

ÖZGEÇMİŞ

1. **Adı Soyadı:** Süreyya Özöğür-Akyüz
2. **Doğum Tarihi:** 25.01.1982
3. **Ünvanı:** Doç. Dr. (UAK 4 Nisan 2016)
4. **Öğrenim Durumu:**

Derece	Alan	Üniversite	Yıl
Lisans	Matematik	Ortadoğu Teknik Üniversitesi	2002
Y. Lisans	Uygulamalı Matematik/Bilimsel Hesaplama	Ortadoğu Teknik Üniversitesi	2005
Msc Thesis: “Mathematical Modeling of Enzymatic Reactions, Simulation and Parameter Estimation”, Supervisors: Prof. Dr. Bülent Karasözen, Prof. Dr. Gerhard Wilhelm Weber			
Doktora	Uygulamalı Matematik/Bilimsel Hesaplama	Ortadoğu Teknik Üniversitesi	2009
PhD Thesis: “A Mathematical Contribution of Statistical Learning And Continuous Optimization Using Infinite And Semi-Infinite Programming To Computational Statistics” Danışmanlar: Prof. Dr. Gerhard Wilhelm Weber (METU, TR), Prof. Dr. John Shawe-Taylor (UCL, UK)			

Araştırma Alanları: Computational Statistics, Machine Learning, Numerical Optimization, Semi-infinite Optimization, Facial Expression Classification, Ensemble Pruning, Kernel Learning, Ensemble Classification, Ensemble Clustering, Computational Biology.

Görevler

Doçent 2017 Mayıs-	Bahçesehir Üniversitesi/Mühendislik Ve Doğa Bilimleri Fakültesi/Biyomedikal Mühendisliği Bölümü
Yardımcı Doçent 2015-2017	Bahçesehir Üniversitesi/Mühendislik Ve Doğa Bilimleri Fakültesi/Biyomedikal Mühendisliği Bölümü
Yardımcı Doçent 2013-2015	Bahçesehir Üniversitesi/Fen-Edebiyat Fakültesi/Matematik-Bilgisayar Bölümü

Research Fellow 2011-2013	University of Surrey , Faculty of Engineering Science, Centre For Vision Statistical and Signal Processing (CVSSP), Surrey, UK
Visiting Scientist July 1 –August 30, 2009	Fraunhofer Institute SCAI , Bioinformatics Bonn, Germany
Yardımcı Doçent 2009-2011	Bahçesehir Üniversitesi /Fen-Edebiyat Fakültesi/Matematik-Bilgisayar Bölümü
Research Fellow 2007-2009	Sabancı Üniversitesi /Mühendislik ve Doga Bilimleri Fakültesi, Bölümü/Elektronik Mühendisliği (Vision and Pattern Analysis LAB)
Araştırma Görevlisi 2002-2007	Orta Doğu Teknik Üniversitesi /Uygulamalı Matematik Enstitüsü
Visiting Scientist 2006 Mayıs-2007 Şubat(9 ay)	University College London/Computer Science, Supervised by John Shawe-Taylor (during PhD)

Projelerde Yaptığı Görevler:

H1. Proje Başlığı: (2017-2019) TUBİTAK 3501, “Doğruluk ve Çeşitlilik Ödünleşimlerinin Eniyilemesi İle Kümeleme Toplulukların Seçimi” (Ensemble Clustering Selection by Optimization of Accuracy-Diversity Trade off)

Projedeki Görevi: Yürütücü

Proje Konusu/alani: Makine Öğrenmesi, Öbeleme, Optimizasyon Topluluk Öğrenmesi, Topluluk Budama (Machine Learning, Clustering, Optimization, Ensemble Learning, Ensemble Pruning)

Destekleyen kuruluş: TUBİTAK ARDEB 3501

Projenin başlangıç ve bitiş yılları: 2017 Haziran- 2019 Haziran

Proje Toplam Bütçesi: 207.320.00 TL

H2. Proje başlığı: (2010-2014), EU7 SICA Collaborative Project (small or medium-scaled focused research project) with focus on Eastern Europe and Central Asia (<http://www.syspatho.eu/index.html>)

Projedeki Görevi: Yürütücü (Partner)

Proje konusu/alanı: New Algorithms for Host Pathogen Systems Biology / Bioinformatik

Destekleyen kuruluş: Avrupa Birliği 7. Çerçeve

Proje Ortakları:

1. University of Heidelberg (UHEI), Germany,
2. University Hospital Heidelberg (UKL-HD), Germany
3. Institute Natiol 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. Özöğür-Akyüz
8. PBSOft LLC (PBSOFT), Russia
9. NovaMechanics Ltd. (NovaMechanics), Cyprus
10. ORT Braude College (OBD), Israel
11. University of Technology Dresden (TUD), Germany

Projenin başlangıç ve bitiş yılları: 2010 Ekim- 2014 Ekim

Proje Toplam Bütçesi: 3 million Euro

H3. Proje başlığı: (2011-2013) EU7 Marie Curie Intra European Fellowship

Projedeki Görevi: Bursiyer (Postdoc)

Proje konusu/alanı: Mathematical Modelling of Ensemble Classifier Systems Via Optimization of Divergence-Accuracy Trade off / Optimizasyon

Destekleyen kuruluş: Avrupa Birliği 7. Çerçeve

Projenin gerçekleştiği üniversite/ülke: University of Surrey, İngiltere

Principal Investigator: Dr. Terry Windeatt, University of Surrey, İngiltere

Projenin başlangıç ve bitiş yılları: 2011 Mart- 2013 Mart

Proje Toplam Bütçesi: 183.000 Euro

H4. Proje Başlığı: (Ağustos 2007- Aralık 2008) SPICE -

Projedeki Görevi: Bursiyer

Proje Konusu: *Fraud Detection* by data mining and machine learning techniques and optimization

Destekleyen Kuruluş: EU 6th Network of Excellence.)

Projenin gerçekleştirildiği üniversite. Computer Vision and Pattern Analysis Lab (VPA lab), Electrics and Electronics Department, Faculty of Engineering Science and Natural Science, Sabanci University, Istanbul, Turkey.

H5. Proje Başlığı: (Ocak 2009- Eylül 2009)

Projedeki Görevi: Postdoc araştırmacı

Proje Tanımı: Fraud Detection in Healthcare Systems, TEYDEB project of The Scientific and Technological Research Council of Turkey (TUBITAK) and **collaboration with health insurance provision company, PROMED.**

Projenin gerçekleştirildiği üniversite: Sabanci University, Faculty of Engineering and Natural Science, Istanbul, Turkey. Supervised by Prof. AYTÜL ERÇİL, Computer Vision and Pattern Analysis Lab (VPA lab) at Electric and Electronics Department.

Ödüller ve Burslar

1. **PASCAL funding** for collaboration of scientific visit to University College London (UCL), UK, Department of Computer Science, with Prof. John Shawe-Taylor, 2006.
2. **DAAD Scholarship** (German Academic Exchange Service), funding for collaboration of scientific visit to Fraunhofer Institute Dept. of Bioinformatics, SCAI in Bonn, Germany with Prof. Martin Hofmann Apitius, June 1- August 30, 2010.
3. **Microsoft Imagine Cup** award in Software category, **became third in Turkey finals**, students: Ünal Akyüz, Gizem Aktürk, Onur Yazici, Okan Kiliç, mentored by Süreyya Özöğür-Akyüz, 2010
4. In the **shortlist of among three finalist** of EURO 24th International Conference on **Operational Research, PhD Dissertation Award** 2010
5. **Microsoft Imagine Cup Turkey finalist (became 1st)** in Software category, students: Unal Akyuz, Gizem Akturk, Onur Yazici, Okan Kilic, mentored by Süreyya Özöğür-Akyüz, 2011
6. **Microsoft Imagine Cup Grants 2011**, listed in the **first 15 in worldwide**, 2011
7. **Marie Curie Intra European Fellowship, EU7th Framework** project “OPTDIVA” held in University of Surrey, UK, 2011

Eserler

Yönetilen Tezler

Yüksek Lisans

1. Gülnur Şahin (2012), Maximum Margin Multiple Kernel Clustering By Semi - Infinite Programming, Bahçeşehir Üniversitesi, (Supervisor)
2. İrem Karaduman (2012), Reconstruction of Signalling Pathways by Novel Graph Theoretical Approach, Bahcesehir Universitesi, (Supervisor)
3. Deniz Topuz (2014), Topics in Machine Learning and Data Mining, Bahçeşehir Üniversitesi, (Co-Supervisor)
4. Buse Çisil Otar (2016-Devam) , Ensemble Pruning by DC Programming, Bahçeşehir University (Supervisor)

A. Uluslararası hakemli dergilerde yayınlanan makaleler (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. 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
9. **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)

B. Uluslararası bilimsel toplantılarda sunulan ve bildiri kitabında (*Proceedings*) basılan bildiriler

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 6th IC-TST; 6th 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. Özöğür-Akyüz, A.Ö. Argunşah, A. Akyüz and T. Windeatt, Sleep Stage Classification using ECOC, (poster) in 4th International Symposium on Health Informatics and Bioinformatics (HIBIT), Ankara, Turkey, April 16-17, 2009.
10. B. Kaymakoglu, A. Akyüz, S. Özöğür-Akyüz, N. Baykal and F. Özgen, Data Mining and Knowledge Discovery studies in psychophysiological and paradoxical sleep apnea patients, in 23rd 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. Özöğür-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. Özöğür -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 24th European Conference on Operational Research (EURO XXI), pp 14, 2010.
15. G. Üstünkar, S. Özöğür-Akyüz, G.W-Weber, N. Baykal, Application of advanced machine learning methods for tag snp selection in complex disease association studies, In Proceedings of 24th European Conference on Operational Research (EURO XXI), pp 35, 2010.
16. S. Özöğür-Akyüz, G.W.-Weber, Adapted Infinite Kernel Learning by Multi-Local Algorithm, In Proceedings of 24th European Conference on Operational Research (EURO XXI), pp. 78, 2010
17. G. Ustünkar, S. Özöğür- 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. Özöğür-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.
19. S. Özöğür-Akyüz, T. Windeatt, Ensemble Pruning via DC Programming, R. Smith, In Proceedings of 24th 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.
21. S. Özögür-Akyüz, T. Windeatt, Learning Weights of Multiple Kernels by Genetic Algorithm: integrated with ECOC, EURO, INFORMS 26th Conference on Operational Research, pp. 27, Rome, Italy, 2013.
22. S. Özögür-Akyüz, G. Seichanoughlu, Maximum Margin Multiple Kernel Clustering by Semi-infinite Optimization, 20th Conference of the International Federation of Operational Research Societies (IFORS), Barcelona, 2014.
23. S. Özögür-Akyüz, Ensemble Clustering Selection by Optimization of Accuracy-Diversity Trade off, In Proceedings of 28th European Conference on Operational Research (EURO XXVIII), 2016, Poznan, Poland
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
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
26. B. Eygi Erdoğan, S. Özögür- Akyüz, Clustered Support Vector Regression: House Price Prediction Case Study, In Proceedings of Xth International Statistics Days Conference, Giresun, Turkey, 2016
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

C. Yazılan ulusal/uluslararası kitaplar veya kitaplardaki bölümler:

C1. Yazılan ulusal/uluslararası kitaplar:

1. Infinite Kernel Learning by Semi-infinte Optimization: Integrated with New Model Selection Algorithm (2011)., **Akyüz Süreyya**, LAP LAMBERT Academic Publishing, Sayfa Sayısı 172, ISBN: 978-3845434988, İngilizce (Bilimsel Kitap)
2. Mathematical Modelling of Enzymatic Reactions: Simulation and Parameter Estimation by Genetic Algorithm (2009)., **Akyüz Süreyya**, VDM Verlag Dr. Müller, Sayfa Sayısı 88, ISBN:978-3-639- 13153-6, İngilizce (Bilimsel Kitap)

C. Yazılan ulusal/uluslararası kitaplar veya kitaplardaki bölümler:

C2. Yazılan ulusal/uluslararası kitaplardaki bölümler:

1. Operations Research Proceedings 2010, Selected Papers of the Annual International Conference of the German Operations Research Society, Bölüm adı:(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, İngilizce(Bilimsel Kitap),
2. Multilingual Information Access Evaluation II. Multimedia Experiments, Bölüm adı:(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, İngilizce (Bilimsel Kitap)
3. Data Mining, Annals of Information Systems, Bölüm adı:(Prediction with the SVM using test point margins) (2009)., **Akyüz Süreyya**, Hussain Zakria, Shawe Taylor John, Springer US, ISBN:1934-3221, İngilizce (Bilimsel Kitap)
4. Operations Research Proceedings 2008, Bölüm adı:(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, İngilizce (Bilimsel Kitap)
5. Recent Advances in Statistics, Bölüm adı:(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, İngilizce (Bilimsel Kitap)

E. Ulusal bilimsel toplantılarda sunulan ve bildiri kitaplarında basılan bildiriler:

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) Doğruluk ve Çeşitlilik Ödünleşimlerinin Eniyilemesi ile Kümeleme Topluluklarının Seçilmesi, Sinyal İşleme Kurultayı (SIU) 2017, pp 1-4, DOI: 10.1109/SIU.2017.7960636, IEEE Conference Publications, Antalya, Türkiye

Yayın Hakemliği

1. Bildiri Kitabı Seventh International Conference on Machine Learning and Applications, Hakemlik Sayısı:2
2. Bildiri Kitabı Computer Vision for Intravascular and Intracardiac Imaging, Hakemlik Sayısı:1
3. Dergi SCI, Discrete Applied Mathematics, Hakemlik Sayısı:1
4. Dergi SCI, European Journal of Operational Research, Hakemlik Sayısı:1

5. Dergi SCI, Machine Learning, Hakemlik Sayısı:1

Editörlük

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.

Bilimsel ve Mesleki Kuruluşlara Üyelikler

- **EUROPT** – The Continuous Optimization Working Group of EURO
(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)
- **PASCAL** – Pattern Analysis, Statistical Modelling and Computational Learning
([wwwhttp://www.pascal-network.org/](http://www.pascal-network.org/))

Verdiği Dersler

Akademik Yıl	Dönem	Dersin Adı	Haftalık Saati		Öğrenci Sayısı
			Teorik	Uygulama	
2009	Yaz	Introduction to Probability and Statistics (Sabancı Üniversitesi)	6	4	250
2009-2010	Güz	Linear Algebra with Matlab (Bahçeşehir Üniversitesi)	3	2	225
	İlkbahar	Lineer Algebra with Matlab (Bahçeşehir Üniversitesi)	3	2	100
		Numerical Optimization(Yüksek lisans, Bahçeşehir Üniversitesi)	3	-	7
2011-2012	Güz	Lineer Algebra with Matlab (Bahçeşehir Üniversitesi)	3	2	250
		Differential Equations(Bahçeşehir Üniversitesi)	3	-	250
2012-2013	Güz	Calculus I(Bahçeşehir Üniversitesi)	3	2	240

	Bahar	Calculus II	3	2	250
2013-2014	Güz	Calculus I	3	2	240
	Bahar	Calculus II			350
	Yaz	Calculus I			100
2014-2015	Güz	Calculus I(3 section)	3	2	120
		Engineering Mathematics(Yüksek Lisans)	3		17
	Bahar	Calculus II(3 section)	3	2	413
2015-2016	Güz	Calculus I(3 section)	3	2	400
	Bahar	Calculus II(3 section)	3	2	337
2016-2017	Güz	Calculus I	3	2	200
		Linear Algebra and Differential Equations	3	2	84
		Linear Programming(Doktora Dersi)	3	-	10
	Bahar	Introduction to Bioinformatics	3		48
		Computational Biology II	3		21
		Numerical Optimization (Doktora Dersi)	3		5
	Yaz Okulu	Calculus I	3	2	121
		Linear Algebra	3		95