

## Personal Information

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## International Researcher IDs

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Publons / Web Of Science ResearcherID: AAZ-6759-2020

ScopusID: 16023097100

Yoksis Researcher ID: 183364

## Education Information

Undergraduate, Anadolu University, Faculty Of Arts And Sciences, Felsefe, Turkey 2017 - 2020

Doctorate, Lancaster University, Department Of Mathematics And Statistics, United Kingdom 2004 - 2007

Postgraduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, İstatistik (YI) (Tezli), Turkey 2002 - 2004

Undergraduate Minor, Middle East Technical University, Faculty of Economic and Administrative Sciences, Department of Economics, Turkey 2000 - 2002

Undergraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, Turkey 1997 - 2002

## Dissertations

Doctorate, Gen ağları analizlerinde Bayesci metotlar, Lancaster University, Department Of Mathematics And Statistics, 2007

Postgraduate, Zaman serisi analizlerinde birim kök problemleri, Middle East Technical University, Graduate School of Natural and Applied Sciences, İstatistik (YI) (Tezli), 2004

## Research Areas

Biomedical Engineering, Statistical Analysis and Applications, Engineering and Technology

## Academic Titles / Tasks

Professor, Middle East Technical University, Graduate School of Natural and Applied Sciences, Biomedical Engineering, 2019 - Continues

Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2018 - Continues

Associate Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2012 - 2018

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2010 - 2012

Lecturer PhD, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2009 - 2010

Research Assistant PhD, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2007 - 2009

Research Assistant, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2002 - 2007

## Academic and Administrative Experience

Head of Department, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2022 - Continues

Internship Coordinator, Middle East Technical University, 2013 - Continues

Erasmus Program Department Coordinator, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2022 - 2022

Erasmus Program Institutional Coordinator, Middle East Technical University, Graduate School of Natural and Applied Sciences, Biomedical Engineering, 2019 - 2021

Head of Department, Middle East Technical University, Graduate School of Natural and Applied Sciences, Biomedical Engineering, 2019 - 2021

Chairman or Member of the Commission of Inquiry, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, 2018 - 2018

## Courses

Stochastic Processes, Undergraduate, 2022 - 2023

Multivariate Analyses, Undergraduate, 2022 - 2023

Decision Theory and Bayesian Analysis, Postgraduate, 2019 - 2020, 2018 - 2019

New Horizons in Statistics, Undergraduate, 2018 - 2019

Probability 1, Undergraduate, 2019 - 2020

NONPARAMETRIC STATISTICS, Undergraduate, 2017 - 2018

STATISTICAL METHODS, Undergraduate, 2017 - 2018

STATISTICAL METHODS, Undergraduate, 2018 - 2019

STATISTICS FOR BIOINFORMATICS, Postgraduate, 2018 - 2019

## Advising Theses

Purutçuoğlu V., Application of statistical methods in the analyses of foster family, Postgraduate, G.ATAR(Student), 2023

Purutçuoğlu V., Collective anomaly detection in time series using pitch frequency and dissimilarity features, Doctorate, E.CAN(Student), 2023

Purutçuoğlu V., Modelling mutual interaction of finance and human factor via various sorts of indices, Doctorate, B.KALAYCI(Student), 2023

Purutçuoğlu V., A non-parametric circular network construction via simulations and a Hidden Markov model for the HIV-1 protease cleavage site detection, Doctorate, E.DOĞAN(Student), 2023

UĞUR Ö., PURUTÇUOĞLU GAZİ V., Extension of leap condition in approximate stochastic simulation algorithms of biological networks, Postgraduate, S.DEMİRBUKEN(Student), 2021

PURUTÇUOĞLU GAZİ V., Graphical models in inference of biological networks, Doctorate, H.Farnoudkia(Student), 2020

Purutçuoğlu Gazi V., Novel model selection criteria on high dimensional biological networks, Postgraduate, G.BAHAR(Student), 2019

Purutçuoğlu Gazi V., INFERENCE OF LARGE-SCALE NETWORKS VIA STATISTICAL APPROACHES, Doctorate, E.AYYILDIZ(Student), 2019

PURUTÇUOĞLU GAZİ V., Analyses and modeling of ovarian cancer microarray data, Postgraduate, B.S(Student), 2019

Purutçuoğlu Gazi V., Model comparison for gynecological cancer datasets and selection of threshold value, Doctorate,

B.BAHÇIVANCI(Student), 2019  
PURUTÇUOĞLU GAZİ V., Different types of modellings and the inference of model parameters for complex biological systems, Doctorate, M.AĞRAZ(Student), 2017  
PURUTÇUOĞLU GAZİ V., Deterministic modeling and inference of biochemical networks, Postgraduate, D.SEÇİLMİŞ(Student), 2017  
PURUTÇUOĞLU GAZİ V., Deterministic modeling and inference of biological systems, Postgraduate, D.Seçilmiş(Student), 2017  
PURUTÇUOĞLU GAZİ V., Application of copulas in graphical models for inference of biological systems, Postgraduate, D.DOKUZOĞLU(Student), 2016  
Purutçuoğlu Gazi V., Stochastic simulations of biological networks under impulses, Postgraduate, M.ERGÜL(Student), 2016  
PURUTÇUOĞLU GAZİ V., Stochastic simulations of biological networks under i-mpulses, Postgraduate, M.ERGÜL(Student), 2016  
PURUTÇUOĞLU GAZİ V., Regulatory networks studied by ellipsoidal calculus, Postgraduate, S.YAYLA(Student), 2015  
PURUTÇUOĞLU GAZİ V., Comparison of the simulation tools for the deterministic modeling of biochemical networks, Postgraduate, G.TUNCER(Student), 2015  
YANIK T., PURUTÇUOĞLU GAZİ V., Effect of maternal high fat diet on hypothalamus vacularite of their offspring /, Postgraduate, H.Taner(Student), 2014  
PURUTÇUOĞLU GAZİ V., YANIK T., Effects of maternal high fat diet on hypothalamus vascularite of their offspring, Postgraduate, H.TANER(Student), 2014  
PURUTÇUOĞLU GAZİ V., ACAR A. C., Analysis of motifs in microRNA-transcription factor gene regulatory networks, Postgraduate, B.SÜRÜN(Student), 2014  
PURUTÇUOĞLU GAZİ V., Detection of the distribution and parameter estimation for the departing connectivity in biological networks, Postgraduate, O.DORCAS(Student), 2014  
PURUTÇUOĞLU GAZİ V., Comparative statistical microarray analysis of yeast data under heat shock stress, Postgraduate, D.VAROL(Student), 2014  
PURUTÇUOĞLU GAZİ V., Gaussian graphical approaches in estimation of biological systems, Postgraduate, E.AYYILDIZ(Student), 2013  
PURUTÇUOĞLU GAZİ V., Gene expression indices for single channel microarrays, Postgraduate, T.AKAL(Student), 2013

## **Jury Memberships**

Award, Ankara Üniversitesi Fen Bilimleri Ödülü, Ankara Üniversitesi, February, 2022  
Doctoral Examination, Doctoral Examination, Gazi University, December, 2021  
Associate Professor Exam, Associate Professor Exam, Middle East Technical University, November, 2021  
Associate Professor Exam, Associate Professor Exam, Middle East Technical University, May, 2021  
Associate Professor Exam, Associate Professor Exam, Middle East Technical University, May, 2021  
Associate Professor Exam, Associate Professor Exam, Orta Doğu Teknik Üniversitesi, March, 2021  
Committee Of Expert, Committee Of Expert, Middle East Technical University, January, 2021  
Associate Professor Exam, Associate Professor Exam, Middle East Technical University, April, 2020  
Associate Professor Exam, Associate Professor Exam, Middle East Technical University, April, 2020  
Appointment to Academic Staff-Professorship, Appointment Academic Staff, Gazi Üniversitesi, December, 2019  
Appointment to Academic Staff-Professorship, Appointment Academic Staff, Gazi Üniversitesi, January, 2019  
Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, December, 2018  
Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, November, 2018  
Award, Mustafa Parlar Vakfı ODTÜ Tez Ödülleri, Orta Doğu Teknik Üniversitesi, September, 2018  
Doctoral Examination, Doctoral Examination, Ankara Üniversitesi, July, 2018  
Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, July, 2018

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Optimal model description of finance and human factor indices**  
Kalaycı B., PURUTÇUOĞLU V., Weber G. W.  
Central European Journal of Operations Research, 2024 (SCI-Expanded)
- II. **A new collective anomaly detection approach using pitch frequency and dissimilarity: Pitchy anomaly detection (PAD)**  
Erkuş E. C., PURUTÇUOĞLU V.  
Journal of Computational Science, vol.72, 2023 (SCI-Expanded)
- III. **Outlier detection and quasi-periodicity optimization algorithm: Frequency domain based outlier detection (FOD)**  
Erkuş E. C., Purutcuoglu V.  
EUROPEAN JOURNAL OF OPERATIONAL RESEARCH, vol.291, no.2, pp.560-574, 2021 (SCI-Expanded)
- IV. **Novel model selection criteria for LMARS: MARS designed for biological networks**  
Bulbul G. B., PURUTÇUOĞLU GAZİ V.  
JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, vol.91, no.9, pp.1749-1761, 2021 (SCI-Expanded)
- V. **Vine copula graphical models in the construction of biological networks**  
Farnoudkia H., PURUTÇUOĞLU GAZİ V.  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.50, no.4, pp.1172-1184, 2021 (SCI-Expanded)
- VI. **Long-tailed graphical model and frequentist inference of the model parameters for biological networks**  
AĞRAZ M., PURUTÇUOĞLU GAZİ V.  
JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, vol.90, no.9, pp.1591-1605, 2020 (SCI-Expanded)
- VII. **Novel model selection criteria on sparse biological networks**  
Bulbul G. B., Purutcuoglu V., Purutcuoglu E.  
INTERNATIONAL JOURNAL OF ENVIRONMENTAL SCIENCE AND TECHNOLOGY, vol.16, no.9, pp.5359-5364, 2019 (SCI-Expanded)
- VIII. **Detection of abnormalities in heart rate using multiple Fourier transforms**  
Erkuş E. C., Purutcuoglu V., Purutcuoglu E.  
INTERNATIONAL JOURNAL OF ENVIRONMENTAL SCIENCE AND TECHNOLOGY, vol.16, pp.5237-5242, 2019 (SCI-Expanded)
- IX. **Copula Gaussian graphical modeling of biological networks and Bayesian inference of model parameters**  
Farnoudkia H., Purutcuoglu V.  
SCIENTIA IRANICA, vol.26, no.4, pp.2495-2505, 2019 (SCI-Expanded)
- X. **Extended lasso-type MARS (LMARS) model in the description of biological network**  
Agraz M., PURUTÇUOĞLU GAZİ V.  
JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, vol.89, no.1, pp.1-14, 2019 (SCI-Expanded)
- XI. **Loop-based conic multivariate adaptive regression splines is a novel method for advanced construction of complex biological networks**  
Ayyıldız Demirci E., Purutçuoğlu Gazi V., Weber G. W.  
EUROPEAN JOURNAL OF OPERATIONAL RESEARCH, vol.270, pp.852-861, 2018 (SCI-Expanded)
- XII. **Modeling of various biological networks via LCMARS**  
AYYILDIZ DEMİRCİ E., PURUTÇUOĞLU GAZİ V.  
JOURNAL OF COMPUTATIONAL SCIENCE, vol.28, pp.148-154, 2018 (SCI-Expanded)
- XIII. **Transcriptomic analysis of the heat stress response for a commercial baker's yeast *Saccharomyces cerevisiae***  
VAROL D., PURUTÇUOĞLU GAZİ V., YILMAZ R.  
GENES & GENOMICS, vol.40, no.2, pp.137-150, 2018 (SCI-Expanded)
- XIV. **Impulsive Expressions in Stochastic Simulation Algorithms**  
Altıntan D., Purutcuoglu V., UĞUR Ö.

INTERNATIONAL JOURNAL OF COMPUTATIONAL METHODS, vol.15, no.1, 2018 (SCI-Expanded)

- XV. **Comprehensive Analyses of Gaussian Graphical Model under Different Biological Networks**  
Dokuzoglu D., PURUTÇUOĞLU GAZİ V.  
ACTA PHYSICA POLONICA A, vol.132, no.3, pp.1106-1111, 2017 (SCI-Expanded)
- XVI. **Gibbs Sampling in Inference of Copula Gaussian Graphical Model Adapted to Biological Networks**  
PURUTÇUOĞLU GAZİ V., Farnoudkia H.  
ACTA PHYSICA POLONICA A, vol.132, no.3, pp.1112-1117, 2017 (SCI-Expanded)
- XVII. **Robust background normalization method for one-channel microarrays**  
AKAL T., PURUTÇUOĞLU GAZİ V., Weber G.  
TURKISH JOURNAL OF BIOCHEMISTRY-TURK BIYOKIMYA DERGISI, vol.42, no.2, pp.111-121, 2017 (SCI-Expanded)
- XVIII. **Comparison of two inference approaches in Gaussian graphical models**  
PURUTÇUOĞLU GAZİ V., AYYILDIZ DEMİRCİ E., Wit E.  
TURKISH JOURNAL OF BIOCHEMISTRY-TURK BIYOKIMYA DERGISI, vol.42, no.2, pp.203-211, 2017 (SCI-Expanded)
- XIX. **Bernstein approximations in glasso-based estimation of biological networks**  
PURUTÇUOĞLU GAZİ V., Agraz M., Wit E.  
CANADIAN JOURNAL OF STATISTICS-REVUE CANADIENNE DE STATISTIQUE, vol.45, no.1, pp.62-76, 2017 (SCI-Expanded)
- XX. **MARS as an alternative approach of Gaussian graphical model for biochemical networks**  
AYYILDIZ DEMİRCİ E., Agraz M., PURUTÇUOĞLU GAZİ V.  
JOURNAL OF APPLIED STATISTICS, vol.44, no.16, pp.2858-2876, 2017 (SCI-Expanded)
- XXI. **Clustering current climate regions of Turkey by using a multivariate statistical method**  
İyigün C., Turkes M., Batmaz İ., Yozgatlıgil C., Purutcuoglu V., Koc E. K., Ozturk M. Z.  
THEORETICAL AND APPLIED CLIMATOLOGY, vol.114, pp.95-106, 2013 (SCI-Expanded)
- XXII. **Inference of the stochastic MAPK pathway by modified diffusion bridge method**  
PURUTÇUOĞLU GAZİ V.  
CENTRAL EUROPEAN JOURNAL OF OPERATIONS RESEARCH, vol.21, no.2, pp.415-429, 2013 (SCI-Expanded)
- XXIII. **Robust Gene Expression Index**  
PURUTÇUOĞLU GAZİ V.  
MATHEMATICAL PROBLEMS IN ENGINEERING, 2012 (SCI-Expanded)
- XXIV. **Estimating Network Kinetics of the MAPK/ERK Pathway Using Biochemical Data**  
Purutçuoğlu Gazi V., Wit E.  
MATHEMATICAL PROBLEMS IN ENGINEERING, 2012 (SCI-Expanded)
- XXV. **Bayesian inference for the MAPK/ERK pathway by considering the dependency of the kinetic parameters**  
PURUTÇUOĞLU GAZİ V., Wit E.  
BAYESIAN ANALYSIS, vol.3, no.4, pp.851-886, 2008 (SCI-Expanded)
- XXVI. **FGX: a frequentist gene expression index for Affymetrix arrays**  
Purutcuoglu V., Wit E.  
BIostatistics, vol.8, no.2, pp.433-437, 2007 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Extension of Leap Condition in Approximate Stochastic Simulation Algorithms of Biological Networks**  
Demirbüken S., Purutçuoğlu Gazi V.  
Turkish Journal of Mathematics and Computer Science, vol.15, no.1, pp.1-11, 2022 (Peer-Reviewed Journal)
- II. **Application of r-vine copula method in Istanbul stock market data: A case study for the construction sector**  
Farnoudkia H., Purutçuoğlu Gazi V.  
Journal of Turkish Operations Management, vol.4, no.2, pp.509-518, 2020 (Peer-Reviewed Journal)
- III. **Estimation of gynecological cancer networks via target proteins**

Bahçivancı B., Purutçuoğlu Gazi V., Purutçuoğlu E., Ürün Y.

Journal of Multidisciplinary Engineering Science and Technology, vol.5, no.12, pp.9296-9302, 2018 (Peer-Reviewed Journal)

- IV. **Is it necessary to apply the outlier detection for protein-protein interaction data?**  
Ayyıldız E., Purutçuoğlu Gazi V.  
Journal of Biostatistics-Turkish Clinics, vol.10, no.3, pp.173-186, 2018 (Peer-Reviewed Journal)
- V. **Exact stochastic simulation algorithms and impulses in biological systems**  
Altıntan D., Purutçuoğlu Gazi V.  
International Journal of Computational and Experimental Science and Engineering, vol.4, no.2, pp.41-47, 2018 (Peer-Reviewed Journal)
- VI. **Gen Ağlarının Matematiksel Modellenmesi**  
PURUTÇUOĞLU GAZİ V., AYYILDIZ DEMİRCİ E.  
Türkiye Klinikleri Biyoistatistik Dergisi, vol.9, no.2, pp.143-155, 2017 (Peer-Reviewed Journal)
- VII. **Application of impulsive deterministic simulation of biochemical networks via simulation tools**  
Purutçuoğlu Gazi V.  
Proceedings of the Jangeon Mathematical Society, vol.20, no.1, pp.105-119, 2017 (Scopus)
- VIII. **Gen ağlarının matematiksel modellemesi**  
Purutçuoğlu Gazi V.  
Biyoistatistik Dergisi-Türkiye Klinikleri, vol.9, no.2, pp.143-155, 2017 (Peer-Reviewed Journal)
- IX. **Different types of Bernstein operators in inference of Gaussian graphical model**  
Agraz M., PURUTÇUOĞLU GAZİ V.  
COGENT MATHEMATICS, vol.3, 2016 (ESCI)
- X. **Comparative assessment of simulation tools for bio- chemical networks**  
Purutçuoğlu Gazi V.  
American Review of Mathematics and Statistics, vol.3, no.2, pp.69-82, 2015 (Peer-Reviewed Journal)
- XI. **A short note on resolving singularity problems in covariance matrices**  
Purutçuoğlu Gazi V., Ayyıldız E., Wit E.  
International Journal of Statistics and Probability, vol.1, no.2, pp.113-118, 2012 (Peer-Reviewed Journal)
- XII. **Türkiye İklim Bölgelerinin Hiyerarşik Kümeleme Yöntemi ile Belirlenmesi**  
Kartal E., İyigün C., Fahmi M. F., Yozgatlıgil C., Purutçuoğlu Gazi V., Batmaz İ., Köksal G., Turkes M.  
İSTATİSTİK ARAŞTIRMA DERGİSİ, vol.8, pp.13-25, 2011 (Peer-Reviewed Journal)
- XIII. **Stukel's extended logistic regression analysis with R**  
Purutçuoğlu Gazi V.  
Journal of Biostatistics-Turkish Clinics, vol.3, no.1, pp.49-56, 2011 (Peer-Reviewed Journal)
- XIV. **Review of the six-sigma methodology and its case studies**  
Purutçuoğlu Gazi V.  
Selçuk Journal of Applied Mathematics, vol.12, no.1, pp.95-108, 2011 (Peer-Reviewed Journal)
- XV. **Biyokimyasal reaksiyonlar için stokastik simülasyon algoritmalarına genel bir bakış**  
Purutçuoğlu Gazi V.  
İstatistik Araştırma Dergisi, vol.7, no.1, pp.70-82, 2010 (Peer-Reviewed Journal)
- XVI. **Bayesian inference of the complex MAPK pathway under structural dependency**  
Purutçuoğlu Gazi V.  
Journal of Statistical Research, vol.6, no.1, pp.1-17, 2008 (Peer-Reviewed Journal)
- XVII. **Exact and Approximate Stochastic Simulations of the MAPK Pathway and Comparisons of Simulations' Results**  
Purutçuoğlu Gazi V.  
Journal of Integrative Bioinformatics, vol.38, no.3, pp.1-13, 2006 (ESCI)

## Books & Book Chapters

- I. **İnsan-Makine Uygulamalarında Kullanılacak Fizyolojik İnsan Verileri için Temel Alt-Yapısal Yazılım ve Donanım Süreçleri Geliştirme**  
Purutçuoğlu V. (Editor), Weber G. W. (Editor), Farnoudkia H. (Editor)  
CRC, New York, New York, 2022
- II. **Evaluation of Data Compression Methods for Efficient Transport and Classification of Facial EMG Signals**  
Arı F., Akan E., Aktaş Dinçer H., Erkuş E. C., Farzin Asanjan M., Gökçay D., İleri F., Purutçuoğlu V., Somuncuoğlu A. N.  
in: Operations Research New Paradigms and Emerging Applications, Vilda Purutçuoğlu, Gerhard-Wilhelm Weber, Hajar Farnoudkia, Editor, CRC, New York, New York, pp.239-258, 2022
- III. **Two new non-parametric models for biological networks**  
Seçilmiş D., Ağraz M., Purutçuoğlu Gazi V.  
in: Bayesian Reasoning and Gaussian Processes for Machine Learning Applications, Hemachandran K, Shubham Tayal, Preetha Mary George, Parveen Singla, Utku Kose, Editor, CRC, New York, New York, pp.77-100, 2022
- IV. **Operation Research in Neuroscience: A Recent Perspective of Operation Research Application in Finance**  
Kalaycı B., Purutçuoğlu V., Wilhelm Weber G.  
in: Operations Research: New Paradigms and Emerging Applications, Purutçuoğlu, V., Weber, G.W. and Farnoudkia, H., Editor, CRC, New York, New York, pp.170-190, 2022
- V. **Bayesian Inference for Undirected Network Models**  
Farnoudkia H., Purutçuoğlu V.  
in: Operations Research: New Paradigms and Emerging Applications, Purutçuoğlu, V., Weber, G.W. and Farnoudkia, H., Editor, CRC, New York, New York, pp.218-238, 2022
- VI. **Generating various types of graphical models via MARS**  
Ayyıldız Demirci E., Purutçuoğlu V.  
in: Bayesian Reasoning and Gaussian Processes for Machine Learning Applications, K. Hemachandran, S. Tayal, P. M. George, P. Singla, U. Kose., Editor, CRC, New York, New York, pp.101-110, 2022
- VII. **Vine copula and artificial neural network models to analyze breast cancer data**  
Farnoudkia H., Purutçuoğlu Gazi V.  
in: Artificial Intelligence for Data-Driven Medical Diagnosis, Deepak Gupta, Utku Kose, Bao Le Nguyen and Siddhartha Bhattacharyya, Editor, Walter de Gruyter, Inc., Berlin, pp.287-304, 2021
- VIII. **Construction of a new model to investigate breast cancer data**  
Ağyüz U., PURUTÇUOĞLU V., PURUTÇUOĞLU E., ÜRÜN Y.  
in: Modeling, Dynamics, Optimization and Bioeconomics IV, A. Pinto and D. Zilberman, Editor, Springer, pp.11-29, 2021
- IX. **Construction of a new model to investigate breast cancer data**  
Ağyüz U., Purutçuoğlu V., Purutçuoğlu E., Ürün Y.  
in: Modeling, Dynamics, Optimization and Bioeconomics IV, A. Pinto, D. Zilberman, Editor, Springer Nature, Chur, pp.11-29, 2021
- X. **Vine copula and artificial neural network models to analysis breast cancer data**  
PURUTÇUOĞLU V., Farnoudkia H.  
in: Artificial Intelligence for Data-Driven Medical Diagnosis, D. Gupta, U. Kose, B. L. Nguyen, S. Bhattacharyya, Editor, De Gruyter, pp.287-303, 2021
- XI. **Detection of HIV-1 protease cleavages sites via hidden Markov model and physicochemical properties of aminoacids**  
Doğan Dar E., PURUTÇUOĞLU GAZİ V.  
in: Numerical Solutions of Real-Life Nonlinear Phenomena., J. A. T. Machado, N. Ozdemir, D. Baleanu, Editor, Springer, Cham, pp.226-233, 2020
- XII. **Detection of HIV-1 protease cleavages sites via hidden Markov model and physicochemical properties of aminoacids**  
Doğan Dar E., Purutçuoğlu Gazi V., Purutçuoğlu E.  
in: Numerical Solutions of Realistic Nonlinear Phenomena, J. A. T. Machado, N. Ozdemir, D. Baleanu, Editor, Springer,



London/Berlin , Ankara, pp.171-193, 2020

- XIII. **Empirical copula in the detection of batch effects**  
Ağraz M., Purutçuoğlu Gazi V.  
in: Mathematical Methods in Engineering, K. Tas D. Baleanu and J.A. Mashado, Editor, Springer, London/Berlin , Ankara, pp.25-39, 2019
- XIV. **Modeling of biochemical networks via classification and regression tree methods**  
Seçilmiş D., Purutçuoğlu Gazi V.  
in: Mathematical Methods in Engineering, K.Taş,D. Baleanu and J.A. Mashado, Editor, Springer, London/Berlin , Chur, pp.87-102, 2019
- XV. **Modeling of biochemical networks via classification and regression tree methods**  
Seçilmiş D., Purutçuoğlu Gazi V.  
in: Mathematical Methods in Engineering, K. Tas D. Baleanu and J.A. Mashado, Editor, Springer, London/Berlin , Ankara, pp.87-102, 2018
- XVI. **Major simulation tools for biochemical networks**  
Tuncer G., Purutçuoğlu Gazi V.  
in: Modelling, Dynamics, Optimization and Bioeconomics III, A. Pinto,Z. Zilberman, Editor, Springer, London/Berlin , Berlin, pp.443-467, 2018
- XVII. **Stochastic modelling of biochemical networks and inference of model parameters**  
Purutçuoğlu Gazi V.  
in: Modelling, Dynamics, Optimization and Bioeconomics III, A. Pinto,Z. Zilberman, Editor, Springer, London/Berlin , Berlin, pp.369-385, 2018
- XVIII. **Major simulation tools for biochemical networks**  
Tuncer G., PURUTÇUOĞLU GAZI V.  
in: Modelling, Dynamics, Optimization and Bioeconomics III, A. Pinto, Z. Zilberman, Editor, Springer, pp.443-467, 2018
- XIX. **Stochastic modelling of biochemical networks and inference of model parameters**  
PURUTÇUOĞLU GAZI V.  
in: Modelling, Dynamics, Optimization and Bioeconomics III, A. Pinto, Z. Zilberman, Editor, Springer, pp.369-385, 2018
- XX. **Transformations of data in deterministic modelling of biological networks**  
Ağraz M., Purutçuoğlu Gazi V.  
in: Intelligent Mathematics II: Applied Mathematics and Approximation Theory, O. Duman, Editor, Springer, London/Berlin , Berlin, pp.343-356, 2016
- XXI. **Biyoinformatik Alanında İstatistik**  
Purutçuoğlu Gazi V.  
Nobel Yayın Dağıtım, Ankara, 2014
- XXII. **Advanced mathematical and statistical tools in the dynamic modelling and simulation of gene-environment networks**  
Defterli Ö., Purutçuoğlu Gazi V., Weber G. W.  
in: Modeling, Optimization, Dynamics and Bioeconomy, D. Zilberman and A. Pinto, Editor, Springer, London/Berlin , Berlin, pp.235-257, 2014
- XXIII. **Biyolojik ağlar, evrim, hastalık ve gen fonksiyonlarını ortaya çıkarmaktadır**  
Purutçuoğlu Gazi V.  
in: Biyologlar İçin Biyoinformatik, Z. Kaya, Editor, Nobel Yayın Dağıtım, Ankara, pp.291-314, 2014
- XXIV. **Determining the Climate Zones of Turkey by Center-Based Clustering Methods**  
Fahmi F., Kartal E., Iyigün C., Turkes M., Batmaz I., Yozgatligil C., Purutçuoğlu Gazi V., Köksal G.  
in: Nonlinear and Complex Dynamics: Applications in Physical Biological and Financial Systems, J.A. Tenreiro Machado,Baleanu,D. and A. Luo, Editor, Springer, London/Berlin , London, pp.171-178, 2011
- XXV. **Survey of background normalizations for Affymetrix arrays and a case study**  
Purutçuoğlu Gazi V., Kayış E., Weber G. W.  
in: Advances in Intelligent Modelling and Simulation: Simulation Tools and Applications, A. Byrski,Z. Oplatkova,M.



Carvalho, and M. Kisiel-Dorohinicki, Editor, Springer, London/Berlin, London, pp.199-219, 2011

XXVI. **Gaining weights and feeling good about it**

Wit E., Purutçuoğlu Gazi V., Odonovan L., Zhu X.

in: *Microarray Technology and Cancer Gene Proling*, S. Mocellin, Editor, Springer, London/Berlin, London, pp.31-38, 2006

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **A new frequency domain and dynamic time warping based feature: WFOD feature**  
ERKUŞ E. C., PURUTÇUOĞLU V.  
2nd International Conference on Advanced Information Scientific Development: Innovating Scientific Learning for Deep Communication, ICAISD 2021, Jakarta, Indonesia, 5 - 06 August 2021, vol.2714
- II. **Detection of Anomalies via Robust Artificial Neural Networks and Gaussian Mixture Models**  
KAYGUSUZ M. A., PURUTÇUOĞLU V.  
9th International Conference on Experimental Science and Engineering, 28 October 2022
- III. **Conditional Randomization Test for Causal Additive Models in Biological Networks**  
KAYGUSUZ M. A., PURUTÇUOĞLU V.  
9th International Conference on Experimental Science and Engineering, 28 October 2022
- IV. **Modelling the Mutual Interaction of Finance and Human Factor by using Sentiment Index Data**  
Kalaycı B., PURUTÇUOĞLU V.  
41st EBES Conference - Berlin, Berlin, Germany, 12 October 2022, pp.1-31
- V. **Construction of Mutual Interaction Between Finance and Human Factor by Various Modeling Techniques**  
Kalaycı B., PURUTÇUOĞLU V.  
Eighth International Conference on Economics of Turkish Economic Association (IceTEA2022), 01 September 2022
- VI. **Effect of bootstrapping in sparse biological data and model selection via likelihood ratio test**  
Kaygusuz M. A., Purutçuoğlu Gazi V.  
24. International Conference on Computational Statistics (COMPSTAT 2022), Bologna, Italy, 23 - 26 August 2022, pp.1
- VII. **Distribution on Control in Approximate Stochastic Simulation Algorithm of Biological Systems**  
PURUTÇUOĞLU V., Köstekçi S. M.  
14th International Conference on Engineering and Natural Sciences, 18 - 19 July 2022
- VIII. **A Case Study in Statistical Modeling on Divorce Occurrence in Turkish Family Structure**  
PURUTÇUOĞLU V., VAROL D.  
14th International Conference on Engineering and Natural Sciences, 18 July 2022
- IX. **Bootstrap in gaussian mixture models and performance assessment**  
Kaygusuz M. A., Göğebakan M., Akoğul S., Purutçuoğlu Gazi V.  
6th International Conference on Mathematics (ICOMATH 2022), İstanbul, Turkey, 21 - 24 June 2022, pp.145-154
- X. **Quantile regression neural network models in the description of biological networks with outliers observations**  
KAYGUSUZ M. A., PURUTÇUOĞLU V.  
6th INTERNATIONAL CONFERENCE ON MATHEMATICS "An Istanbul Meeting for World Mathematicians", 21 June 2022
- XI. **Anomaly Detection in Sliding Windows Using Dissimilarity Metrics in Time Series Data**  
ERKUŞ E. C., PURUTÇUOĞLU V.  
Anomaly detection in sliding windows using dissimilarity metrics in time series data, 20 May 2022
- XII. **Extension of leap condition in approximate stochastic simulation algorithms of biological networks with 2nd and 3rd order Taylor expansion**  
Demirbüken S., Purutçuoğlu V.

2nd International Conference on Mathematics and Its Applications in Science and Engineering (ICMASE 2021), Salamanca, Spain, 1 - 02 July 2021, pp.271-290

- XIII. **Artificial neural networks for nonparametric regression with biological data**  
KAYGUSUZ M. A., SOMUNCUOĞLU A. N., PURUTÇUOĞLU V.  
5th INTERNATIONAL ONLINE CONFERENCE ON MATHEMATICS, 01 December 2021, pp.400-410
- XIV. **Random forest regression model extended by alternative model selection procedure**  
Kaygusuz M. A., Purutçuoğlu V.  
2nd International Conference on Applied Mathematics in Engineering, Balıkesir, Turkey, 1 - 03 September 2021, pp.50-55
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The Second International Conference on Applied Mathematics in Engineering, Balıkesir, Turkey, 1 - 03 September 2021, pp.43
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- XVIII. **A new frequency domain and dynamic time warping based feature**  
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10th World Congress in Probability and Statistics, Seoul, South Korea, 19 - 23 July 2021, pp.142-143
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6th International Conference on Dynamics Games and Science, DGS-VI-2018, 19th Latin American Conference on Economic Theory, JOLATE 2018 and 21st International Consortium on Applied Bioeconomy Research, ICABR 2017, California, United States Of America, 30 May - 02 June 2017, vol.365, pp.11-29
- XXII. **Comparison of several machine learning classifiers for arousal classification: A preliminary study**  
Erkuş E. C., Purutçuoğlu Gazi V., Arı F., Gökçay D.  
Medical Technologies Congress (TIPTEKNO 2020), İstanbul, Turkey, 19 - 20 November 2020, pp.161-167
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International Conference on Artificial Intelligence and Applied Mathematics in Engineering, Antalya, Turkey, 20 - 22 April 2019, vol.43, pp.107-126
- XXIX. **Feature Extraction of Hidden Oscillation in ECG Data via Multiple-FOD Method**  
Erkuş E. C., Purutçuoğlu Gazi V.  
International Conference on Artificial Intelligence and Applied Mathematics in Engineering, Antalya, Turkey, 20 - 22 April 2019, vol.43, pp.47-56
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5th International Conference on Natural and Engineering Sciences, 27 - 30 August 2019
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XII Symposium of Polish Bioinformatics Society , Krakow, Poland, 19 - 21 September 2019, pp.18
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Regression Model for the Construction of Biological Networks via Random Forest Algorithm, 16 - 17 October 2015
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17th International Symposium on the Biology of Actinomycetes, Aydın, Turkey, 01 June 2014, pp.123
- CX. Detection of Unreliable measurements in long term time series via data mining techniques case in Turkish climate data**  
YAZICI C., PURUTÇUOĞLU GAZİ V., YOZGATLIGİL C., İYİGÜN C., BATMAZ İ.  
International IIE Conference, 26 - 28 June 2013
- CXI. Let- 7 cluster as a meta-signature for grade classification in breast cancer**  
Purutçuoğlu Gazi V.  
8th International Symposium on Health, Informatics and Bioinformatics, Ankara, Turkey, 01 June 2013, pp.1
- CXII. Modelling the Extreme Precipitation Data: Case Study from Turkey**  
Purutçuoğlu Gazi V.  
26th European Conference on Operational Research, Rome, Italy, 01 June 2013, pp.221
- CXIII. Inference of the biological systems via L1-penalized lasso regression**  
Purutçuoğlu Gazi V.

- 29th Meeting of Statisticians, Budapest, Hungary, 01 June 2013, pp.38
- CXIV. **Comparative analysis of a one-channel microarray dataset by different methods**  
Purutçuoğlu Gazi V.  
29th Meeting of Statisticians, Budapest, Hungary, 01 June 2013, pp.308
- CXV. **Comparing Clustering Techniques for Real Microarray Data**  
PURUTÇUOĞLU GAZİ V., Kayis E.  
IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining, İstanbul, Turkey, 26 - 29 August 2012, pp.788-791
- CXVI. **Detection of seasonal changes in climate data by comparative analysis A case study for Turkey**  
AKAL T., FAHMİ F., KARTAL E., PURUTÇUOĞLU GAZİ V., İYİĞÜN C., YOZGATLIGİL C., BATMAZ İ.  
25th European Conference on Operations Research, 8 - 11 July 2012
- CXVII. **Reconstruction of a complex biochemical system and forecasting its behaviour**  
Purutçuoğlu Gazi V.  
25th Confer-ence of European Chapter on Combinatorial Optimization, Antalya, Turkey, 01 June 2012, pp.12
- CXVIII. **Developping precipitation models for continental Central Anatolia, Turkey**  
Purutçuoğlu Gazi V.  
25th European Conference on Operational Research, Vilnius, Lithuania, 01 June 2012, pp.208
- CXIX. **Investigating the seasonal patterns of Continental Central Anatolia by clustering**  
Purutçuoğlu Gazi V.  
25th Conference of European Chapter on Combinatorial Optimization, Antalya, Turkey, 01 June 2012, pp.9
- CXX. **Investigating the Seasonal Patterns of Continental Central Anatolia by Clustering**  
AKAL T., PURUTÇUOĞLU GAZİ V., BATMAZ İ., KARTAL KOÇ E., İYİĞÜN C., YOZGATLIGİL C.  
The 25th Conference of European Chapter on Combinatorial Optimization, 26 - 28 April 2012
- CXXI. **Stochastic modelling and parameter estimation of the HCV network**  
Purutçuoğlu Gazi V.  
16th INFORMS Applied Probability Conference, Stockholm, Sweden, 01 June 2011, pp.81-82
- CXXII. **Network structure**  
Purutçuoğlu Gazi V.  
6th International Symposium on Health, Informatics and Bioinformatics, İzmir, Turkey, 01 June 2011, pp.24
- CXXIII. **Inference of the JAK-STAT gene network via graphical models**  
Purutçuoğlu Gazi V., Erdem T., Weber G. W.  
23rd International Conference on Systems Research, Informatics and Cybernetics, Berlin, Germany, 01 June 2011, pp.46-50
- CXXIV. **Validity of homogeneity tests for meteorological time series data: a simulation study**  
Yozgatlıgil C., Yazıcı C., Purutçuoğlu Gazi V., Batmaz İ.  
58th ISI World Statistics Congress, Dublin, Ireland, 01 June 2011, pp.1-6
- CXXV. **Homogeneity analysis for dependent climate data**  
Yazıcı C., Purutçuoğlu Gazi V., Yozgatlıgil C., Batmaz İ., Bayramoğlu K.  
6th International Statistical Congress, Antalya, Turkey, 01 June 2011, pp.1
- CXXVI. **Diffusion bridge method in inference of complex biochemical systems**  
Purutçuoğlu Gazi V.  
2nd International Symposium on Computing in Science and Engineering, Antalya, Turkey, 01 June 2011, pp.621-622
- CXXVII. **İklim değişikliğinin Türkiye üzerindeki etkisinin kümeleme yöntemleri ile incelenmesi**  
Purutçuoğlu Gazi V.  
Uluslararası Katılımlı Coğrafya Kongresi Bildiri Kitabı,, İstanbul, Turkey, 01 June 2011, pp.201-210
- CXXVIII. **MODELLING LIPID BIOSYNTHESIS PATHWAYS OF OIL PALM BY BOOLEAN AND GRAPHICAL APPROACHES**  
Quek E. M. P., PURUTÇUOĞLU GAZİ V., Sambanthamurthi R., WilhelmWeber G.  
6th International Symposium on Health Informatics and Bioinformatics (HIBIT), İzmir, Turkey, 2 - 05 May 2011, pp.129-135

- CXXXIX. **YAĞIŞ VERİLERİNDE STANDART NORMAL TÜRDEŞLİK TESTİNİN KULLANILABİLİRLİĞİNİN BENZETİM YÖNTEMİ İLE DEĞERLENDİRİLMESİ**  
YOZGATLIGİL C., PURUTÇUOĞLU GAZİ V., YAZICI C., BATMAZ İ.  
7. İstatistik Günleri Sempozyumu, 28 April - 01 May 2011, pp.32-34
- CXXX. **Türkiye İklim Bölgelerinin Hiyerarşik Kümeleme Yöntemi ile Belirlenmesi**  
KARTAL KOÇ E., FAHMİ F., İYİĞÜN C., TÜRKEŞ M., YOZGATLIGİL C., PURUTÇUOĞLU GAZİ V., BATMAZ İ., KÖKSAL G.  
7. İSTATİSTİK GÜNLERİ SEMPOZYUMU, Turkey, 28 June 2010, pp.137-138
- CXXXI. **FGX implementation in two case studies**  
Purutçuoğlu Gazi V.  
International Symposium on Computational System Engineering, Aydın, Turkey, 01 June 2010, pp.157
- CXXXII. **Esenboğa, Atatürk ve London City Havaalanlarındaki mevsimsel hareketliliğin göstermelik değişken yöntemiyle tespit edilmesi**  
Konak D., Purutçuoğlu Gazi V.  
7. İstatistik Günleri, Ankara, Turkey, 01 June 2010, pp.34-42
- CXXXIII. **Stochastic simulation of large biochemical systems by approximate Gillespie algorithm**  
Purutçuoğlu Gazi V.  
5th International Symposium on Health, Informatics and Bioinformatics, Antalya, Turkey, 01 June 2010, pp.181-186
- CXXXIV. **Yağış verilerinde standart normal türdeşlik testinin kullanılabilirliğinin benzetim yöntemi ile değerlendirilmesi**  
Purutçuoğlu Gazi V.  
7. İstatistik Günleri Sempozyumu, Ankara, Turkey, 01 June 2010, pp.32-34
- CXXXV. **Testing unit root and comparison of estimates**  
Purutçuoğlu Gazi V., Tiku M.  
14th International Congress on Computational and Applied Mathematics, Antalya, Turkey, 01 June 2009, pp.185
- CXXXVI. **Estimation of gene expression levels for Affymetrix arrays**  
Purutçuoğlu Gazi V.  
5th Conference of the Eastern Mediterranean Region of the International Biometric Society, Antalya, Turkey, 01 June 2009, pp.100
- CXXXVII. **Rao-blackwellized estimates for the multivariate Bayesian inference**  
Purutçuoğlu Gazi V., Wit E.  
International Conference of Mathematical Sciences, İstanbul, Turkey, 01 June 2009, pp.380
- CXXXVIII. **Inclusion of convoluted measurements in Bayesian inference of the MAPK/ERK pathway via multivariate diffusion model**  
Purutçuoğlu Gazi V., Wit E.  
3rd International Symposium on Health, Informatics and Bioinformatics, İstanbul, Turkey, 01 June 2008, pp.1-15
- CXXXIX. **FGX (frequentist gene expression index) for Affymetrix arrays under non-normality assumption**  
Purutçuoğlu Gazi V.  
8th International Conference on Robust Statistics, Antalya, Turkey, 01 June 2008, pp.79-80
- CXL. **An approximation algorithm based on leap condition for stochastic simulation of biomedical systems**  
Purutçuoğlu Gazi V., Wit E.  
4th International Conference \Inverse problems: Modelling and Simulation, Aydın, Turkey, 01 June 2008, pp.151-152
- CXLI. **Variational approximation in inference of the kinetic parameters of the MAPK/ERK pathway**  
Purutçuoğlu Gazi V., Wit E.  
CRISM Workshop: Bayesian Inference for high-dimensional data,, Coventry, United Kingdom, 01 June 2008, pp.10-11
- CXLII. **A new method in approximate stochastic simulations and application in real biochemical systems**  
Purutçuoğlu Gazi V., Wit E.  
17th International Workshop on Mathematical and Statistical Aspects of Molecular Biology, Manchester, United

Kingdom, 01 June 2007, pp.34

**CXLIII. Bayesian inference for the MAPK/ERK pathway by considering the dependency of the kinetic parameters**

Purutçuoğlu Gazi V., Wit E.

5th Bayesian Inference in Stochastic Processes,, Valencia, Spain, 01 June 2007, pp.42

**CXLIV. Stochastic modelling of the MAPK signalling pathway**

Purutçuoğlu Gazi V., Wit E.

21st International Workshop on Statistical Modelling, Galway, Ireland, 01 June 2006, pp.431-437

## **Expert Reports**

- I. **FUNCTION BASED ADAPTIVE EXPONENTIALLY WEIGHTED MOVING AVERAGE CONTROL CHARTS**  
Purutçuoğlu V.  
pp.3, Lahore, 2022
- II. **Memory Type Control Charts based on Bayesian Theory: Development and Evaluation**  
Purutçuoğlu V.  
pp.3, Islamabad, 2022
- III. **A New Class of Weibull Generated Distribution**  
Purutçuoğlu V.  
pp.4, Islamabad, 2021
- IV. **Some Modified Schemes of Ranked Set Sampling for Estimation of Population Mean**  
Purutçuoğlu V.  
pp.3, Islamabad, 2021
- V. **Generating new class of distributions**  
Purutçuoğlu Gazi V.  
pp.132, Islamabad, 2020
- VI. **MODELING OF SUPPLY AND DEMAND FOR MAIZE IN KILIFI DISTRICT KENYA A COBWEB MODEL APPROACH**  
PURUTÇUOĞLU GAZİ V.  
2015
- VII. **Estimating performance of rail transport by bootstrap data envelopment analysis**  
PURUTÇUOĞLU GAZİ V.  
2015
- VIII. **Chemical composition and antimicrobial activity of essential oils of Cyperus fuscus L s tubers collected from Ankara**  
PURUTÇUOĞLU GAZİ V.  
2015
- IX. **An application of size bias method**  
PURUTÇUOĞLU GAZİ V.  
2015
- X. **Exon Prediction in Eukaryotic Genes using an Efficient Algorithm**  
PURUTÇUOĞLU GAZİ V.  
2015

## **Supported Projects**

PURUTÇUOĞLU V., Project Supported by Higher Education Institutions, Dairesel Veriler İçin Ağ Modellemesinde Parametre Tahmini Ve Model Seçimi, 2023 - Continues

PURUTÇUOĞLU V., ERKUŞ E. C., KÖSTEKÇİ S. M., UĞUR Ö., ŞENOĞLU B., ALTINTAN D., Project Supported by Higher

Education Institutions, Protein protein etkileşim ağlarında yaklaşık stokastik simülasyon algoritmaları, 2020 - 2023

Purutçuoğlu V., TÜBİTAK Project, İnsan-Makine Uygulamalarında Kullanılacak Fizyolojik İnsan Verileri İçin Temel Alt-Yapısal Yazılım, 2018 - 2022

Purutçuoğlu V., Beycioğlu A., TÜBİTAK Project, Mühendislik Alanında PROje Eğitimi 2 (MAPRE-2), 2021 - 2021

Purutçuoğlu V., Akbaş O., Company, Sağlıklı Yetişkinlerde COVID-19'un Önlenmesi için Geliştirilmiş Vahşi Tip SARS-CoV-2 veya Alfa Varyantı Spike içeren Virüs Benzeri Parçacık (VLP) Aşısı ile bunların kombinasyonunun Güvenliliği, Etkililiği ve İmmünojenitesinin Değerlendirildiği Randomize, Çift Kör Paralel dozlamalı, Faz II Çalışma (SAVE Çalışması)", 2021 - 2021

Purutçuoğlu V., Akbaş O., Company, SARS-CoV-2'ye Karşı Geliştirilmiş Adjuvanlı İnaktif Koruyucu Aşının Sağlıklı Gönüllülerde İki Farklı Dozda Subkutan Yoldan İki Kez Uygulamasının Güvenlilik ve Etkililiğinin İncelendiği Faz I Çalışması, 2021 - 2021

Purutçuoğlu V., Akbaş O., Company, SARS-CoV-2'ye karşı geliştirilmiş koruyucu VLP aşısının sağlıklı gönüllülerde iki farklı dozajda subkutan yoldan iki kez uygulamasının insanlardaki temel farmakodinamik, farmakolojik ve toksikolojik etkilerinin incelendiği Faz I çalışması, 2021 - 2021

Purutçuoğlu Gazi V., TÜBİTAK - AB COST Project, European network for statistical network science, 2016 - 2020

Purutçuoğlu Gazi V., Beycioğlu A., TÜBİTAK Project, Mühendislik alanında proje eğitimi, 2019 - 2019

PURUTÇUOĞLU V., BAHÇİVANCİ B., KARAKELLE B. S., Purutçuoğlu E., AĞYÜZ U., ÜRÜN Y., Project Supported by Higher Education Institutions, Rahim ağzı kanseriyle ilişkili genetik bilgilerin toplanması, analizi ve risk faktörleriyle beraber modellenmesi, 2017 - 2019

PURUTÇUOĞLU V., AĞRAZ M., Project Supported by Higher Education Institutions, Gaussian grafiksel modelinin ve lasso regresyonuna dayalı grafiksel modelinin uyarlanmış en çok olabilirlik metoduyla model parametre tahmini, 2017 - 2019

Purutçuoğlu Gazi V., TÜBİTAK Project, Biyolojik ağların Gaussian grafiksel modellerle tahmininde kopulaların uygulanması ve parametre tahmini, 2015 - 2017

Şeker T., Purutçuoğlu Gazi V., TÜBİTAK Project, Biyolojik Ağların Gaussian Grafiksel Modellerle Tahmininde Kopulaların Uygulanması Ve Parametre Tahmini, 2015 - 2017

PURUTÇUOĞLU V., SEÇİLMİŞ D., AKAL T., Purutçuoğlu E., ŞEKER T., AYYILDIZ E., Project Supported by Higher Education Institutions, Karmaşık biyolojik sistemlerin deterministik modellemelerinde alternatif yaklaşımlar, parametre tahmini ve kopular, 2016 - 2016

PURUTÇUOĞLU V., Tuncer G., SÜRÜN B., Yazıcı M., AYDIN SON Y., UĞUR Ö., Project Supported by Higher Education Institutions, Biyokimyasal sistemlerin stokastik simülasyon algoritmalarıyla yaratılması ve impuls içerecek şekilde genişletilmesi, 2014 - 2016

PURUTÇUOĞLU GAZİ V., TÜBİTAK Project, Dijital İçerikli Açık Ders Kaynaklarını Destekleme Programı İstatistiğe Giriş 2, 2015 - 2015

PURUTÇUOĞLU GAZİ V., TÜBİTAK Project, Tanecik filtreleme yöntemiyle biyokimyasal sistemler için stokastik model parametrelerinin tahmini, 2015 - 2015

Şeker T., Purutçuoğlu Gazi V., TÜBİTAK Project, Tanecik Filtreleme Yöntemiyle Biyokimyasal Sistemler İçin Model Parametrelerinin Tahmini TBAG 112T772, 2013 - 2015

Purutçuoğlu Gazi V., EU Framework Program Project, PATHOSYS - New Algorithms for Host Pathogen Systems Biology, 2010 - 2015

PURUTÇUOĞLU GAZİ V., TÜBİTAK Project, Meme kanserinin histolojik ve patolojik alt tiplerinin meta analiz yöntemine dayalı miRNA imzaları ile sınıflandırılması, 2012 - 2013

PURUTÇUOĞLU GAZİ V., TÜBİTAK Project, Veri Madenciliği Yöntemleri ile Türkiye İklim Bölgelerinin Yeniden Belirlenmesi ve Yağış Tahmin Modellerinin Geliştirilmesi, 2009 - 2011

Batmaz İ., Yozgatlıgil C., İyigün C., Purutçuoğlu Gazi V., Köksal G., Project Supported by Higher Education Institutions, Veri Madenciliği Yöntemleri ile Türkiye İklim Bölgelerinin Yeniden Belirlenmesi, 2010 - 2010

Other International Funding Programs, Stochastic modelling and statistical inference of gene regulatory pathways integrating multiple sources of data, 2005 - 2006

## Activities in Scientific Journals

International Journal of Industrial Engineering and Operational Research, Committee Member, 2018 - Continues  
Data Science and Applications, Advisory Committee Member, 2018 - Continues  
Journal of Biostatistics - Turkish Clinics, Advisory Committee Member, 2010 - Continues  
BMC BIOINFORMATICS, Committee Member, 2022 - 2022  
BIOMETRICS, Assistant Editor/Section Editor, 2022 - 2022  
BIOMETRICS, Assistant Editor/Section Editor, 2021 - 2021  
BIOMETRICS, Assistant Editor/Section Editor, 2021 - 2021  
BIOMETRICS, Assistant Editor/Section Editor, 2021 - 2021  
BIOMETRICS, Assistant Editor/Section Editor, 2021 - 2021

## **Memberships / Tasks in Scientific Organizations**

International Biometrics Society-Award Fund Committee, Chairman of the Board, 2022 - 2022, United States Of America  
Eastern Mediterranean Region of the International Biometric Society, Country Representative, 2021 - 2022, United States Of America  
International Biometrics Society, Executive Board Member, 2020 - 2022, United States Of America  
International Biometrics Society, Country Representative, 2020 - 2021, United States Of America  
International Biometric Society, Awards Fund Committee Member, Member of Science Committee, 2016 - 2019

## **Scientific Refereeing**

BIOMEDICAL SIGNAL PROCESSING AND CONTROL, SCI Journal, December 2022  
JOURNAL OF INDUSTRIAL AND MANAGEMENT OPTIMIZATION, SCI Journal, December 2022  
TUBITAK Project, 1003 - Priority Areas R&D Projects Support Program, Middle East Technical University, Turkey, December 2022  
TUBITAK Project, 1003 - Priority Areas R&D Projects Support Program, Middle East Technical University, Turkey, December 2022  
BMC BIOINFORMATICS, SCI Journal, November 2022  
BIOMEDICAL SIGNAL PROCESSING AND CONTROL, SCI Journal, November 2022  
BIOMEDICAL SIGNAL PROCESSING AND CONTROL, SCI Journal, November 2022  
BIOMETRICS, SCI Journal, November 2022  
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Middle East Technical University, Turkey, November 2022  
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Middle East Technical University, Turkey, November 2022  
JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS, SCI Journal, October 2022  
FRONTIERS IN PSYCHOLOGY, National Scientific Refreed Journal, October 2022  
TUBITAK Project, 1002 - Quick Support Program, Middle East Technical University, Turkey, October 2022  
TUBITAK Project, 1002 - Quick Support Program, Middle East Technical University, Turkey, October 2022  
BMC BIOINFORMATICS, SCI Journal, September 2022  
BMC BIOINFORMATICS, National Scientific Refreed Journal, August 2022  
BIOMETRICS, SCI Journal, July 2022  
Project Supported by Higher Education Institutions, BAP Research Project, Yildiz Technical University, Turkey, July 2022  
Project Supported by Higher Education Institutions, BAP Research Project, Yildiz Technical University, Turkey, July 2022  
BIOMETRICS, SCI Journal, May 2022  
BIOMEDICAL SIGNAL PROCESSING AND CONTROL, SCI Journal, May 2022  
ANNALS OF OPERATIONS RESEARCH, SCI Journal, April 2022  
JOURNAL OF DYNAMICS AND GAMES, Journal Indexed in ESCI, April 2022  
JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS, SCI Journal, March 2022

BIOMETRICS, SCI Journal, March 2022

JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS, SCI Journal, March 2022

TUBITAK Project, 1002 - Quick Support Program, Middle East Technical University, Turkey, March 2022

BMC GENOMICS, SCI Journal, February 2022

TUBITAK Project, 2236 - Program for Supporting International Researchers, Middle East Technical University, Turkey, February 2022

SCIENTIFIC REPORTS, SCI Journal, December 2021

BIOMETRICS, SCI Journal, December 2021

TUBITAK Project, 1002 - Quick Support Program, THE SCIENTIFIC AND TECHNOLOGICAL RESEARCH COUNCIL OF TÜRKİYE, Turkey, December 2021

BMC BIOINFORMATICS, SCI Journal, November 2021

BMC GENOMICS, SCI Journal, November 2021

BIOMETRICS, SCI Journal, November 2021

JOURNAL OF APPLIED STATISTICS, SCI Journal, October 2021

TURKISH JOURNAL OF MATHEMATICS, SCI Journal, October 2021

TURKISH JOURNAL OF MATHEMATICS, SCI Journal, October 2021

JOURNAL OF DYNAMICS AND GAMES, Journal Indexed in ESCI, October 2021

AN INTERNATIONAL JOURNAL OF OPTIMIZATION AND CONTROL: THEORIES & APPLICATIONS (IJOCTA), Journal Indexed in ESCI, September 2021

BIOMETRICS, SCI Journal, August 2021

JOURNAL OF APPLIED STATISTICS, SCI Journal, August 2021

BMC BIOINFORMATICS, SCI Journal, August 2021

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, August 2021

BIOMETRICS, SCI Journal, July 2021

Project Supported by Higher Education Institutions, BAP Research Project, Yildiz Technical University, Turkey, July 2021

OPEN CHEMISTRY, SCI Journal, June 2021

BIOMETRICS, SCI Journal, June 2021

Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Türkiye Sağlık Enstitüleri Başkanlığı, Turkey, June 2021

COMMUNICATIONS IN STATISTICS -THEORY AND METHODS, SCI Journal, May 2021

AN INTERNATIONAL JOURNAL OF OPTIMIZATION AND CONTROL: THEORIES & APPLICATIONS (IJOCTA), Journal Indexed in ESCI, May 2021

JOURNAL OF DYNAMICS AND GAMES, Journal Indexed in ESCI, May 2021

BIOMETRICS, SCI Journal, April 2021

Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, National Scientific Refreed Journal, March 2021

JOURNAL OF INDUSTRIAL AND MANAGEMENT OPTIMIZATION, SCI Journal, February 2021

Türkiye Klinikleri Biyoistatistik Dergisi, National Scientific Refreed Journal, December 2020

JOURNAL OF INDUSTRIAL AND MANAGEMENT OPTIMIZATION, SCI Journal, December 2020

Foundations of Computing and Decision Sciences, Other Indexed Journal, November 2020

COMMUNICATIONS IN STATISTICS-THEORY AND METHODS, SCI Journal, November 2020

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, SCI Journal, November 2020

BIOMETRICS, SCI Journal, November 2020

Communications Faculty of Sciences University of Ankara Series A1-Mathematics and Statistics , Journal Indexed in ESCI, November 2020

Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Health Institutes of Turkey, Turkey, November 2020

Türkiye Klinikleri Biyoistatistik Dergisi, National Scientific Refreed Journal, September 2020

ANNALS OF OPERATIONS RESEARCH, SCI Journal, August 2020

Türkiye Klinikleri Biyoistatistik Dergisi, National Scientific Refreed Journal, August 2020

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, SCI Journal, July 2020



Türkiye Klinikleri Biyoistatistik Dergisi, National Scientific Refreed Journal, June 2020  
KAHRAMANMARAŞ SÜTÇÜ İMAM ÜNİVERSİTESİ TARIM VE DOĞA DERGİSİ, Other Journals, May 2020  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, SCI Journal, May 2020  
EXPERT SYSTEMS WITH APPLICATIONS, SCI Journal, May 2020  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, SCI Journal, April 2020  
COMMUNICATIONS IN STATISTICS-THEORY AND METHODS, SCI Journal, March 2020  
ANNALS OF OPERATIONS RESEARCH, SCI Journal, March 2020  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, SCI Journal, March 2020  
JOURNAL OF THE ROYAL STATISTICAL SOCIETY SERIES C-APPLIED STATISTICS, SCI Journal, February 2020  
TUBITAK Project, 1002 - Quick Support Program, The Scientific and Research Council of Turkey, Turkey, February 2020  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, SCI Journal, January 2020  
Türkiye Klinikleri Biyoistatistik Dergisi, National Scientific Refreed Journal, January 2020  
JOURNAL OF APPLIED STATISTICS, SCI Journal, January 2020  
ANNALS OF OPERATIONS RESEARCH, SCI Journal, January 2020  
OPEN CHEMISTRY, SCI Journal, December 2019  
Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Middle East Technical University, Turkey, December 2019  
Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Middle East Technical University, Turkey, December 2019  
Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Middle East Technical University, Turkey, December 2019  
Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Middle East Technical University, Turkey, December 2019  
Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Middle East Technical University, Turkey, December 2019  
Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Middle East Technical University, Turkey, December 2019  
Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Middle East Technical University, Turkey, December 2019  
TUBITAK Project, 2223 - Domestic Scientific Activities Support Program, Middle East Technical University, Turkey, December 2019  
Journal of Modern Applied Statistical Methods, Other Indexed Journal, November 2019  
Türkiye Klinikleri Biyoistatistik Dergisi, National Scientific Refreed Journal, November 2019  
BMC BIOINFORMATICS, SCI Journal, September 2019  
Türkiye Klinikleri Biyoistatistik Dergisi, National Scientific Refreed Journal, September 2019  
Communications Faculty of Sciences University of Ankara Series A1 Mathematics and Statistics, Other Indexed Journal, July 2019  
BMC BIOINFORMATICS, SCI Journal, July 2019  
Communications Faculty of Sciences University of Ankara Series A1 Mathematics and Statistics, Other Indexed Journal, June 2019  
OPEN CHEMISTRY, SCI Journal, June 2019  
CENTRAL EUROPEAN JOURNAL OF OPERATIONS RESEARCH, SCI Journal, June 2019  
Communications Faculty of Sciences University of Ankara Series A1 Mathematics and Statistics, Other Indexed Journal, June 2019  
OPEN CHEMISTRY, SCI Journal, May 2019  
OPEN CHEMISTRY, SCI Journal, May 2019  
BMC BIOINFORMATICS, SCI Journal, May 2019  
CENTRAL EUROPEAN JOURNAL OF OPERATIONS RESEARCH, National Scientific Refreed Journal, May 2019  
Transactions on Fuzzy Systems, Other Indexed Journal, May 2019  
Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, April 2019

International Journal of Statistics and Probability, Other Indexed Journal, March 2019  
JOURNAL OF THE ROYAL STATISTICAL SOCIETY SERIES C-APPLIED STATISTICS, SCI Journal, March 2019  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, Journal Indexed in SCI-E, March 2019  
International Journal of Machine Learning and Cybernetics, Other Indexed Journal, March 2019  
Türkiye Klinikleri Biyoistatistik Dergisi, National Scientific Refreed Journal, February 2019  
CENTRAL EUROPEAN JOURNAL OF OPERATIONS RESEARCH, SCI Journal, February 2019  
Journal of Biostatistics-Turkish Clinics, Other Indexed Journal, February 2019  
Fundamental Journal of Mathematics and Applications, Other Indexed Journal, January 2019  
CENTRAL EUROPEAN JOURNAL OF OPERATIONS RESEARCH, National Scientific Refreed Journal, January 2019  
OPEN CHEMISTRY, SCI Journal, December 2018  
Fundamental Journal of Mathematics and Applications, Other Indexed Journal, December 2018  
Project Supported by Other Official Institutions, Orta Doğu Teknik Üniversitesi, Turkey, December 2018  
International Journal of Statistics and Probability, Other Indexed Journal, November 2018  
Fundamental Journal of Mathematics and Applications, Other Indexed Journal, November 2018  
TUBITAK Project, 1002 - Quick Support Program, Orta Doğu Teknik Üniversitesi, Turkey, November 2018  
Türkiye Klinikleri Biyoistatistik Dergisi, National Scientific Refreed Journal, October 2018  
International Journal of Statistics and Probability, Other Indexed Journal, October 2018  
The International Symposium on Health Informatics and Bioinformatics, Conference Paper (Full Text), August 2018  
The International Symposium on Health Informatics and Bioinformatics, Conference Paper (Full Text), August 2018  
The International Symposium on Health Informatics and Bioinformatics, Conference Paper (Full Text), August 2018  
Cogent Mathematics and Statistics, Other Indexed Journal, August 2018  
The International Symposium on Health Informatics and Bioinformatics, Conference Paper (Full Text), August 2018  
The International Symposium on Health Informatics and Bioinformatics, Conference Paper (Full Text), August 2018  
The 4th International Conference on Fuzzy Systems and Data Mining, Conference Paper (Full Text), July 2018  
Characterization of coding and noncoding RNA interactions through topological descriptors, Conference Paper (Full Text), July 2018  
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Orta Doğu Teknik Üniversitesi, Turkey, July 2018  
TUBITAK Project, 1005 - National New Ideas and Products Research Support Program, Orta Doğu Teknik Üniversitesi, Turkey, July 2018  
TUBITAK Project, 1005 - National New Ideas and Products Research Support Program, Orta Doğu Teknik Üniversitesi, Turkey, July 2018  
Journal of Scientific Research and Reports, Other Indexed Journal, June 2018  
International Journal of Statistics and Probability, Other Indexed Journal, June 2018  
Project Supported by Other Official Institutions, Orta Doğu Teknik Üniversitesi, Turkey, June 2018  
journal of Biostatistics-Turkish Clinics, Other Indexed Journal, May 2018  
Cogent Mathematics and Statistics, Other Indexed Journal, April 2018  
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, SCI Journal, April 2018  
International Journal of Statistics and Probability, Other Indexed Journal, March 2018  
TUBITAK Project, 1002 - Quick Support Program, Orta Doğu Teknik Üniversitesi, Turkey, March 2018  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, Journal Indexed in SCI-E, February 2018  
International Journal of Statistics and Probability, Other Indexed Journal, February 2018  
OPEN CHEMISTRY, SCI Journal, February 2018  
PeerJ, Other Indexed Journal, February 2018  
Journal of Biostatistics-Turkish Clinics, Other Indexed Journal, January 2018  
Archives of Current Research International, Other Indexed Journal, January 2018  
Journal Of Biostatistics-Turkish Clinics, Other Indexed Journal, January 2018

## **Scientific Consultations**

Monitor Medikal Arařtırma ve Danıřmanlık Őirketi, Scientific Consultancy, Middle East Technical University, Faculty of Arts and Sciences, Department of Statistics, Turkey, 2022 - 2022

## **Tasks In Event Organizations**

Purutuođlu Gazi V., 15th International Conference on Computational Intelligence methods for Bioinformatics and Biostatistics , Scientific Congress, Portugal, Eylul 2018

## **Metrics**

Publication: 225

Citation (WoS): 160

Citation (Scopus): 177

H-Index (WoS): 6

H-Index (Scopus): 6

## **Congress and Symposium Activities**

XII Symposium of Polish Bioinformatics Society , Invited Speaker, Krakow, Poland, 2019

COSTNET Meeting, Working Group, Warszawa, Poland, 2018

## **Non Academic Experience**

International Biometric Society (IBS)

METU

International Biometric Society (IBS)

International Biometric Society (IBS)

International Biometric Society (IBS)

International Biometric Society (IBS)

Groningen University

University of Groningen

METU

Lancaster University

METU

Glasgow University

METU