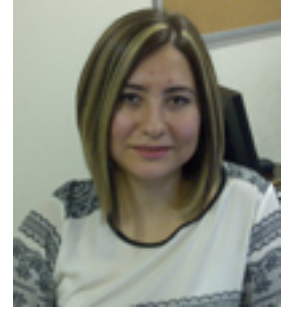


## Curriculum Vitae

1. **Name Surname:** Süreyya Özögür-Akyüz
2. **Date of Birth:** 25.01.1982
3. **Title:** Assoc. Prof. Dr. (awarded by Turkish University Board on 4<sup>th</sup> April, 2016)
4. **Education:**



Degree	Subject	University	Year
Bachelor	Mathematics	Middle East Technical University	2002
Master of Science	Institute of Applied Mathematics/Dept. of Scientific Computing	Middle East Technical University	2005
<b>MSc Thesis:</b> “Mathematical Modeling of Enzymatic Reactions, Simulation and Parameter Estimation”, <b>Supervisors:</b> Prof. Dr. Bülent Karasözen, Prof. Dr. Gerhard Wilhelm Weber (co-supervisor)			
Ph.D.	Institute of Applied Mathematics/Dept. of Scientific Computing	Middle East Technical University	2009
<b>Ph.D. Thesis:</b> “A Mathematical Contribution of Statistical Learning And Continuous Optimization Using Infinite And Semi-Infinite Programming To Computational Statistics” <b>Supervisors:</b> Prof. Dr. Gerhard Wilhelm Weber (METU, TR), Prof. Dr. John Shawe-Taylor (UCL, UK)			

**Research Interests:** Computational Statistics, Machine Learning, Numerical Optimization, Semi-infinite Optimization, Facial Expression Classification, Ensemble Pruning, Kernel Learning, Computational Biology, Biomedical Applications in Artificial Intelligence.

### Experience:

Head of Department of Mathematics June 2018 -	<b>Bahçesehir University</b> /Faculty of Engineering and Natural Sciences/Department of Mathematics
Assoc. Prof. Dr. May, 2017 – June 2018	<b>Bahçesehir University</b> /Faculty of Engineering and Natural Sciences /Biomedical Engineering
Assistant Prof. Dr. 2015-2017	<b>Bahçesehir University</b> /Faculty of Engineering and Natural Sciences /Biomedical Engineering
Assistant Prof. Dr. 2013-2015	<b>Bahçesehir University</b> /Science Faculty/Mathematics and Computer Science Dept.
Marie Curie Research Fellow 2011-2013	<b>University of Surrey</b> , Faculty of Engineering Science, Centre For Vision Statistical and Signal Processing (CVSSP), Surrey, UK
Visiting Scientist DAAD July 1 –August 30, 2010	<b>Fraunhofer Institute SCAI</b> , Bioinformatics Bonn, Germany.
Assist. Prof. Dr. 2009-2011	<b>Bahçesehir University</b> /Science Faculty/Mathematics and Computer Science Dept.

Researcher 2007-2009	<b>Sabanci University/</b> Faculty of Engineering and Natural Sciences / ( <b>Vision and Pattern Analysis LAB</b> )
Research Assistant 2002-2007	<b>Middle East Technical University/</b> Institute of Applied Mathematics
Visiting Research Fellow of PASCAL EU 6 <sup>th</sup> Framework 2006 May-2007 Feb (9 months)	<b>University College London/Computer Science,</b> supervised by John Shawe-Taylor during Ph.D.

## Projects:

**H1. Project Title: (March 2019- 01 Sep 2022 TUBİTAK 1001 119E100)** Pruning the Layers of Deep Neural Networks with Sparse Second-Order Conic Programming

**Role in the Project: Principal Investigator**

**Keywords:** Deep Neural Networks, Ensemble Pruning, Second-Order Conic Programming, Mathematical Modeling, Optimization

**Funded by: Scientific and Technological Research Council of Turkey (TUBITAK) in Scientific and Technological Research Projects Funding Program (ARDEB) 1001**

**Project Total Budget:** 384.428 TL

**H2. Project Title: (June 2018 – December 2020 TUBİTAK 1001 117E812)** Predicting the Diet Treatment of Obesity Disease Through Brain Electric Activity Alterations by Developing an Artificial Intelligence Algorithm

**Role in the Project: Principal Investigator**

**Keywords:** Machine Learning, Artificial Intelligence, Obesity, EEG, neuroscience

**Funded by: TUBITAK ARDEB 1001**

**Project Total Budget:** 535.096 TL

**H3. Project Title: (2017-2019) TUBİTAK 3501 116E064,** Ensemble Clustering Selection by Optimization of Accuracy-Diversity Trade-off

**Role in the Project: Principal Investigator**

**Keywords:** Machine Learning, Clustering, Optimization, Ensemble Learning, Ensemble Pruning

**Funded by: TUBITAK Career Development Program 3501**

**Project Total Budget:** 207.320,00 TL

**H4 Project Title: (2010-2014), EU7 SICA Collaborative Project** (small or medium-scale focused research project) with focus on Eastern Europe and Central Asia (<http://www.syspatho.eu/index.html>)

**Role in the Project: Principal Investigator (Partner)**

**Project Subject:** New Algorithms for Host-Pathogen Systems Biology / Bioinformatics

**Funded by:** EU 7<sup>th</sup> Framework

## Project Partners

1. University of Heidelberg (UHEL), Germany,
2. University Hospital Heidelberg (UKL-HD), Germany
3. Institute National de la Sante et de la Recherche Medicale (INSERM), France
4. Institute of Cytology and Genetics of the Siberian Branch of the Russian Academy of Sciences (ICG), Russia
5. St. Petersburg State Polytechnical University (SPBSPU), Russia
6. Middle East Technical University (METU), Turkey
7. Bahcesehir University (BU), Turkey- yürütücü S. Özögür-Akyüz
8. PBSOFT LLC (PBSOFT), Russia
9. NovaMechanics Ltd. (NovaMechanics), Cyprus
10. ORT Braude College (OBD), Israel
11. University of Technology Dresden (TUD), Germany

**Project Total Budget:** 3 Million Euro

**H5. Project Title:** (2011-2013) **EU7 Marie Curie Intra European Fellowship**, Mathematical Modelling of Ensemble Classifier Systems Via Optimization of Divergence-Accuracy Trade off

**Role in the Project:** Research Fellow

**Keywords:** Error Correcting Output Codes, Pruning, Multi-class Classification, Optimization

**Funded by:** EU 7<sup>th</sup> Framework, Marie Curie Fellowship

**Host University:** University of Surrey, UK

**Principal Investigator:** Dr. Terry Windeatt, University of Surrey, UK

**Project Total Budget:** 183.000 Euro

**H6. Project Title: (August 2007- September 2009) SPICE- *Fraud Detection*** by data mining and machine learning techniques and optimization

**Role in the Project:** Research Fellow, supervised by Prof. Dr. Aytül Erçil

**Funded by:** EU 6<sup>th</sup> Network of Excellence

**University:** Computer Vision and Pattern Analysis Lab (VPA lab), / Faculty of Engineering and Natural Sciences, Sabancı University, İstanbul, Turkey

## Grants and Awards

1. **PASCAL funding** granted by EU Network of Excellence Project of 6<sup>th</sup> framework given for long term visit to University College London (UCL), UK, Department of Computer Science, University supervised by Prof. John Shawe-Taylor, 2006 - 2007.
2. **DAAD Scholarship** (German Academic Exchange Service) to visit Fraunhofer Institute Dept. of Bioinformatics, supervised by Prof. Martin Hofmann Apitius as a visiting professor, June 1- August 30, 2010.
3. **Marie Curie Intra European Fellowship, EU7th Framework, 2010.**
4. **Microsoft Imagine Cup** came **third** in Turkey in Software Development category she was the mentor of the undergrad students Ünal Akyüz, Gizem Aktürk, Onur Yazici, Okan Kiliç 2010.
5. **Ph.D. Thesis** award as being listed in the shortlist of first three in EURO 24<sup>th</sup> International Conference on **Operational Research**, Lisbon, Portugal, 2010.
6. **Microsoft Imagine Cup** came **first** in Turkey in Software Development category she was the mentor of the undergrad students Ünal Akyüz, Gizem Aktürk, Onur Yazici, Okan Kiliç, 2011.

7. **Microsoft Imagine Cup Grants 2011** in the first 15 shortlist worldwide on business planning with the project in 2011.

#### **Thesis Supervised:**

##### **Master of Science**

1. Gülnur Şahin (2012), Maximum Margin Multiple Kernel Clustering By Semi-infinite Programming, Bahçeşehir University, Department of Mathematics, (supervisor).
2. İrem Karaduman (2012), Reconstruction of Signalling Pathways by Novel Graph Theoretical Approach, Bahcesehir University, Department of Mathematics (supervisor).
3. Deniz Topuz (2014), Topics in Machine Learning and Data Mining, Bahçeşehir University, Department of Mathematics (co-supervisor).
4. Buse Çisil Otur (2018), Ensemble Pruning by DC Programming, Bahçeşehir University, Industrial Engineering (supervisor).
5. Büşra Ekşi (2019) Classification of EEG Signals for a Given Creativity Task Using Machine Learning Techniques, Computer Engineering (supervisor)
6. Ceylan Demir (2019) Ensemble Based Feature Selection with Hybrid Model, ITU Mathematics Engineering, (co-supervisor).
7. Koray Yılmaz (2020), Sales Prediction in the Fast-Food Sector Using Time Series Data, Bahçeşehir Üniversitesi, Computer Engineering (supervisor).
8. Ender Akpınar (2020), Support Vector Boosting, A Large Scale Parallel SVM Approximation, Bahçeşehir University, Computer Engineering (supervisor).

##### **Ph.D.**

1. Pınar Karadayı Ataş (2020) Ensemble Pruning Using Optimization Modeling, Bahçeşehir University, Computer Engineering (supervisor).
2. Duygu Üçüncü (2018- ongoing), ), Convergence Analysis of NonConvex Optimization models in Machine Learning, Yıldız Technical University, Department of Mathematics (co-supervisor).
3. Muhammad Ammar Ali (2018- ongoing), Developing a Machine Learning Algorithm to Predict Weight Gain of Obesity Disease Through EEG Recording, Bahçeşehir University, Computer Engineering (supervisor).
4. Ceylan Demir, (2019- ongoing) Developing Fuzzy and Sparse Models for Deep Learning Architectures, Bahcesehir University, Computer Engineering (supervisor).
5. Buse Çisil Otur (2020 – ongoing), Autoselection of Deep Learning Architecture by Second-Order Conic Sparse Models, Bahcesehir University, Industrial Engineering (supervisor).

#### **A. Articles published in international refereed journals (SCI & SSCI & Arts and Humanities)**

1. Akyüz, A., T. Yurdun, Z. Pelin, S. Özögür and O. Ercan, Serum Copper and Zinc Status in Obstructive Sleep Apnea Patients, Journal of Sleep Research, published on behalf of the European Sleep Research Society September 2006- Vol. 15 Issue s1 Page v-281. (Abstract Published in Refereed Journal).
2. G.-W. Weber, P. Taylan, Z. Alparslan-Gök, S. Özögür-Akyüz and B. Akteke-Öztürk, Optimization of gene-environment networks in the presence of errors and uncertainty with Chebychev approximation, in TOP, the Operational Research journal of SEIO (Spanish Statistics and Operations Research Society) 16, 2 (2008) 284-318.
3. S. Özögür, J. Shawe-Taylor, G.-W. Weber and Z.B. Ögel, Pattern Analysis for the Prediction of Eukaryotic Pro-peptide Cleavage Sites, Discrete Applied Mathematics (DAM), Volume 157, Issue 10, 28 May 2009, pp. 2388-2394.
4. G.-W. Weber, S. Özögür -Akyüz and E. Kropat, A review on data mining and continuous optimization applications in computational biology and medicine, in Embryo Today, Birth Defects Research (Part C) 87 (2009) pp.165-181.
5. S. Özögür-Akyüz, and G.-W. Weber, Infinite Kernel Learning via infinite and semi-infinite programming, in the special issue of OMS (Optimization Methods and Software), Volume 25 Issue 6, pp. 937-970, 2010.

6. S. Özögür-Akyüz, and G.-W. Weber, On Numerical Optimization theory of Infinite Kernel Learning, *Journal of Global Optimization*, 48, Issue 2 (2010), Page 215 -239, 2010.
7. G. Üstünkar, S. Özögür-Akyüz, G.-W. Weber, Y. Aydın Son, C. M. Friedrich, Selection of Representative SNP Sets for Genome-Wide Association Studies: A Metaheuristic Approach, *Optimization Letters*, 6, pp: 1207–1218, 2012.
8. Akyüz A, Karsli Ceppioğlu S, Yurdun T, Pelin Z, Akyüz S. Serum Copper and Zinc Status In Obstructive Sleep Apnea Patients. *Turk J Pharm Sci* 2013; 10:415-424.
9. Özögür-Akyüz, S, Windeatt, T., Smith, R., Pruning of Error Correcting Output Code by Optimization of Accuracy-Diversity Trade off, *Machine Learning*, Volume 101, Issue 1 (2015), pp: 253-269.
10. Özögür-Akyüz, S., Üstünkar, G., Weber, G.-W., Infinite Kernel Learning by Multi-Local Algorithm, in *International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI)*, Vol. 30, No. 4 (2016) 1651004 (21 pages) .
11. M. A. Ali, D. Üçüncü, P. Karadayı Ataş, S. Özögür Akyüz, Classification of Motor Imagery Task by Using Novel Ensemble Pruning Approach, *IEEE Transactions on Fuzzy Systems*, *IEEE Transactions on Fuzzy Systems*, 2020, 28(1), pp. 85–91.
12. S. Özögür-Akyüz, P. Karadayı Ataş, B. Çisil Otar, Ensemble Cluster Pruning by Convex Concave Programming, *Computational Intelligence*, 2020, 36(1), pp. 297–319.
13. B. Eygi Erdoğan, S. Özögür-Akyüz, P. Karadayı Ataş, A Novel Approach for Panel Data: An Ensemble of Weighted Functional Margin SVM Models, "Business Analytics Emerging Trends and Challenges" in *Information Sciences*, 557, pp. 373–381, 2021.
14. Ali, M. A., Özögür-Akyüz, S., Duru, A. D., Caliskan, M., Demir, C., Bostancı, T., Elsallak, F., Shkokani, M., Dokur, Z., Ölmez, T., Ergün, C., Bebek, N., Yilmaz, G., Neurological effects of long-term diet on obese and overweight individuals: An EEG and ERP study, **accepted** to *Computational Intelligence*, 2021.
15. S. Özögür-Akyüz, B. Eygi Erdogan, O. Yıldız, A Hybrid House Price Prediction Model: Turkish Regional Case Study, **under review in** *Computational Economics*, 2021.

## **B. Articles Presented at International Scientific Meetings and Published in Proceedings**

1. S. Özögür, A.G. Sağdıçoğlu Celep, B. Karasözen, N. Yıldırım and G.-W. Weber, Dynamical modelling of enzymatic reactions, simulation and parameter estimation with genetic algorithms. In: HIBIT proceedings of International Symposium on Health Informatics and Bioinformatics, Turkey'05, Antalya, Turkey, November 2005, pp. 78–84.
2. S. Özögür, G.-W. Weber and J. Shawe-Taylor, Biological Data Mining by Using SVM and Pattern Analysis, in EURO XXI, 21st European Conference on Operational Research, Iceland, 2-5 July 2006, pp. 49 (abstract).
3. A. Akyüz, T. Yurdun, Z. Pelin, S. Özögür and O. Ercan, Serum Copper and Zinc Status in Obstructive Sleep Apnea Patients, (poster) in 8th Congress of the European Sleep Research Society, Innsbruck, Austria, September 12-16, 2006.
4. A. Akyüz, T. Yurdun, Z. Pelin and S. Özögür, Serum Zinc and Copper Level Determination in Obstructive Sleep Apnea Patients, in 6<sup>th</sup> IC-TST; 6<sup>th</sup> International Congress of Turkish Society of Toxicology "Chemical Safety and Toxicology", Antalya, Turkey, 2-5 November, 2006, pp. 140 (abstract).
5. S. Özögür, Z. Hussain, and J. Shawe-Taylor, Model Selection via Test Margin, in EURO XXII European Conference on Operational Research, Prague, July, 2007, pp. 236 (abstract).
6. S. Özögür-Akyüz and G.-W. Weber, Learning with Infinitely Many Kernels via Semi-infinite Programming, In *ISI Proceedings of Euro Mini Conference on Continuous Optimization and Knowledge Based Technologies*, ISBN: 978-9955-28-283-9, Vilnius Gediminas Technical University Publishing House "Technika", 2008, pp. 342- 348.
7. S. Özögür-Akyüz and G.-W. Weber, Infinite kernel learning by infinite and semi-infinite programming, *Proceedings of the Second Global Conference on Power Control and Optimization*, AIP Conference Proceedings 1159, Conference Location and Date: Bali, Indonesia, 1-3 June 2009, Subseries: Mathematical and Statistical Physics; ISBN 978-0-7354-0696-4 (August 2009) 306-313; A.H. Hakim, P. Vasant and N. Barsoum, guest eds.

8. S. Özögür-Akyüz and T. Windeatt, On New Model Selection Methods for Error Correcting Output Codes (ECOC), in 23rd European Conference on Operational Research, in session “Multi-View Learning in Machine Learning”, Bonn, Germany, July 5-8, 2009, pp. 275 (abstract).
9. S. Özögür-Akyüz, A.Ö. Argunşah, A. Akyüz and T. Windeatt, Sleep Stage Classification using ECOC, (poster) in 4<sup>th</sup> International Symposium on Health Informatics and Bioinformatics (HIBIT), Ankara, Turkey, April 16-17, 2009.
10. B. Kaymakoglu, A. Akyüz, S. Özögür-Akyüz, N. Baykal and F. Özgen, Data Mining and Knowledge Discovery studies in psychophysiological and paradoxical sleep apnea patients, in 23<sup>rd</sup> European Conference on Operational Research, in session “Data Mining and Healthcare Informatics”, Bonn, Germany, July 5-8, 2009, pp. 298 (abstract).
11. Unay, D., Soldea, O., Ozogur-Akyuz, S., Cetin, M., Ercil, A., “Medical Image Retrieval and Automatic Annotation: VPA-SABANCI at ImageCLEF 2009”, Proc. of Cross-Language Evaluation Forum (CLEF) Workshop in conjunction with ECDL’09, Corfu - Greece, 2009.
12. G. Üstünkar, S. Özögür-Akyüz, U. Sezerman, G.-W. Weber and N. Baykal, Application of Advanced Machine Learning Methods For SNP Discovery in Complex Disease Association Studies, in Proceedings of International Congress on Computational and Applied Mathematics (ICCAM), Antalya, September 2009 (abstract).
13. G. Üstünkar, S. Özögür -Akyüz and G.-W. Weber, SNP-Complex Disease Association by Simulated Annealing Approach, extended abstract, 8th International Conference on Optimization: Techniques and Applications (ICOTA8), Shanghai, China, December 10-13, 2010.
14. U. Akyüz, O. Yazici, O. Kilic, G. Akturk, E. Mert, B. Uzunlu, B. Ozturk, S. Ozogur-Akyuz, Online web based solution for environmental sustainable development, In Proceedings of 24<sup>th</sup> European Conference on Operational Research (EURO XXI), pp 14, 2010. (abstract). (abstract).
15. G. Üstünkar, S. Özögür-Akyüz, G.W-Weber, N. Baykal, Application of advanced machine learning methods for tag snp selection in complex disease association studies, In Proceedings of 24<sup>th</sup> European Conference on Operational Research (EURO XXI), pp 35, 2010.
16. S. Özögür-Akyüz, G.W.-Weber, Adapted Infinite Kernel Learning by Multi-Local Algorithm, In Proceedings of 24<sup>th</sup> European Conference on Operational Research (EURO XXI), pp. 78, 2010(abstract).
17. G. Ustünkar, S. Özögür- Akyüz, G.-W. Weber and Y.A. Aydin Son, Analysis of SNP-complex disease association by a novel feature selection method, in Operations Research Proceedings 2010, Selected Papers of the Annual International Conference of the German Operation Research Society, B. Hu, K. Morasch, S. Pickl and M. Siegle, eds., Springer, Berlin, Heidelberg, 2011, 21-26.
18. S. Özögür-Akyüz, A. Kaygun, İ. Karaduman, A novel graph theoretical approach for reconstruction of signalling pathways by genetic algorithm, In Proceedings of European Chapter on Combinatorial Optimization ECCO 2012, pp.6, Antalya, 2012. (abstract).
19. S. Özögür-Akyüz, T. Windeatt, Ensemble Pruning via DC Programming, R. Smith, In Proceedings of 24<sup>th</sup> European Conference on Operational Research (EURO XXV), pp149, Vilnius, Lithuania, 2012.
20. S. Akyüz, T. Windeatt, S. Raymond, Pruning Error Correcting Output Code (ECOC) by Using Optimization, International Conference on Machine Learning (ICML), Workshop on Optimization in Machine Learning, poster presentation, 2012 (poster).
21. S. Özögür-Akyüz, T. Windeatt, Learning Weights of Multiple Kernels by Genetic Algorithm: integrated with ECOC, EURO, INFORMS 26<sup>th</sup> Conference on Operational Research, pp. 27, Rome, Italy, 2013. (abstract).
22. S. Özögür-Akyüz, G. Seichanouglu, Maximum Margin Multiple Kernel Clustering by Semi-infinite Optimization, 20<sup>th</sup> Conference of the International Federation of Operational Research Societies (IFORS), Barcelona, 2014. (abstract).
23. S.Özögür-Akyüz, Ensemble Clustering Selection by Optimization of Accuracy-Diversity Trade-off, In Proceedings of 28<sup>th</sup> European Conference on Operational Research (EURO XXVIII), 2016, Poznan, Poland. (abstract).
24. B. Eygi Erdoğan, S. Özögür-Akyüz, Ensemble Learning by Two Step-Margin Based Model Selection: Case Study on Bankruptcy Data in Turkish Commercial Banks, In Proceedings of International Conference on Trends And Perspectives In Linear Statistical Inference, LINSTAT 2016, Istanbul, Turkey. (abstract).

25. S. Akyüz, Ensemble Clustering Selection with Additional Bound Constraints, In Proceedings of International Conference On Trends And Perspectives In Linear Statistical Inference, LINSTAT 2016, Istanbul, Turkey. (abstract).
26. B. Eygi Erdoğan, S. Özöğür- Akyüz, Clustered Support Vector Regression: House Price Prediction Case Study, In Proceedings of Xth International Statistics Days Conference, Giresun, Turkey, 2016. (abstract).
27. S Akyüz, Regularized ensemble pruning by optimizing accuracy diversity trade-off, Conference of the International Federation of Operational Research Societies (IFORS), Quebec, Canada, 2017. (abstract).
28. S. Akyüz, K.W. De Bock, P. Karadayi Atas, A novel ensemble pruning approach for ANN-based churn prediction ensemble models, in Abstract Proceedings of European Conference on Operations Research, EURO 2018, Valencia, Spain. (abstract).
29. K.W De Bock, P. Karadayi Atas, S. Akyüz, - Ensemble learning by disciplined convex and concave programming, in Abstract Proceedings of European Conference on Operations Research, EURO 2018, Valencia, Spain. (abstract).
30. D. Üçüncü, S. Akyüz, E. Gül, G. Wilhelm-Weber, Optimality Conditions for Sparse Quadratic Optimization Problem, H. C. Rodrigues et al. (Eds.): EngOpt 2018 Proceedings of the 6th International Conference on Engineering Optimization, pp. 766–777, **Springer, 2019**.
31. Erdogan B.E., Akyüz S.Ö. (2018) A Weighted Ensemble Learning by SVM for Longitudinal Data: Turkish Bank Bankruptcy. In: Tez M., von Rosen D. (eds) Trends and Perspectives in Linear Statistical Inference. Contributions to Statistics. **Springer, Cham**, [https://doi.org/10.1007/978-3-319-97773-7\\_67](https://doi.org/10.1007/978-3-319-97773-7_67).
32. Demir, C., Ozogur-Akyuz, S., Goksel, I, Ensemble Feature Selection for Sentiment and Semantic Analysis, in Abstract Proceedings of European Conference on Operations Research, EURO 2019, Dublin Ireland, 2019.
33. Ozogur-Akyuz, S., Karadayi Atas, P., Ensemble Feature Selection by Accuracy Diversity Trade off, in Abstract Proceedings of European Conference on Operations Research, EURO 2019, Dublin Ireland, 2019.
34. Ucuncu, D., Ali, M.A., Karadayi Atas, P., Ozogur-Akyuz, S., Novel Ensemble SVM Algorithm for Classification of Motor Imagery Task, in Abstract Proceedings of European Conference on Operations Research, EURO 2019, Dublin Ireland, 2019.
35. Caliskan, M., Erdönmez Dincer, E., Ozogur-Akyuz, S., Measurement of Spatial Quality in Public and Public Relations by Weighted Quality Measures: Case Study in Istanbul, in Abstract Proceedings of European Conference on Operations Research, EURO 2019, Dublin Ireland, 2019.
36. Ali, M.A., Ozogur-Akyuz, S., Duru, A.D., Almelek, A., Caliskan, M., Exploring Effects of Creativity Training on Default Mode Network and Attention, ELECO 2019 - 11th International Conference on Electrical and Electronics Engineering, pp. 954–958, 2019

### **C. National / international books or book chapters:**

#### **C1. National / international books:**

1. Infinite Kernel Learning by Semi-infinite Optimization: Integrated with New Model Selection Algorithm (2011), Akyüz Süreyya, LAP LAMBERT Academic Publishing, ISBN: 978-3845434988.
2. Mathematical Modelling of Enzymatic Reactions: Simulation and Parameter Estimation by Genetic Algorithm (2009), Akyüz Süreyya, VDM Verlag Dr. Müller, ISBN:978-3-639-13153-6.

## C. National / international books or book chapters:

### C2. Chapters in national/international books:

1. In Recent Advances in Statistics, Statistical learning and optimization methods in data mining (2007), Weber Gerhard Wilhelm, Taylan Pakize, Akyüz Süreyya, Öztürk Basak, Turkish Statistical Institute Press, Editör:H.Ö. Ayhan, I. Batmaz, ISBN:978-975-01606-0-8.
2. In Operations Research Proceedings 2010, Selected Papers of the Annual International Conference of the German Operations Research Society, Analysis of SNP-Complex Disease Association by a Novel Feature Selection Method) (2011), Üstünkar Gürkan, Akyüz Süreyya, Weber Gerhard Wilhelm, Aydın Son Yeşim, Springer-Verlag Berlin Heidelberg, Editör: Hu, B., Morasch, K., Pickl, S., Siegle, M., ISBN:978-3-642-20009-0.
3. In Operations Research Proceedings 2008, New Optimization Methods in Data Mining (2009), Akyüz Süreyya, Öztürk Basak, Tchemisova Tatiana, Weber Gerhard Wilhelm, Springer-Verlag Berlin Heidelberg, Editör: Bernhard Fleischmann, Karl-Heinz Borgwardt, Robert Klein, Axel Tuma, ISBN:978-3-642-00141-3.
4. In Data Mining, Annals of Information Systems, Prediction with the SVM using test point margins) (2009), Akyüz Süreyya, Hussain Zakria, Shawe Taylor John, Springer US, ISBN:1934-3221.
5. In Multilingual Information Access Evaluation II. Multimedia Experiments, Automated X-Ray Image Annotation (2010)., Ünay Devrim, Soldea Octavian, Akyüz Süreyya, Çetin Müjdat, Erçil Aytül, Springer Berlin Heidelberg, ISBN:978-3-642-15751-6.

## E. Articles Presented in National Scientific Meetings and Published in Proceedings:

1. Akyüz Süreyya, Zor Cemre, Ünal Gözde (2009) Plague classification in ultrasound images via multiclass classification with Error Correcting Output Codes (ECOC). Istanbul Conference on Mathematical Methods and Modeling in Life Sciences and Biomedicine 2009.
2. AYDIN SERAP, AKYÜZ SÜREYYA (2016) Normal ve Agresif Kas hareketlerinin Elektrofizyolojik Entropiler Cinsinden Sınıflandırılmasında Destek vektör Makineleri. Elektrik- Elektronik ve Biyomedikal Mühendisliği Konferansı (ELECO 2016).
3. Akyüz, S., Otar, B. Ç. (2017) Ensemble Cluster Selection by Optimization of Accuracy Diversity Trade-off), IEEE Conference on Signal Processing and Communications Applications 2017, pp 1-4, DOI: 10.1109/SIU.2017.7960636, IEEE Conference Publications, Antalya, Turkey.

### Editorials:

1. Vadim Strijov, Richard Weber, G. Wilhelm Weber, Süreyya. Özögür-Akyüz, “Guest Editorial: Data Analysis and Intelligent Optimization with Applications” in **Machine Learning**, Volume 101, pp. 1-4, 2015.
2. Ozogur-Akyuz, S., Unay, D., Smola, A., “*Guest Editorial: Model Selection and Optimization in Machine Learning*”, **Machine Learning**, 85 (1-2), 1-2, 2011.

### Invited Talks

1. Workshop on “Applications of Semi-Infinite Programming, Germany, May 20-21, 2021.
2. Global Summit and Expo on Robot Intelligence Technology and Applications, <https://www.thescientistt.com/robot-intelligence-technology> (GSERITA2021), Lisbon, September 6-8, 2021.

## Memberships in Scientific and Professional Organizations

- *EUROPT* – The Continuous Optimization Working Group of EURO  
([www.iam.metu.edu.tr/EUROPT/](http://www.iam.metu.edu.tr/EUROPT/))
- *SIAM* – Society of Industrial and Applied Mathematics
- *Computational Biology and Medicine Group*, Institute of Applied, Mathematics, Middle East Technical University ([www.iam.metu.edu.tr/research/groups/compbio/index.html](http://www.iam.metu.edu.tr/research/groups/compbio/index.html))



- PASCAL – Pattern Analysis, Statistical Modelling and Computational Learning  
([wwwhttp://www.pascal-network.org/](http://www.pascal-network.org/))

## Courses

Academic Year	Term	Course	Weekly Hour		Number of Students
			Theoretical	Applied	
2009	Summer	Introduction to Probability and Statistics ( <b>Sabancı University</b> )	6	4	250
2009-2010	Fall	Linear Algebra with Matlab (Bahçeşehir University)	3	2	225
	Spring	Linear Algebra with Matlab (Bahçeşehir University)	3	2	100
		Numerical Optimization (MSc Course, Bahçeşehir University)	3	-	7
2011-2012	Fall	Linear Algebra with Matlab (Bahçeşehir University)	3	2	250
		Differential Equations (Bahçeşehir University)	3	-	250
2012-2013	Fall	Calculus I (Bahçeşehir University)	3	2	240
	Spring	Calculus II	3	2	250
2013-2014	Fall	Calculus I	3	2	240
	Spring	Calculus II			350
	Summer	Calculus I			100
2014-2015	Fall	Calculus I (3 section)	3	2	120
		Engineering Mathematics (MSc Course)	3		17
	Spring	Calculus II (3 section)	3	2	413
2015-2016	Fall	Calculus I (3 section)	3	2	400
	Spring	Calculus II (3 section)	3	2	337
2016-2017	Fall	Calculus I	3	2	200
		Linear Algebra and Differential Equations	3	2	84
		Linear Programming (Ph.D. Course)	3	-	10
	Spring	Introduction to Bioinformatics	3		48
		Computational Biology II	3		21
		Numerical Optimization (Ph.D. Course)	3		5
	Summer	Calculus I	3	2	121

		Linear Algebra	3		95
2017-2018	<b>Fall</b>	Calculus II	3	2	149
		Linear Algebra and Differential Equations	3	2	133
		Linear Optimization/Optimization Techniques (Ph.D. Course)	3	0	13
	<b>Spring</b>	Calculus I	3	2	117
		Computational Biology II	3	2	62
		Optimization (Ph.D.)	3	0	8
	<b>Summer</b>	Calculus I	3	2	133
2018-2019	<b>Fall</b>	Linear Algebra with Applications	3	2	128
		Computational Biology I	3	2	
	<b>Spring</b>	Data Mining	3	0	23
		Computational Biology II	3	2	62
		Differential Equations	3	0	123
		Optimization for Machine Learning/Optimization (Ph.D. Course)	3	0	8
	2019-2020	<b>Spring</b>	Mathematical Data Analysis	3	0
<b>Summer</b>		Differential Equations	3	0	130
2020-2021	<b>Fall</b>	Linear Algebra with Applications	3	2	120
	<b>Spring</b>	Mathematical Data Analysis	2	2	27
		Principles of Large-Scale Machine Learning (Ph.D. course)	3	0	7
		Optimization (Ph.D. Course)	3	0	3