CV

Personal data:

Name and surname: Mohammad Alcheikh

Father's name: Moustafa

Mother's name: Karima AlTarsha

Date of birth: AlRahiba 1965

Marital status: Married

Number of children: 5

Nationality: Syrian Arab

Current academic rank: Associate Professor

Address:

- ❖ University:

• Syria - Damascus University - Faculty of Science - Department of Mathematics.

• Syria - Yarmouk Private University - Faculty of Information and Communications Engineering.

- ❖ Home:

Syria - Damascus - AlRahiba - Northern District - Near Al-Basatin School.

Home phone: (+96311) 7735237

Mobile: +963991565859

Email: **mohammad.alcheikh@damascusuniversity.edu.sy**

Qualifications:

- ❖ Bachelor of Mathematics from Damascus University-Syria 1987.

- ❖ Postgraduate Diploma in Mathematics from Damascus University-Syria 1988.
- ❖ In-depth Diploma in Mathematics from Lyon University (1)-France 1991.
- ❖ PhD in Mathematics, specializing in Differential Geometry from the University of SavoI -France 1995.

Experiences:

• Teaching Assistant at Damascus University from August 1988 until 3/10/1995.

• Returning Doctor from Delegation from 4/10/1995 until 29/6/1996.

• Lecturer at the Faculty of Science - Damascus University from 30/6/1996 until 7/11/2005.

• Assistant Professor at the Faculty of Science - Damascus University from 8/11/2005 until now.

• Part-time lecturer at Kalamoon Private University since its opening until 31/12/2005.

• Full-time faculty member at Kalamoon Private University from 2/1/2006 until 30/8/2006.

• Part-time faculty member at Kalamoon Private University from 1/9/2006 until 1/9/2010.

• Full-time faculty member at Yarmouk Private University from 15/9/2010 until 15/9/2014.

• Part-time faculty member at Yarmouk Private University from 15/9/2014 until 30/9/2023.

• Full-time faculty member at Yarmouk Private University from 1/10/2023 until now.

• Supervising master's and doctoral thesis throughout the previous periods.

• Head of the Department of Mathematics at the Faculty of Science at Damascus University from the beginning of the academic year 2022-2023 until 20/9/2023.

Foreign languages: English and French.

Subjects I taught:

First, Damascus University:

- Differential topology for first year Ms students in mathematics (mathematical analysis).
- Differential geometry course for fourth year mathematics students (for all sections).
- French language courses for third- and fourth-year mathematics students.
- Complex analysis courses (1) and (2) for third year mathematics students.
- Complex analysis course for third year statistics students.
- Differential equations course (1) for second year mathematics students.
- Mathematics course for physics and chemistry for second year physics and chemistry students.
- Mathematics courses (1) and (2) for second year chemistry students.
- Complex analysis course for second year students in the Faculty of Information Engineering.
- Analysis courses (1) and (2) for first year students in the Faculty of Information Engineering.
- Mathematics for students of the Department of Health Sciences.

Secondly, Kalamoon Private University:

- Mathematics courses (1), (2) and (4) for students of the Faculties of Engineering and Applied Sciences.
- Statistics and Probability course for students of the Faculties of Engineering and Applied Sciences.
- Restorative Mathematics for students of the Faculties of Engineering and Applied Sciences.
- Restorative Mathematics for students of the Faculties of Management and Business.
- Mathematics for Pharmacy.
- Mathematics (1) Architecture.
- Nutrition Mathematics.

Thirdly, Yarmouk Private University:

- Mathematics courses (1), (2), (3), (4) and (5)

- Reinforcement Mathematics for students of the Faculty of Information and Communications Engineering.
- Mathematics courses (2) and (3) for students of Civil Engineering.

Publications:

• Differential geometry book for fourth year mathematics students (in collaboration with Associate Professor Dr. Samir Abu Aql) for the academic year 2005-2006.

• Participation in writing mathematics books for the third year of secondary school science for the academic year 2007-2008.

• Participation in writing the teacher's guide book and activity book for first year secondary school students at the National Center for Excellence for the academic year 2010-2011.

Postgraduate theses completed under my supervision:

• Master's thesis in mathematics entitled "Study of t metric manifolds" prepared by student Reem Abu Ras from Damascus University. She defended it in 2008.

• Master's thesis in mathematics entitled "Deep study in the theory of elliptic functions" prepared by student Mohammad Alkousa from Damascus University. Defended in 2010.

• Master's thesis in mathematics entitled "A study on product spaces and Fobini's theorem and its applications" prepared by student Farah Talal Balhawan from Damascus University. Defended in 2011.

• Master's thesis in mathematics entitled "A study in the formulation of gravity and norm theories by means of differential geometry" prepared by student Amani Ashour from Damascus University. Defended in 2012.

• Master's thesis in mathematics entitled "A study of the stability of Cauchy's functional equation" prepared by student Hamza Akram Agha from Damascus University. Defended in 2014.

• Master's thesis in mathematics entitled "A study on differential equations in the complex Domain" prepared by student Mohammad Marwan Dala from Damascus University. Defended in 2015.

• Master's thesis in mathematics entitled "Study of Stokes' theorem on (non-smooth, non-directed) Manifolds and its applications" prepared by student Zain Al-Din Abdul Qader Al-Kilani from Damascus University. Defended in 2018.

• PhD thesis in mathematics "mathematical analysis specialization" entitled "A study on general relativity and other approaches in differential geometry of gravity" prepared by student Amani Ashour from Damascus University. Defended in 2018.

• PhD thesis in mathematics "mathematical analysis specialization" entitled "An analytical study of the properties of the Dirkhale series and some functions defined by it" prepared by student Alaa Abu Al-Ainain from Damascus University. Defended in 2018.

• Master's thesis in mathematics "mathematical analysis" entitled "A study on the applications of angle preservation and some of its physical and engineering applications" prepared by student Sara Hussam Al-Din Sabouni. Defended in 2019.

• Master's thesis in mathematics "Mathematical Analysis" entitled "A Study on Geodesics in Sub-Riemannian Geometry" prepared by student Khadra Jumaa from Damascus University. Defended in 2021.

• Master's thesis in mathematics "Mathematical Analysis" entitled "A Study on Self-Contracted Curves" prepared by student Asmaa Mohammad Abdo from Damascus University. Defended in January 2021.

• Master's thesis in mathematics "Mathematical Analysis" entitled "A Study on the Regularity of Geodesics in Geometry" prepared by student Souad Kassar from Damascus University. Defended in 2022.

Published research:

1. **M. Alcheik**, P. Orro - F. Pelletier, *'Singularités de l'application extrémité pour les chemins horizontaux'*, Singularités et géométrie sous-riemannienne, Travaux en Cours, 62, Hermann (2000), 11-39

2. **M. Alcheik**, P. Orro - F. Pelletier, *'Characterizations of Hamiltonian geodesics in subRiemannian geometry'*, J. of Dyn. and Cont. Syst., 3 (1997), 391-418.

3. **Alcheikh Mohammed**, Hakimi Hamza, 2005, "Pierre's generalized rings". Damascus University Journal, Volume 21, Issue 1.

4. **Alcheikh Mohammed**, Abu Aql Samir, Reem Abu Ras, 2008 "Two rows of semi-symmetric three-dimensional contact metric manifolds of the Ricci type", Damascus University Journal, Volume 24, Issue 2.

5. **Alcheikh Mohammed**, Alkousa Mohammad, 2010, "A simplified proof of the inverse problem in the theory of elliptic functions". Damascus University Journal, Volume 26, Issue 1.

6. **Alcheikh Mohammed**, Shamoon Nidal, Amani Ashour, 2103, "On the continuous deformation and its effect with applications in electromagnetism and magnetic monopoles". Aleppo University Research Journal - Basic Sciences Series No. 87.

7. Waggas Galib Atshan, Laila Ali Alzopee and **Mohammad Mostafa Alcheikh**, " On Fractional Calculus Operators of a Class of Meromorphic Multivalent Functions" Gen. Math. Notes, Vol.18, No.2, October, 2013, pp.92-103.

8. **Alcheikh Mohammad**, Shamoon Nidal, Amani Ashour, 2017, " The geodesic structure of the charged black hole in the rainbow gravity" Al-Baath University Journal - Volume 39, 2017.

9. Mir Faizal, Amani Ashour, **Mohammad Alcheikh**, Lina Alasfar, Salwa Alsaleh, Ahmed Mahroussah, "Quantum fluctuations from thermal fluctuations in Jacobson formalism", Eur.Phys.J. C77 (2017) no.9, 608, Oct 3, 2017 - 6 pages.

10. **Alcheikh Mohammed**, Asmaa Abdo, 2019, "Self-contracted curves in discrete metric space", Al-Baath University Journal - Volume 41, 2019.

11 **Alcheikh Mohammed**, Sara Sabouni, 2020, "On a new angle-preserving application from the lower half of the plane to the unit disk", Al-Baath University Journal - Volume 42, 2020.

12. Alkousa M., Stonyakin F., A Gasnikov A., Abdo A., **Alcheikh M.**, Higher degree inexact model for optimization problems. 2024, Vol. 88, no. 5, pp. 469-490.

13. Alkousa M., Stonyakin F., Abdo A., **Alcheikh M.**, Mirror Descent Methods with Weighting Scheme for Outputs for Optimization Problems with Functional Constraints. Russian Journal of Nonlinear Dynamics. 2024, Vol. 20, no. 5, pp. 727-745

14. Alkousa M., Stonyakin F., Abdo A., **Alcheikh M.**, Optimal Convergence Rate for Mirror Descent Methods with special Time-Varying Step Sizes Rules. Accepted in Proc. of the Internat. Conf. "MOTOR 2024", (Russia, June 30–July 06, 2024).

Damascus 12 /3/2025

Asst. Prof. Dr. Mohammad Alcheikh