signature scheme based on elliptic curve discrete logarithm and factoring problems. *Proceedings of International Symposium on New Development of Geometric Function Theory and Its Applications UKM (Malaysia)*, 1: 471- 475.
2. N. Tahat , E. Ismail , and R. R. Ahmad. A new blind signature scheme based on factoring and discrete logarithm. *Proceedings of International Cryptology Workshop and Conference, PWTC, Kuala Lumpur*. 26-33. 2008.
3. N. That, E Ismail and I. Hashim. A new signature scheme based on factoring and discrete logarithms. *Proceedings of Seminar on Engineering Mathematics*: 36-40. 2008

16. Books:

- **Nedal Tahat**, Digital Signature Schemes Based on Multiple Hard problems, LAP LAMBERT Academic Publishing (August 24, 2011) **ISBN-10:** 3845437936.

17. Conferences Presentations, Workshops and Seminars:

1. International Cryptology Workshop & Conference 2008. Malaysia
2. International Symposium on Geometric Function Theory and its Applications Nov. 2008. Malaysia.
3. Seminar on Engineering Mathematics on Jun. 2008. Malaysia.
4. World Academy of Science, Engineering and Technology, France (2012).
5. International Conference on Recent Advances In Pure and Applied Mathematics (**ICRAPAM**) (11 - 15 MAY 2017) Palam wing Ephesus Restor –Kusadasi Turkey.

18. Academic Activities:

1. Sept. 2017 –Up now: Vice Dean of the Faculty of Science, Hashemite University, Zarqa-Jordan
2. The chairman of the Mathematics Department, The Hashemite University, **2013-2017**
3. A coordinator of pure mathematics courses for several times in The Hashemite University.
4. Member in many committees in the faculty of science in The Hashemite University.
5. Representative of Department of Mathematics in faculty of science council in the Hashemite University for academic year 2012/2013.
6. The effectiveness of teaching (88%)

19. Training Courses:

- **Feb 2005~Apr 2005** : International Computer Driving License (ICDL), UAE
- **Jun 2008~May 2008** : English Proficiency Course for Postgraduate Student, Malaysia
- **Feb.2008** : Expository Workshop to Mathematica V6, Malaysia

- **Nov. 2008 : Latex Workshop** , Malaysia
- **March 27~31(2011)** : Learning Management System, Virtual Class Room, Class Capturing System, Authoring Tool, E-Learning Center at The Hashemite University
- **2000~2007** : variety of Methods for Teaching Mathematics, UAE
- **2006-2005:** Workshop in Smart, UAE
- **March 27-31,(2011)** Training course entitled “ Teaching Technology and Assessment in Higher Education” (The Hashemite University)

20. Methodology:

The teaching method I personally adopt can be summed up in the following:

First of all, at the beginning of each semester, I usually discuss with my student the plan of the course, including content, evaluation policy, course objectives and the relation between the current course and the previous courses.

In the classroom, I do my best to make myself as clear as possible and deliver the lecture in such a way that sound both organized and logical. Sometimes, I motivate the student and arouse their interest by adducing real example derived from practical life.

In each course, I ask the student to refer to adequate references for each course, and motivate them to get as much benefits as they can. Moreover, I motivate and help them think for themselves by making discussion and listening to their opinions and answers by having a brainstorming activity.

My student are encouraged to freely express their ideas, ask questions and discuss different matters. When writing the exam questions, I make sure that these questions actually fit in with the course objective and after the exam is finished, I discuss the exam problem in details with the students.

I am very particular about the lecture time and consider it my top priority. I respect my students and treat them in a very kind manner. I teach them to discipline themselves and organize their time and ideas.

Finally, I strongly believe that a good instructor must be friendly, fair and firm.

21. References:

1. Prof. Dr. Wasfi Shatanawi: Prince Sultan University, KSA.
Tel: 00966534435260: Email: wshatanawi@psu.edu.sa
2. Prof. Dr. Abdullah Tallafha, Jordan University,
Tel: 00962777973539
Email: atallafha@hotmail.com
3. Prof. Dr. Ahmed Alrhayyel, Yarmouk University,
Email: alrhayyel@yahoo.com
Tel: 00962776738638
4. Dr. Zead Mustafa , Qatar University
Tel. 0097433317989
Email. zmagablh@hu.edu.jo

