Curriculum Vitae

Dr. Iryna Komashynska

Address: Amman- Jordan
E-mail: Iryna_kom@hotmail.com
E-mail: I.kom@ju.edu.jo
Tel: (962)(799)(493864)

Personal Information:

Name :   Iryna Volodymyrivna Komashynska

Date of Birth: 20 Nov, 1964

Place of Birth: Poltava- Ukraine

Nationality: Jordanian

Marital status: Married

Permanent Address: Amman – Jordan

Current Work Address: Department of Mathematics, Faculty of Science,
               The University of Jordan, Amman 11942, Jordan.

Education & Qualifications:

- ***Ph.D Degree in Math,*** Ukraine Institute of Mathematics, National Academy of Sciences, Kiev- Ukraine, 1997.

    ### *Specialization:*
    1- Ordinary Differential Equations.   2- Difference Equations.

    3- Partial Differential Equations.   4- Stochastic Differential Equations.

- ***M.Sc. and B. Sc. in Mathematics***, Kalinin State University, Kalinin, Russia 1982-1987, (Diploma with honor).

- ***General Secondary Education***, Poltava- Ukraine, 1982 (with merit "excellent" and awarded the Gold medal).

Professional Experience:

- *Professor*, Department of Mathematics, Faculty of Science, the University of Jordan. Amman –Jordan, from 27/10/2014.

- *Associate Professor*, Department of Mathematics, Faculty of Science, the University of Jordan. Amman –Jordan, from 05/09/2010 to 26/10/2014.

- *Associate professor (Sabbatical Leave)*, Department of Mathematics, Faculty of Science, the University of Jordan, Amman - Jordan, from 09/2009 to 09/2010.

- *Associate Professor*, Department of Mathematics, Faculty of Science, Al - Hussein Bin Talal University, Ma'an-Jordan, from 19/03/2008 to 06/09/2009.

- *Assistant Professor*, Department of Mathematics, Faculty of Science, Al-Hussein Bin Talal University, Ma'an-Jordan, from 16 /02/2003 to 18/03/2008.

- *Part time Lecturer*, Department of Mathematics, Faculty of Science, Al-Hussein Bin Talal University, Ma'an-Jordan, from 07/10/2001 to 01 /02/2003.

- *Assistant Professor,* Poltava City State Teachers Training Institute, Poltava, Ukraine, from 1997 to 1998.

- *Instructor at the Department of Mathematics,* Poltava City State Teachers Training Institute, Poltava, Ukraine, from 1989 to 1993.

Teaching courses

1- Calculus (1).

2- Calculus (2).

3- Calculus (3).

4- Advanced Calculus.

5- Ordinary Differential Equations (1).

6- Ordinary Differential Equations (2).

7- Partial Differential Equations .

8- Principles of Applied Mathematics .

9- Engineering Mathematics (1).

10- Engineering Mathematics (2).

11- Operations Research (1).

12- Linear Algebra (1).

13- Complex Analysis(1).

14- Numerical Analysis(1).

15- Numerical Analysis(2).

16- Real Analysis (1).

17-Advanced Methods of Applied Math (for Ph.D).

18- Applied Mathematics (1) (for M.Sc).

Languages

1- Arabic   2- English   3- Russian (Native)   4- Ukrainian (Native)

Computer Skills

International Computer Driving License (ICDL) (In English).

Publications:

1. I.V. Komashynska, "*The Investigation of Solution of Quasiwave Differential Equation of Hyperbolic Type with Nonlinear Friction*". Nonlinear Boundary- Value Problems of Mathematical Physics and their Applications, Collection of Scientific Works. Kiev Institute of Mathematics of NAS of Ukraine. PP.119-121, 1995.

2. I.V. Komashynska, "*Asymptotic Solutions of Quasiwave Differential Hyperbolic Equations with Nonlinear Friction*", Boundary-Value Problems. Collections of Scientific Works. Kiev: Institute of Mathematical of NAS of Ukraine,Vol.11, PP.105-111, 1996.

3. I.V. Komashynska, "*The Construction of Asymptotic of a Solution of the Quasiwave Differential Equation for Nonlinear Boundary Value Problem Non- Autonomous Type,* Report of NAS of Ukraine, No.9. PP.14-18, 1996.

4. V.G. Kolomiets and I.V. Komashynska, "*About the Problem of Existence and Uniqueness of the Solution of Mixed Problem of Quasiwave Equations*". Nonlinear Boundary-Value Problems of Mathematical Physics and their Application, Collection of Scientific works. Kiev: Institute Mathematics of NAS of Ukraine. PP.142-143, 1996.

5. V.G. Kolomiets and I.V. Komashynska, "*On the Existence of Solution of Quasilinear Mixed Problem for Quasiwave Equation*".Ukrainian Mathematical Journal. Vol.49(9), PP.1182-1185, 1997.

6. A.M. Ateiwi and I.V. Komashynska, "*On Preservation of an Invariant Set of Discrete System Under Small Perturbations*". Journal of Institute of Mathematics & Computer Sciences. (Mathematics Series). Vol.15(2), PP.85-90, 2002.

7. I.V. Komashynska and A.M. Ateiwi, "*On Preservation of Stability Under Transition from Difference to Differential Equations*". International Journal of Applied Mathematics.Vol.15 (2), PP.129-135, 2004.

8. I.V. Komashynska, "*On Abstract Initial- Value Problem for Linear Equations with Argument Deviation and Unbounded Infinitesimal Operator*", Journal of Fractional Calculus. Vol.26, November. PP.109-115, 2004.

9. I.V. Komashynska and A.M. Ateiwi, "*About Oscillatory Behavior of Solutions when Passing from Difference to Differential Equation*", Demonstratio Mathematica. Vol.38(4), PP.867-874, 2005.

10. I.V. Komashynska and A.M. Ateiwi. "*On Asymptotic Equivalence of Systems of Difference Equations*". First Conference on Mathematical Sciences. Zarqa Private University. (April 18-20). PP.213-216, ISSN:1818- 8532, 2006 .

11. A.M. Ateiwi , S.A. Al-Obaidy and I.V. Komashynska, "*Discrimination and Classification Levels of Students as Per their Major Specialization*". Journal of Applied Sciences. Vol.6 (8), PP.1845-1853, 2006.

12. A.M. Ateiwi and I.V. Komashynska, "*The Existence and Unbounded Extension of the Solutions of the Systems with Stochastic Impulse Action*". Journal of Mathematics and Statistics. Vol.2(4), PP.460- 463, 2006.

13. I.V. Komashynska and A.M. Ateiwi, "**On the Limit Behavior of Degenerate Parabolic Equations**", The Southeast Asian Bulletin of Mathematics**.** Vol.33(4), PP.751-755, 2009**.**

14. I.V. Komashynska and A.M. Ateiwi, "*Optimal Control of Nonlinear Systems with Quadratic Quality Criterium*". International Journal of Applied Mathematics. Vol.23(4), PP.693-702, 2010.

15. A.M. Ateiwi and I.V. Komashynska**, "***Asymptotic Equivalence of Exponentially Dichotomic Systems*"**. Global Journal of Pure and Applied Mathematics. Vol.8(2), PP.241-251, 2012.

16. I.V. Komashynska**,** " *Invariant Sets for the Systems of Difference Equations*". Journal of Applied Functional Analysis. Vol.7(4), PP.315-320, 2012.

17. I.V. Komashynska, "*Averaging in Optimal Control Problem for Systems of Difference Equations*".Boletim da Sociedade Paranaense de Matemática. Segunda Série. Vol.31(2), PP.175-182, 2013.

18. I.V. Komashynska, "*Existence and Uniqueness of Solutions for a Class of Nonlinear Stochastic Differential Equations*", Abstract and Applied Analysis. Vol. 2013, Article ID256809, 7 pages, 2013.

19. I.V. Komashynska and A.M. Ateiwi, "*Asymptotic Equivalence of Systems of Difference Equations with Unbounded Solutions*"**.** Journal of Computational Analysis and Applications. Vol.17(1), PP.31-39, 2014.

20. I.V. Komashynska and M. Al-Smadi, "*Iterative Reproducing Kernel Method for Solving Second –Order Integrodifferential Equations of Fredholm Type*". Journal of Applied Mathematics, Vol. 2014, Article ID459509, 11 pages, 2014.

21. I.V. Komashynska**,** M. Al-Smadi, A. Al-Habahbeh and A.M Ateiwi, "*Analytical Approximate Solutions of Systems of Multi- pantograph Delay Differential Equations Using Residual Power-series Method*"**.** Australian Journal of Basic and Applied Sciences, Vol. 8(10) July, PP. 664-675, 2014.

22. I.V. Komashynska, M. Al-Smadi, O. Abu Argub and S. Momani, "*An Efficient Analytical Method for Solving Singular Initial Value Problems of Nonlinear Systems*". Applied Mathematics & Information Sciences**.** Vol. 10 (2), PP. 647-656, 2016.

23. I.V. Komashynska, M. Al-Smadi and A.M. Ateiwi and A. Al e'damat, "*An oscillation of the solution for a nonlinear second-order stochastic differential equation*". Journal of computational analysis and applications. Vol. 20(5), PP. 860-868, 2016.

24. I.V. Komashynska, M. Al-Smadi, A.M. Ateiwi and S. A. Al-Obaidy, "*Aproximate Analytic Solutions by the Residual Power Series Method of the System of Fredholm Integral Equations*", Applied Mathematics & Information Sciences**.** Vol. 10 (3), PP. 1- 11, 2016

25. Al e'damat, M. Al-Smadi, I. Komashynska, A. M. Ateiwi and A. Alrawajfi, "*Analytical-Numerical Solutions for First-Order Periodic Boundary Value Problems Using the Reproducing Kernel Algorithm*". Differential and Difference Equations with Applications. Springer. Proceedings in Mathematics & Statistics 164, DOI 10.1007/978-3-319-32857-7_2, PP. 9 – 23, 2016.

26. Z. Altawallbeh M. Al-Smadi, I. Komashynska and **A . Ateiwi, " Numerical Solutions of Fractional System, Two- point BVPS using Iterative Reproducig Kernel Algorithm".** Ukrainian Mathematical Journal. Vol.70(5), PP.678-701 **,** 2018.

27. A. Ateiwi, A. Al e'damat, A. Freihat and **I .Komashynska** , "Approximation Scheme for Handling Coupled Systems of Differential Equations within Reproducing Kernel Method". Filomat Journal. Vol.33, No 2, PP 599-615. 2019.

28. I. Komashynska, "Numerical modeling of coupled partial differential   equations using residual error functions". IJAM, Vol.33, No 4, PP. 649-662.2020.

29. F. Bekhouche, I. Komashynska, " Traveling wave solutions for the space-time fractional (2+1)-dimensional Calogero-Bogoyavlenskii-Schiff equation via two different methods", International Journal of Mathematics and Computer Science. Vol.16, No 4, PP 1729–1744, 2021

30. . F. Bekhouche , M. Alquran , I. Komashynska, " Explicit rational solutions for   time-space fractional nonlinear equation describing the propagation of bidirectional waves in low-pass electrical lines", Romanian Journal of Physics. Vol. 66,No 7-8, Article no 114 , 2021

Conferences:

1. I.V. Komashynska, "***The Investigation of Oscillating Processes***". Ukrainian Conference. Modeling and Stability of Systems. Institute of Mathematics of NAS of Ukraine, (May 15 – 19), P.66. (Kiev – Ukraine), 1995.

2. I.V. Komashynska, "***The Investigations of Non - Stationary Oscillations of Quasiwave Equation***", International Scientific Conference. (May 16 – 18). P.197. (Kiev – Ukraine), 1996.

3. I.V. Komashynska, "***About Asymptotic Solutions of Quasiwave Equations with Nonlinear Non - Autonomous Boundary Conditions***". Ukrainian Conference. Modeling and Stability of Systems. (May 20 – 24). P.70. (Kiev – Ukraine), 1996.

4. A.M. Ateiwi and I.V. Komashynska, "***Investigation the Solution of Difference Equations when Passing to Differential Equations***". The First Arab Conference in Mathematics. Mathematics Department, Faculty of Basic Sciences, Applied Sciences Private University, (October 6-8). PP. 55-56. (Amman – Jordan), 2004.

5. I.V. Komashynska and A.M. Ateiwi, "***On Asymptotic Equivalence of Systems of Difference Equations ″***. First Conference on Mathematical Sciences. Zarqa Private University. (April 18 – 20).PP. 213-216, ISSN: 1818-8532. (Zarqa – Jordan), 2006.

6. A.M. Ateiwi and I.V. Komashynska, "***On Properties of Systems of Linear Difference Equations ″***. Fifteenth International Conference of Forum for Interdisciplinary Mathematics, (Interdisciplinary Mathematical & Statistical Techniques).(May 20 – 23), P.26. (Shanghai – China), 2007.

7. I.V. Komashynska, "***On Solution of Some Abstract Initial - Value Problem***". Petra International Conference on Mathematics, Department of Mathematics and Statistics,Faculty of Science, Al-Hussein Bin Talal University. (October 24-25). P.17. (Ma'an – Jordan), 2007.

8. I.V. Komashynska, "***Lyapunov's Functions and Invariant Sets for Systems of Difference Equations***". The 6-th International Conference. Dynamical Systems and Applications. (July 10-14) .P.36. (Antalya –Turkey), 2010.

9. I.V. Komashynska, "***Application of the Averaging Method of the Optimal Control Problem for Difference Equations***". The Fourth International Conference on Mathematical Sciences.

(March 11-14). (Department of Mathematical Sciences, Al Ain, United Arab Emirates University), 2012.

10. I.V. Komashynska, "*Asymptotic Behavior of Solutions of Second Order Stochastic Equations*". ICAAMMP 2014 International Conference on Advances in Applied Mathematics and Mathematical Physics 19 – 21 Aug, Istanbul, Turkey, 2014.