



Curriculum Vitae



Personal details:

Name: *Ibrahim Othman Hamad*
Date of Birth: *2nd Aug 1970*
Place of Birth: *Shaqlawa, Erbil - Kurdistan Region, Iraq*
Marital Status: *Married, Four children*
Home Address: *Zin City, Shaqlawa Road, (Erbil) - Kurdistan Region, Iraq*
Institute Address: *Department of Mathematics, College of Science,
University of Salahaddin-Erbil,
Hawler (Erbil) - Kurdistan Region, Iraq.*

College Web Page: science.su.edu.krd **Email:** info@su.edu.krd, science@su.edu.krd

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Personal academic webs:

-  Academic. Site : <https://academics.su.edu.krd/ibrahim.hamad>
-  ORCID ID : <https://orcid.org/0000-0002-3994-1866>
-  Google Scholar : <https://scholar.google.com/citations?hl=en&user=WPB4LloAAAAJ>
-  Research Gate : https://www.researchgate.net/profile/Ibrahim_Othman_Hamad
-  LinkedIn : <https://www.linkedin.com/in/ibrahim-hamad-2b019895/>
-  Google+ : <https://currents.google.com/101246595491615166391>
-  Acadimia : <https://independent.academia.edu/iothmanhamad>
-  Arab Faculty St : <https://arabscientists.azurewebsites.net/Profile/Index/Ibrahim>
-  Scopus : <https://www.scopus.com/dashboard.uri?origin=&zone=TopNavBar>
-  Facebook : <https://www.facebook.com/ibrahim.othmanhamad>

Education:

Ph.D.

Date: *25-05-2007* (Discussion), *29-07-2007* (Awarded)
Title: *Generalized Curvature and Torsion in Nonstandard Analysis*
Place of Attainments: *Mathematics Department, College of Science,
University of Salahaddin-Erbil,
Hawler (Erbil), Kurdistan Region, Iraq.*
Supervisor: *Professor Dr. Tahir Hassan Ismail,*
Supervisor Address: *Mathematics Department,
College of Computer Science and Mathematics,
University of Mosul, Mosul, Iraq. Email: tahir_hs@yahoo.com*

M. Sc.

Date: *02-08-2000*(Discussion), *16-09-2000* (Awarded)
Title: *A Nonstandard Study on The Taylor Series Development*
Place of Attainments: *Math. Dept.-College of Sci.-Univ. of Salahaddin-Erbil, Iraq*
Supervisor: *Professor Dr. Tahir Hassan Ismail,*

B. Sc.

Date: *27-06-1992*
Place of Attainments: *Math. Dept.-College of Sci.-Univ. of Salahaddin\Erbil-Iraq*
Title of the Graduation Project:
Number of Limit Cycles of Nonlinear Autonomus Homogeneous System of Degree Three

Academic records (Employment)

- 2009 – Present : *Assistant (Associate) Professor*, (Awarded **22.09.2009**).
- 2004 – 2007: *PhD student*.
- 2005 – 2009: *Lecturer*, (Awarded **21.09.2005**).
- 2000 – 2005: *Assistant Lecturer, Member of Mathematics Faculty*, (Awarded **02.10.2000**).
- 1998 – 2000: *M.Sc Student*.
- 1993 – 1998: *Assistant Researcher in Mathematics Department*.

Supervising M.Sc. & Ph.D. Student

1. Sami Ali Hussein: *Ph. D. , co-supervised with Prof. Dr. Tahir Hassan Ismail 2010–2012;*
Title: A Characterization of $\beta\theta$ and $P\theta$ -Monads in Topology. University of Mosul\ College of Computer Science and Mathematics\ Department of Mathematics.
2. Bakhtiar Radha Abul-Rahman: *M.Sc. (2013- 2014)*.
Title: Some Nonstandard Treatments of Bessel Function.
3. Sebar Muhamad Haji : *M.Sc. (2014- 2015)*.
Title: On Some New Type of Functions in Nonstandard Analysis.
4. Saman Ahmad Bapir : *M.Sc. (2015- 2016)*.
Title: On Some Nonstandard Study of Compactness in metric Spaces.
5. Mardan Amin Pirdawd : *M.Sc. (2015- 2016)*.
Title: On Some Nonstandard Studies of Analyticity Near Singularity.
6. Ala Omer Hasan : *M.Sc. (2019- 2021)*.
Title: Nonstandard Completion of Non-complete Metric Spaces.
7. Chimam Muhammad Qader : *Ph.D. (2020- 2024)*.
Title: Integrability and Canard Solutions of Polynomial Vector Field.

Committees Membership and Positions

- 1993 – Present : *Member of the Kurdistan Region and Iraq Mathematics Society*.
- 2020 – Present : *Member of the Kurdish Mathematics Society*.
- 2000 – Present : *Member of the Committee of Students Guidance*,
- 2000 – Present : *Member of most Committees in the College of Science*,
- 2002 – Present : *Scientific & Postgraduate Committee of the Mathematics Department*,
- 2020 – Present: *Professional Membership of The Institute for Engineering Research and Publication (IFERP)*, <https://dashboard.iferpmembership.in/index.php>
- 2000 – 2004: *Member of College Central Examinations Committee*,
- 2002 – 2004: *Department'st Seminar & Training Committee*,
- 2007 – 2008 : *External Scientific Evaluator of Some M.Sc Theses;*
 - 2007 – **Shadman R. Karim**: On Fuzzy B-Sep. Axioms in Fuzzy Top. Fuzzy Spaces, Koya Univ.
 - 2008 – **Hero W. Salih** : General Liapunov Quantities for the Study Lopsided Sys, Koya Univ.
- 2007 – Present : *Member of some of an Exam. Committees of M.Sc & Ph.D. Students;*
 - 2007 – **Farouk A. Mina** : Characterizations of Topological Spacesin NSA, Mosul Univ. *M.Sc*.
 - 2008 – **Mahdi H. Shaxi** : Approx. Method for Solving SL2DFIE of 2nd Kind, *M.Sc*.
 - 2010 – **Chiman M. Qadr** : Stability of Bifurcation PS of Tobin Benhabib Sys, Salahaddin Univ. *M.Sc*
 - 2014 – **Fateh S. Aziz** : On Subordination and superordination of one and multivalued functions, Salahaddin Univ. *Ph.D*.
 - 2015 – **Andam A. Mustafa**: Computational Methods for Solving Glycolysis System in one Dimension, Salahaddin Univ. *M.Sc*.
 - 2015 – **Suham M. Ali** : Automatic Continuity of σ -c-derivations on Some Algeb.s, Karkuk Univ. *Ph.D*.
 - 2018 – **Ramadhan A. Muhammad** : On Soft Topological Spaces with Some Appl., Duhok Univ. *Ph.D*.
 - 2019 – **Dilan F. Ahmed** : Study of Subspace Convex-Cyclic Operators with their Properties and Generalized Drazin Inverse, Univ. of Sulaimani *Ph.D*.

- 2020 – **Fuad W. Khdhr** : New multi-step iterative methods for nonlinear problems with some applications, Salahaddin Univ. *Ph.D.*
- 2022 – **Darawan Z. Mohammed** : Approximation of S-numerical range of polynomial operator matrices, Salahaddin Univ. *M.Sc.*
- 2022 – **Kurda H. Salih** : Spectral Value and it's Properties of Operators, Univ of Sulaimani. *M.Sc.*
- 2007 – 2012: *Coordinator of the Scientific Committee of the Department of Mathematics.*
- 2008 – 2011: *Member and Chairman of the College Final Exam. Comm. of Higher Edu. (M.Sc.+Ph.D.),*
- 2010 – 2011: *Postgraduate & Scientific Affairs Assistant of the Dean of the College and Member of College Concil,*
- 2010 *Examiner and Member of Comprehensive Examination Committee of Ph.D. Students in both College of Science and Edu. at University of Salahaddin,*
- 2011 *External Scientific Evaluator of Mathematics Department for Soran University,*
- 2011 – 2013: *Member of the College Scientific Promotion committee.*
- 2014 *Organizer member of CIMPA-KURDISTAN-IRAQ research school, Inverse problems: Theory and applications, University of Salahaddin-Erbil, Kurdistan-Iraq, May 5-14, 2014, <http://www.cimpa-icpam.org/spip.php?article564>*
- 2014 – 2020: *Editorial Board member of International Journal of Enhanced Research In Science Technology & Engineering (IJERSTE) indexed in Thomson Reuters databases [Welcome to ER Publications, India:](http://www.ijerste.com) ISSN 2319-7463*
- 2015 *Reviewer of the journal **General Mathematics Notes, Jordan** ISSN 2219-7184*
- 2016 *Reviewer of the journal **Annals of Fuzzy Mathematics and Informatics, Korea** ISSN: 2093-9310*
- 2018 *Scientific Committee member and Session Chair of the National Conference on Pure and Applied Mathematics and Mathematical Education (NCPAME2018) Ishik University 11-12/02/2018. Erbil, Kurdistan Region,, <http://www.ishik.edu.iq/conf/ncpame/>*
- 2020 *International Advisory Board and Organizer member of "3rd International Conference on Recent Trends in Multi-Disciplinary Research (ICRTMDR-20), organized by Institute for Engineering Research and Publication(IFERP), 26th and 27th December 2020, Maldives, [International Conference 2020 | Recent Trends in Multi-Disciplinary Research - IFERP 2020 \(icrtmdr.com\)](http://www.iferp.com), International Advisory Committee - ICRTMDR Maldives [Conference 2020](http://www.icrtmdr.com) ,with special message on conference website*
- 2020 – Present: *Professional Member of Institute for Engineering Research and Publication (IFERP), <https://iferp.in/>.*
- 2020 – Present: *Mathematics Stack Exchange network, [User Ibrahim Othman Hamad - Mathematics Stack Exchange](https://math.stackexchange.com)*
- 2021 *International Advisory Board and Organizer member of "4rd International Conference on Recent Trends in Multi-Disciplinary Research (ICRTMDR-21), organized by Institute for Engineering Research and Publication(IFERP), 23th and 24th December 2021, Maldives, <https://icrtmdr.com/past-conference-report.php>*
- 2022 *Scientific Committee member and Session Chair of the Third Int. Conference of Mathematics and its Applications (TICMA2022), University of Salahaddin-Erbil, Kurdistan-Iraq, 29-31/08/2022, <https://conferences.su.edu.krd/su/ticma2022/>*
- 2023 *Organizer committee member of International Conference on Advances in Computer Engineering, Communication Systems and Business Development (ICACECSBD-2023)"- VIRTUAL CONFERENCE on 26th & 27th May, 2023, <https://www.icacecsbd.org/Organizing-committee.php>*
- 2024 *International Advisoryorganizer committee member of 4th International Conference on Engineering, Social-Sciences and Humanities (ICESSU-2024) University of Mindanao TAGUM College, Philippines, 19,20.04.2024, [International Engineering Conference | Social Science and Humanities Conferences 2024 - ICESSU](http://www.icessu.com)*

Visiting

- 2011 *Institute de Mathematiques de Jussieu - Paris, France; for a period one month,*
- 2006 *(INSPEN), University of Putra - Kuala Lumpur, Malaysia, for a period 6 month as a second part of PhD research, unfortunately, we were unable to in compliance with the above invitations because of the politic situation of Iraq at that time*

Conferences and Schools:

Schools

- 1- *CIMPA-UNESCO-IPM School, Repres. Theory of Algebras,15-25-6/, 2008.Tehran, Iran.*
- 2- *Research School CIMPA UNESCO – EGYPT, Recent Development in the Theory of Elliptic Partial Differential Equations 25/1-3/2/2009. Alexandria, Egypt.*
- 3- *CIMPA-KURDISTAN-IRAQ research school, Inverse problems: Theory and applications, University of Salahaddin-Erbil, Kurdistan-Iraq, May 5-14, 2014, <http://www.cimpa-icpam.org/spip.php?article564>.*

Conferences

- 1- *International Congress "Nonstandard Methods and Applications in Mathematics-NSM" 25-31/5/ 2006, Pisa,Italy. <https://people.dm.unipi.it/nsm2006/>*
- 2- *The Second Conference on Mathematical Sciences (CMS'2008) 22-23/10/2008. Jordan, Zarqa.*
- 3- *The Second International Conference of Mathematics 26-30/10/2008. Syria, Aleppo.*
- 4- *First Iraq-French Mathematics Conference, Cooperation with College of Science 14 -18/11/2009. Hawler (Erbil) - Kurdistan Region, Iraq.*
- 5- *The National Conference on Pure and Applied Mathematics and Mathematical Education, Ishik Unviversity (NCPAME2018) 11-12/02/2018. Erbil, Kurdistan Region, <http://www.ishik.edu.iq/conf/ncpame/>*
- 6- *3rd International Conference on Recent Trends in Multi-Disciplinary Research (ICRTMDR-20), 26th - 27th December 2020., (Maldives), online, <https://icrtmdr.com/>*
- 7- *Celebrating Claude Levesque's, Damien Roy's and Michel Waldschmidt's birthdays Joint with the sixth mini symposium of the Roman Number Theory Association May 16-21, 2022, Marina di San Gregorio, Patù (Lecce), Italy, <http://www.rnta.eu/CLDRMW210/> <http://www.rnta.eu/CLDRMW210/participants.html>.*
- 8- *Third International Conference of Mathematics and its Applications (TICMA2022), University of Salahaddin-Erbil, Kurdistan-Iraq, 29-31/08/2022, <https://conferences.su.edu.krd/su/ticma2022/>*
- 9- *9th Scientific Conference of University of Garmian: Pure Sciences and Technology and Technology Applications (SCUG-PSTA-2022), Oct. 26, 2022, College of Education/ University of Garmian/ Kurdistan region, Iraq, <https://psta.garmian.edu.krd/home>.*
- 10- *An International, Introducing Mendeley Reference Manager Designed Today's Research Workflow, Nov. 9, 2023, College of Science/ University of Salahaddin-Erbil/ Kurdistan region, Iraq.*
- 11- *International Conference on Advances in Computer Engineering, Communication Systems and Business Development (ICACECSBD-2024), Organized by IFERP, 26-27, May 2024, Maniar College of Computer and Management, Nagpur, India, Virtual online Conference. <https://www.icacecsbd.org/>*

12- International Advisory organizer committee member of 4th International Conference on Engineering, Social-Sciences and Humanities (ICESSU-2024), Virtual online Participant, University of Mindanao TAGUM College, Philippines, 19,20.04.2024, [International Engineering Conference | Social Science and Humanities Conferences 2024 - ICESSU](#)

Publications:

Papers:

1. **Existence Canard Solutions For Four Dimensional Hindmarsh-Rose Model with Respect to Infinitesimal Parameter**, (with **Chiman M. Qader & Waleed H. Aziz**), ZANCO Journal of Pure and Applied Sciences, (2024), <http://dx.doi.org/10.21271/ZJPAS.36.2.9>
2. **Rank Two Integral Aspects of Three dimensional Lotka-Volterra Equations with Nonstandard Analysis**, (with **Chiman M. Qader & Waleed H. Aziz**), Differential Equations and Dynamical Systems, Springer, (Oct., 2023), <https://doi.org/10.1007/s12591-023-00664-9>
3. **Non-Existence of Polynomial First Integrals of a Family of Three-Dimensional Differential Systems**, (with **Chiman M. Qader & Waleed H. Aziz**), Palestine Journal of Mathematics, Vol. 12(Special Issue I) (2023), 59–72 (Palestine) Scopus, Cite Score 0.1, Q4, <https://pjm.ppu.edu/vol/1339>
4. **Integral Aspects of (1:-3:1) Resonance Lotka-Volterra Equations with Nonstandard Analysis**, (with **Chiman M. Qader & Waleed H. Aziz**), arXiv:2207.14655v1, (2022) <https://arxiv.org/abs/2207.14655v1>, DOI: <https://doi.org/10.48550/arXiv.2207.14655>
5. **Some Nonstandard Treatment of the Singularity in the Differential Equations**, (with **Mardan A. Pirdawood**), Special issue for Passer Journal of Basic and Applied Sciences, No. 10, (2022) 142-159 https://passer.garmian.edu.krd/article_161691.html, DOI: <https://doi.org/10.24271/psr.2022.161691>
6. **Some Nonstandard Studies on Complete and Non-Complete Metric Spaces**, (with **Ala O. Hassan**), *Journal of Univ. of Duhok*, To Appear.
7. **On Infinitesimal ω -Smooth Functions**, ZANCO Journal of Pure and Applied Sciences, (ZJPAS), 32 (5); (2021) 1-16, <https://zancojournals.su.edu.krd/index.php/JPAS> DOI: <http://dx.doi.org/10.21271/ZJPAS.32.0.0>
8. **Nonstandard Completion of Non-complete Metric Spaces**, (with **Ala O. Hassan**), ZANCO Journal of Pure and Applied Sciences (ZJPAS), 33 (4); (2021) 129-135, <https://www.iasj.net/iasj/article/213255> , DOI: <http://dx.doi.org/10.21271/ZJPAS.33.4.13>
9. **Nonstandard Solutions for Ordinary Differential Equations near Singularity**, (with **Mardan A. Pirdawood**), 3rd International Conference on Recent Trends in Multi-Disciplinary Research (ICRTMDR-20), 26th - 27th December 2020., (Maldives), online, <https://icrtmdr.com/>, <https://www.youtube.com/watch?v=jwX8BZA6Fvw&feature=youtu.be>
10. **Existence and Uniqueness Theorems for Infinitesimal Micromonad of an Initial Standard Point and Legendre Equation**, (with **Mardan A. Pirdawood**), *Special issue of International Conference on Pure and Applied Sciences (ICPAS 2018)*, pp114-119 Koya Univ., (Kurdistan region, Iraq), <http://conferences.koyauniversity.org/index.php/pas/2018/paper/view/66>, DOI: <http://dx.doi.org/10.14500/icpas2018>, DOI: <http://dx.doi.org/10.14500/icpas2018.pma66>.
11. **Nonstandard Version of Intermediate Value Property**, (with **Sami A. Hussein**), Scientific Journal of Univ. of Zakho (SJUOZ), Vol 5(1), (2017) 142-146 (Kurdistan region, Iraq), <https://sjuoz.uoz.edu.krd/index.php/sjuoz/article/view/478> , DOI: <https://doi.org/10.25271/2017.5.1.356>
12. **On Some Nonstandard Development of Intermediate Value Property**, Assiut Univ. J. of Mathematics and Computer Science, Vol 45(2), (2016) 35-45 (Egypt) https://aunj.journals.ekb.eg/article_221419.html, DOI: <10.21608/AUNJ.2016.221419>

13. **sp-theta-Topological Group in Nonstandard Analysis**, (with Tahir H. Ismail & Sami A. Hussein), Assiut Univ. J. of Mathematics and Computer Science, Vol 45(2), (2016) 11-22 (Egypt), https://aunj.journals.ekb.eg/article_221410.html, DOI: [10.21608/AUNJ.2016.221410](https://doi.org/10.21608/AUNJ.2016.221410)
14. **On Some New Type of Functions in Nonstandard**, (with Sebar H. Jumha), Scientific Journal of University of Zakho (SJUZ) Vol 4(A), No 2 (2016) 253-257 <https://sjuoz.uoz.edu.krd/index.php/sjuoz/article/view/358>
15. **Nonstandard Asymptotic Treatments for Some Critical Engineering Parameters Depending on Bessel Functions**, (with Bakhtiar R. Abdul-Rahman), ANDAMIOS, Vol 13, No 2 (2016), (Mexico) UNIV AUTONOMA CIUDAD MEXICO.
16. **Some Nonstandard Type of the Remainder of Bessel Function**, (With Bakhtiar R. Abdul-Rahman), ZANCO Journal of Pure and Applied Sciences (ZJPAS), 28 (4); (2016)142-155
17. **On Nonstandard Type of Integral Representation of Bessel Function**, (with Bakhtiar R. Abdul-Rahman), International Journal of Enhanced Research in Science Technology & Engineering, Vol. 3 Issue 4, (2014) ,347-355 (India) <https://www.erpublications.com/our-journals-dtl-pdf.php?pid=1&id=82&pagesize=10&start=40&pagesize=10>
18. **On A New Type of Monads in Topology** , (with Tahir H. Ismail & Sami A. Hussein), Journal of Theoretical Mathematics and Applications (JTMA), Vol.2, No.3 (2012),139-150. (New Zealand) https://www.scienpress.com/journal_focus.asp?main_id=60&Sub_id=IV&Issue=450
19. **$P\theta$ -Topological Groups in Nonstandard Analysis**, (with Tahir H. Ismail & Sami A. Hussein), Raf. J. of Comp. & Math's, Vol.9, No.1 (2012), 191-199 https://csmj.mosuljournals.com/article_163683_en.html, DOI: [10.33899/CSMJ.2012.163683](https://doi.org/10.33899/CSMJ.2012.163683)
20. **$\beta\theta$ - Monads in General Topology**, (with Tahir H. Ismail & Sami A. Hussein), Int. J. of Contemporary Mathematical Science, Vol.7, No.5 (2012). (Bulgaria), 241-249 <http://www.m-hikari.com/ijcms/ijcms-2012/5-8-2012/index.html>
21. **A Generalized Curvature of The Generalized Envelopes**, (with Tahir H. Ismail), Raf. J. of Comp. & Math's, Vol.6, No.2 (2009), 39-47. https://csmj.mosuljournals.com/article_163795.html, DOI: [10.33899/csmj.2009.163795](https://doi.org/10.33899/csmj.2009.163795)
22. **Nonstandard Approximation Factor of the Taylor Series of Two variables**, accepted for presentation in a 2ndInt. Mathematics Conference of Alebo Univ. Syria, 2008.
23. **A Nonstandard Asymptotic Approx. of Bessel Fun.** Special issue of 2ndInt. Mathematics Conference of Zarqa Private Univ. Jordan, 2008. <https://iacmc.zu.edu.jo/index.php/about-iacmc/iacmc-series>
24. **Continuity as a Galaxy of Hyperreal Functions**, Raf. J. of Comp. & Math's, Vol.5, No.2 (2008), 85-93. https://csmj.mosuljournals.com/article_163974.html, DOI: [10.33899/CSMJ.2008.163974](https://doi.org/10.33899/CSMJ.2008.163974)
25. **A Nonstandard Generalization of Envelops**, (with Tahir H. Ismail), Raf. J. of Comp. & Math's, Vol.5, No.2 (2008), 73-83. https://csmj.mosuljournals.com/article_163973.html, DOI: [10.33899/CSMJ.2008.163973](https://doi.org/10.33899/CSMJ.2008.163973)
26. **Nonstandard Treatment of Two Dimensional Taylor Series with Reminder Formulas**, Raf. J. of Comp. & Math's, Vol.5, No.1 (2008), 165-175. https://csmj.mosuljournals.com/article_163957.html, DOI: [10.33899/CSMJ.2008.163957](https://doi.org/10.33899/CSMJ.2008.163957)
27. **Reformulation of the Generalized Curvature by Using Decomposition Technique** (with Tahir H. Ismail), J. of Edu. Sci., Vol.21, No.1 (2008), 45-60. https://edusj.mosuljournals.com/article_51295.html, DOI: [10.33899/EDUSJ.2008.51295](https://doi.org/10.33899/EDUSJ.2008.51295)
28. **Three Near Points Method for Calculating Generalized Curvature and Torsion** (with Tahir H. Ismail), J. Edu. Sci., Vol.19, No.4 (2007), 122-131. https://edusj.mosuljournals.com/article_74136.html, DOI: [10.33899/EDUSJ.2007.74136](https://doi.org/10.33899/EDUSJ.2007.74136)

29. **On The Generalized Curvature** (with Tahir H. Ismail), *Raf. J. of Comp. & Math's*, Vol.3, No.2 (2006), 83-98. https://csmj.mosuljournals.com/article_164054.html, DOI: [10.33899/CSMJ.2006.164054](https://doi.org/10.33899/CSMJ.2006.164054)
30. **On The Generalized Torsion** (with Tahir H. Ismail), *J. Dohuk Univ.*, Vol.9, No.2 (2006), 116-122.
31. **The Curvature of Envelope of a Family of Straight Lines in a Plane** (with Tahir H. Ismail) *International Congress "NS Methods and Appl. in Mathematics- NSM" 25-31/5/ 2006, Pisa,Italy* <https://people.dm.unipi.it/nsm2006/>, <https://people.dm.unipi.it/nsm2006/abstracts.html>
32. **Some Nonstandard Results of Continuous, Monotonic Fun.**, *J. Edu. Sci.*, Vol.17, No.2 (2005), 80-86. https://edusj.mosuljournals.com/article_81311.html , DOI: [10.33899/EDUSJ.2005.81311](https://doi.org/10.33899/EDUSJ.2005.81311)
33. **On Some Nonstandard Asymptotic Approximation of Integrals and Series** (with Tahir H. Ismail & Rashad R. Haji), *Raf. J. of Comp. & Math's*, Vol.2, No.2 (2005), 33-40. https://csmj.mosuljournals.com/article_164081.html, DOI: [10.33899/CSMJ.2005.164081](https://doi.org/10.33899/CSMJ.2005.164081)
34. **The Problem of Optimal Accuracy** (with Rashad R. Haji), *Zanco Jour. of Pure and Applied Science Salahaddin Univ.*, Vol.16, No.5 (2004), 65-69.
35. **A new Type of Infinitesimal in Nonstandard Analysis**, *Zanco Jour. of Pure and Applied Science Salahaddin Univ.*, Vol.16, No.1 (2004), 67-71.
36. **A Nonstandard Approximation Using Taylor Polynomials** (with Tahir H. Ismail), *Raf. J. of Comp. & Math's*, Vol.12, No.21 (2001), 86-93.

Books

- **Generalized Curvature and Torsion in Nonstandard Analysis**, (*Nonstandard Technical Treatment for Some Differential Geometry Concepts*), **LAP Lambert Academic Publishing (Germany) ISBN 978-3-8443-0763-4, 140 Pages.** (Co-author with Prof. Dr. Tahir H. Ismail), 2011 <https://www.lap-publishing.com/catalog/details/store/gb/book/978-3-8443-0763-4/generalized-curvature-and-torsion-in-nonstandard-analysis>
- **A Characterization of Continuity of $\beta\theta$ and $P\theta$ -Monads in Topology.** **Verlag/ Publisher: Scholar's Press (India)ISBN: 978-3-639-86258-4** (Co-author with Prof. Dr. Tahir H. Ismail & Sami A. Hussein), 2015 <https://my.scholars-press.com/catalog/details/store/gb/book/978-3-639-86258-4/a-characterization-of-continuity-of-%CE%B2%CE%B8-and-p%CE%B8-monads-in-topolog>

Articles

- **The Development Project of the Educational Program in Iraq (In Arabic)**, *Journal of Afaq Al- Terbewiyha*, Issued by the Ministry of Education – Iraqi Kurdistan Region, No.3(2004), pp 107-114.
- **Some Notes, About The Integration Subject in the Mathematics Book of 6th Secondary School (In Kurdish)** *Journal of Assoy Parwardayi*, Issued by the Ministry of Education – Iraqi Kurdistan Region, No.38(2003), pp 58-63.

Courses Taught

1- 1993-1998, as an Assistant Researcher:

- (Theoretical): *O.D.E, probability, & Statistics, Euclidean and Non-Euclidean Geometry.*
- (Tutorial): *Euclidean and Non Euclidean Geometry y, Statistics, O.D.E, P.D.E, Topology.*

- (Computer Laboratory): *Basic Language, Fortran Language, Pascal Language*

2- 2000-2004, as an Assistant Lecturer: (Theoretical)

- *Mathematical Analysis, Finite Mathematics, O.D.E, probability, & Statistics, Euclidean and Non Euclidean Geometry, Pascal Language, Computer Science, Supervising of several fourth year students Graduation Projects, Axiomatic Systems*

3 – 2005 - Present, as Lecturer and Assistant Professor: (Theoretical)

- (Undergraduate): *Math. Analysis, Calculus, Advanced Calculus, Axiomatic Systems, Operation Research, Operating Systems, System Analysis, Fundamental of mathematics., Basic Mathematics for Computer Sci, Axiomatic Systems, Modern Geometry*
- (Graduate): *Adv. Mathematical Analysis, Adv. Mathematical Analysis-Theory of Integration, Adv. Mathematical Analysis- Advanced topics in Metric Spaces, Nonstandard Analysis and Asymptotic Approximations, Asymptotic Analysis, Nonstandard Analysis, Measure Theory*

Software Skills

WinWord (V. good), Excel (V. good), Mathcad(little), Maple (good), LaTeX(V.good), VB Office (V.good)