

Ezgi Nevruz, Ph.D. — Curriculum Vitae

Department of Actuarial Sciences, Faculty of Science, Hacettepe University, 06800 Çankaya/Ankara/Türkiye

✉ ezginevruz@hacettepe.edu.tr • ✉ ezginevruz@gmail.com

🌐 <https://orcid.org/0000-0002-1756-790> • 🌐 <https://avesis.hacettepe.edu.tr/ezginevruz>

1. Professional Profile and Background

1.1 Research Interests

- Prioritization of Actuarial Risks, Stochastic Ordering Relations
- Decision Making under Uncertainty, Risk Perception
- Sustainability and Environmental Risks, Agricultural Insurance, Geographic Information Systems
- Loss Reserving, Simulation
- Compensation for Loss of Income and Earnings

1.2 Work Experience

Research Assistant

Department of Actuarial Sciences, Faculty of Science, Hacettepe University

January 2011-Present

Summer Internship

Yapı Kredi Insurance Company, Department of Research-Development

July-August 2008

1.3 Licences

Registered Actuary (Registration number: 139)

Successful in 13 actuarial exams consisting of three levels

Ministry of Treasury and Finance of Türkiye

December 2017-Present

1.4 Responsibilities

Member of the Sustainability and Climate-Related Risks (SCrR) Working Group

Actuarial Association of Europe (AAE)

May 2021-Present

Member of the European Actuaries Climate Index (EurACI) Working Group

Actuarial Association of Europe (AAE)

March 2019-April 2021

Delegate of the Turkish Subcommittee of ASTIN

Non-life Insurance Section of International Actuarial Association (IAA)

2018-Present

Expert Witness

Compensation for Loss of Income and Earnings

January 2018-Present

Member of Criterion Commission

Association for Evaluation and Accreditation of Programs in Faculties of Science, Arts, Arts and Science, Letter and History-Geography (FEDEK)

March 2019-Present

Associate Coordinator of Minor Program

Department of Actuarial Sciences

2015-Present

Academic Advisor of Undergraduate Students

Department of Actuarial Sciences

2011-Present

Academic Advisor of Motorcycle Student Society

Department of Health, Culture and Sports, Hacettepe University

December 2023-Present

Member of the Executive Committee

2nd National Insurance and Actuarial Congress

September 2015

Open Days

Department of Actuarial Sciences

July 2019, August 2018, July 2017, July 2015

1.5 Education

PhD in Actuarial Sciences

Graduate School of Science and Engineering, Hacettepe University, Türkiye

2012–2018

PhD Thesis: *Multivariate Stochastic Prioritization of Dependent Actuarial Risks under Uncertainty* [↗](#)

Supervisor: Assoc. Dr. Kasırga Yıldırak, Co-advisor: Prof. Dr. Ashis SenGupta

MSc in Actuarial Sciences

Graduate School of Science and Engineering, Hacettepe University, Türkiye

2009–2012

MSc Thesis: *Comparison of the Performance of Some Loss Reserving Methods with Simulation (in Turkish)* [↗](#)

Supervisor: Assist. Dr. Yasemin Gençtürk

BSc in Actuarial Sciences

Faculty of Science, Hacettepe University, Türkiye

2004–2009

Minor Degree in Economics

Faculty of Economics and Administrative Sciences, Hacettepe University, Türkiye

2006–2009

Antalya Hacı Malike Mehmet Bileydi Anatolian High School

1997–2004

2. Research Experience, Publications and Submitted Papers

2.1 Research Visits

Doctoral Research Fellow

Applied Statistics Unit, Indian Statistical Institute, India

February-May 2016

PhD Research: *Impacts of Risk Perception on Multicriteria Ranking and Prioritization of Risks*

Co-advisor: Prof. Dr. Ashis SenGupta

2.2 Peer-Reviewed Journal Publications

8: Şahin, Ş., Bulut-Karageyik, B., Nevruz, E. and Şimşek, G., 2023, On Stochastic Modelling of Actuarial Compensation for Loss of Future Earnings in Turkey, LAW, PROBABILITY AND RISK (SCI-Exp, SSCI), 22(1), pp. 1-35. [↗](#)

7: Nevruz, E., Atıcı, R. Y., Yıldırak, K., 2022, Actuaries Climate Index: An Application for Turkey, JOURNAL OF STATISTICAL RESEARCH (EBSCO, DergiPark), 12(2), pp.14-25. [↗](#)

6: Nevruz, E., Yıldırak, K., 2019, Spatiotemporal Interpolation Through an Extension of Differential Evolution Algorithm for Agricultural Insurance Claims, JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS (SCI), 352, pp. 278-292. [↗](#)

- 5: Nevruz, E., Şahin, Ş., 2018, A Comparison of the Extreme Value Theory and GARCH Models in terms of Risk Measures, ANALES DEL INSTITUTO DE ACTUARIOS ESPAÑOLES (ESCI, DIALNET), 24, pp. 149-170.↗
- 4: Nevruz, E., Gençtürk, Y., 2017, Comparing the Performance of Stochastic Loss Reserving Methods for Different Loss Severity Distributions, JOURNAL OF STATISTICIANS: STATISTICS AND ACTUARIAL SCIENCES (TUBITAK-ULAKBIM), 10(2), pp. 86-95.↗
- 3: Şahin, Ş., Karabey, U., Bulut Karageyik, B., Nevruz, E., Yıldırak, K., 2016, Actuarial Premium Calculation for Wheat Crop Insurance in Turkey (in Turkish), TURKISH JOURNAL AGRICULTURAL ECONOMICS (EBSCO, TUBITAK-ULAKBIM), 22(2), pp. 37-47.↗
- 2: Nevruz, E., Gençtürk, Y., 2014, Comparison of the Performance of Some Loss Reserving Methods with Simulation (in Turkish), ANADOLU UNIVERSITY JOURNAL OF SCIENCE AND TECHNOLOGY-A APPLIED SCIENCES AND ENGINEERING (EBSCO, DOAJ, TUBITAK-ULAKBIM), 15(1), pp. 15-31.↗
- 1: Arık Soyalp, A., Nevruz, E., Karabey, U., 2013, Measurement of Financial Risks of Some Emerging Markets by Using Extreme Value Theory (in Turkish), JOURNAL OF STATISTICIANS: STATISTICS AND ACTUARIAL SCIENCES (CIS, TUBITAK-ULAKBIM), 6(2), pp. 86-95.↗

2.3 Forthcoming Papers

- 2: Nevruz, E., Yıldırak, K., SenGupta, A., 2024, Revisiting Majorization Ordering for Actuarial Risks with Model-Based Clustering of Multivariate Dependent Aggregate Claims in Agricultural Insurance, to be submitted in March.
- 1: Nevruz, E., Yıldırak, K., SenGupta, A., 2024, Reframing Actuarial Risk Prioritization: Stop-loss Dominance under Cumulative Prospect Theory, to be submitted in April.

2.4 Books

- 2: Şahin, Ş., Bulut Karageyik, B., Nevruz, E., Şimşek, G., 2022, Actuarial Expert Witnessing: Compensation Calculations for Loss of Income Claims, Actuarial Theory - Financial Theory - Trial Practice (in Turkish), SEÇKIN PUBLISHING, 2nd Edition (Updated and Extended) (1st Edition, 2021), Ankara.
- 1: Şahin, Ş., Nevruz, E., Bulut Karageyik, B., Şimşek, G., 2022, Actuarial Expert Witnessing: Compensation Calculations for Wrongful Death Claims, Actuarial Theory - Financial Theory - Trial Practice (in Turkish), SEÇKIN PUBLISHING, 2nd Edition (Updated and Extended) (1st Edition, 2020), Ankara.

2.5 Book Chapters

- Şahin, Ş., Nevruz, E., Şimşek, G., 2021, Compensation for Wrongful Death Claims: Neither a Recovery for the Economic Loss nor the "Value of a Life" in *Danse Macabre: Death and Dying Practices (in Turkish)*, EGE PUBLISHING, Eds. Ali Metin Büyükkarakaya and Elif Başak Aksoy, İstanbul.

2.6 Conference Papers

- Nevruz, E., Yıldırak, K., SenGupta, A., 2017, Multivariate Stochastic Prioritization of Dependent Actuarial Risks in Agricultural Insurance, Presented to ASTIN AND AFIR/ERM COLLOQUIA, Panama City, Panama, 20-24 August 2017.↗

2.7 Conferences

- 13: Nevruz, E., 2022, Sustainability of Agricultural Income Insurance under Climate Change and Market Uncertainty, 25TH INTERNATIONAL CONGRESS ON INSURANCE: MATHEMATICS AND ECONOMICS, Online, 12-15 July 2022.
- 12: Nevruz, E., Yıldırak, K., SenGupta, A., 2019, A Comparison of Expected Utility Theory and Cumulative Prospect Theory under Stop-loss Dominance (in Turkish), USAK2019: 4TH NATIONAL INSURANCE AND ACTUARIAL SCIENCE CONGRESS, Ankara, Türkiye, 24-25 June 2019.

- 11:** Şahin, Ş., Nevruz, E., Menoukeu-Pamen, O., 2019, Stochastic Ordering of the Risks Affecting the Social Security Coverage in Africa, AFIR-ERM COLLOQUIUM 2019: INNOVATING ACTUARIAL RESEARCH ON FINANCIAL RISK AND ERM, Florence, Italy, 21-24 May 2019.
- 10:** Nevruz, E., Yıldırak, K., SenGupta, A., 2018, Cluster-based Multivariate Stochastic Prioritization of Dependent Actuarial Risks in Crop-hail Insurance, EAJ 2018: 4TH EUROPEAN ACTUARIAL JOURNAL CONFERENCE, Leuven, Belgium, 10-11 September 2018.
- 9:** Nevruz, E., Yıldırak, K., SenGupta, A., 2017, Multivariate Stochastic Prioritization of Dependent Actuarial Risks in Agricultural Insurance, ASTIN AND AFIR/ERM COLLOQUIA 2017, Panama City, Panama, 20-24 August 2017.
- 8:** Nevruz, E., Yıldırak, K., 2017, Risk Classification in Agricultural Insurance under Dependency Assumption, IRSYSC 2017: 3RD INTERNATIONAL RESEARCHERS, STATISTICIANS AND YOUNG STATISTICIANS CONGRESS, Konya, Türkiye, 24-26 May 2017.
- 7:** Nevruz, E., Yıldırak, K., 2017, Prioritization of Dependent Actuarial Risks: Stochastic Majorization, INNOVATIONS IN INSURANCE, RISK- AND ASSET MANAGEMENT CONFERENCE, Munich, Germany, 5-7 April 2017.
- 6:** Nevruz, E., Yıldırak, K., SenGupta, A., 2016, Stochastic Prioritization of Dependent Actuarial Risks: Preferences among Prospects, ICASQF 2016: 18TH INTERNATIONAL CONFERENCE ON ACTUARIAL SCIENCE AND QUANTITATIVE FINANCE, Amsterdam, The Netherlands, 1-2 December 2016.
- 5:** Nevruz, E., Şahin, Ş., 2014, A Comparison of the GARCH Models and Extreme Value Theory in terms of Risk Measures for Emerging Markets, IME 2014: 18TH INTERNATIONAL CONGRESS ON INSURANCE: MATHEMATICS AND ECONOMICS, Shanghai, China, 10-12 July 2014.
- 4:** Nevruz, E., Gençtürk, Y., 2014, A Comparison of Stochastic Loss Reserving Methods, ICA 2014: 30TH INTERNATIONAL CONGRESS OF ACTUARIES, Washington, D.C., USA, 30 March-4 April 2014.
- 3:** Nevruz, E., Tüzel, S., Dodd (Özkök), E., 2013, Smoothing and Forecasting Turkish Mortality Rates, ISC 2013: 8TH INTERNATIONAL STATISTICS CONGRESS, Antalya, Türkiye, 27-30 October 2013.
- 2:** Arık, A., Nevruz, E., Karabey, U., 2013, Extreme Value Theory and Risk Analysis: An Application for Emerging Financial Markets, IME 2013: 17TH INTERNATIONAL CONGRESS ON INSURANCE: MATHEMATICS AND ECONOMICS, Copenhagen, Denmark, 1-3 July 2013.
- 1:** Yıldırım, F., Nevruz, E., Dodd (Özkök), E., 2013, Modeling Old-age Mortality Risk: Threshold Life Tables (in Turkish), USAK 2013: 1ST NATIONAL INSURANCE AND ACTUARY CONGRESS, Ankara, Türkiye, 5-6 June 2013 (poster presentation).

3. Teaching Experience and Other Relevant Activities

3.1 Teaching Experience

- AKT416 Actuarial Mathematics of Social Security (BSc), Spring, 2018-2024
- AKT201 Mathematical Statistics I (BSc), Fall, 2020-2024
- AKT202 Mathematical Statistics II (BSc), Spring, 2020-2024
- AKT109 Principles of Insurance (BSc), Fall, 2018-2022

3.2 Teaching Assistant Experience

- AKT704 Actuarial Data Graduation (MSc-PhD), Summer, 2014-2015
- AKT303 Insurance Statistics (BSc), Fall, 2013-2014
- AKT312 Actuarial Mathematics II (BSc), Spring, 2011-2012
- AKT321 Product and Finance (BSc), Fall, 2013-2015

- AKT201 Mathematical Statistics I (BSc), Fall, 2013-2019
- AKT202 Mathematical Statistics II (BSc), Spring, 2013-2015, 2016-2019
- AKT204 Actuarial Numerical Analysis (BSc), Spring, 2010-2011, 2012-2013
- AKT208 Life Insurance Mathematics (BSc), Spring, 2010-2013
- AKT105 Computer Programming (BSc), Fall, 2011-2013
- BEB650 Usage of Basic Information and Communication Technologies (BSc), Spring, 2010-2011

3.3 Trainings, Workshops, Seminars

Sustainable Development for Climate Change

Training and Certificate, Hacettepe University Lifelong Learning Center

7 November 2023-29 December 2023

Actuarial Perspective on Sustainability and Climate-Related Risks

Seminar, Actuarial Society of Türkiye (as a member)

21 June 2023

Developing Options for Risk Management of Smallholder Farmers in Agri-food Value Chain

Workshop, The Union of Chambers and Commodity Exchanges of Türkiye (TOBB), Food and Agriculture Organization (FAO) in Türkiye

15, 27-28 September 2022

Actuary Renewal Training

Training and Certificate, Actuarial Society of Türkiye (as a member)

December 2019, December 2023

Building a Canal from Data to Improved Results

Workshop, Willis Towers Watson, Panama City, Panama

25 August 2017

Application of Statistical Methods in Medicine

Winter School, Indian Statistical Institute, Kolkata, India

7-18 March 2016

SAS Enterprise Guide

Training and Certificate, Department of Statistics, Hacettepe University

11-12 September 2013

3.4 Other Trainings

Basic (Theoretical) Coach Training-1st Level

Training and Exam, Ministry of Youth and Sports

30 January 2024

Paragliding Training (P2 and P3 level)

Training and Licence, Bulut Aviation Sports Club, Ministry of Interior, Ministry of Youth and Sports, Turkish Aeronautical Association

December 2021-Present

Occupational Health and Safety of Employees

Training and Certificate, Hacettepe University Lifelong Learning Center

October 2022

Training of Trainers

Training and Certificate, Hacettepe University Lifelong Learning Center

December 2018

4. Impact Activities

4.1 Projects

Developing Alternatives for Agricultural Risk Management for Small Farmers in Agri-Food Value Chains

Consultant, *The Union of Chambers and Commodity Exchanges of Türkiye (TOBB), Food and Agriculture Organization (FAO) in Türkiye*

May 2022-March 2023

Actuarial Consultancy for Export Credit Insurance

Researcher, *Türk Eximbank (Export Credit Bank of Türkiye)*

May 2022-January 2023

Prioritisation and Ordering Of Risks (POOR) in Ghana's Social Security

Researcher, *ODA Research Seed Fund, University of Liverpool*

August 2019- August 2021

A Study of Risk Prioritization and Evaluation in Agricultural Insurance Portfolio

Researcher, *Hacettepe University, Scientific Research Projects Coordination Unit*

February 2018-September 2018

Evaluation of the Efficiency of Agricultural Insurance and Management of Natural Disasters in Agriculture

Researcher, *Ministry of Agriculture and Forestry, General Directorate of Agricultural Research and Policies (TAGEM)*

April 2015-March 2016

Actuarial Valuation

Pension Fund of TRNC Development Bank Ltd.

November 2016

Actuarial Valuation

Staff Health Protection and Solidarity Foundation of Türk Eximbank (Export Credit Bank of Türkiye)

May 2016

Actuarial Valuation

Pension Fund of National Intelligence Agency Personnel Social Security and Solidarity Foundation (MİPVAK)

June 2011

4.2 Awards and Honors

Awarded with a Bursary

International Actuarial Association (IAA) for the registration fee (virtual participation) International Congress of Actuaries (ICA2023)

28 May-1 June 2023

Awarded with an Incentive Grant

Scientific and Technological Research Council of Türkiye (TÜBİTAK), International Scientific Publications Incentive Program (UBYT)

publication in Journal of Computational and Applied Mathematics (SCI-Q1) in 2019

2019

Awarded with a Bursary

International Actuarial Association (IAA) for the accommodation costs and the registration fee International Congress of Actuaries (ICA2018)

4-8 June 2018

Awarded with a Bursary

Section for Actuarial Studies in Non-life Insurance of International Actuarial Association (ASTIN/IAA) for the accommodation costs, travel and the registration fee 2017 ASTIN AFIR/ERM Colloquium

20-24 August 2017

PhD Scholarship

Scientific and Technological Research Council of Türkiye (TÜBİTAK)

October 2012-March 2017

PhD Research Scholarship

Scientific Research Projects Coordination Unit, Hacettepe University

as a visiting PhD fellow, Applied Statistics Unit, Indian Statistical Institute, Kolkata

February-May 2016

Awarded with a Bursary

International Actuarial Association (IAA) for the accommodation costs and the registration fee

International Congress of Actuaries (ICA2014)

30 March-4 April 2014

MSc Scholarship

Scientific and Technological Research Council of Türkiye (TÜBİTAK)

October 2010-August 2011

Second Degree in Graduation

Department of Actuarial Sciences, Hacettepe University

June 2009

Certificate of High Accomplishment

Faculty of Science, Hacettepe University

September 2008

Bronze Medal

Inter-university Billiards Tournament, Başkent University

December 2005

4.3 Memberships

- Actuarial Society of Türkiye (AST)
(Full member of International Actuarial Association-IAA and Actuarial Association of Europe-AAE)
- Actuary Society (Türkiye)

4.4 Additional Skills

- **Languages**
Turkish (native), English, German
- **Computer Skills**
MS Office Applications, Latex
Programming Language of Java, Turbo Pascal
R, Matlab, SAS, SPSS Minitab, ArcGIS, WinQsb
- **Interests**
Paragliding, Billiards, Turkish Folk Dance

References

Available on request