

Asst. Prof. AYBAR CAN ACAR

Personal Information

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Education Information

Doctorate, George Mason University, Bilgisayar Bilimi (Computer Science), United States Of America 2002 - 2008

Post Graduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Kimya Mühendisliği (YL) (Tezli), Turkey 1999 - 2001

Under Graduate, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, Turkey 1995 - 1999

Dissertations

Doctorate, Query consolidation: Interpreting queries sent to independent heterogenous databases, George Mason University, Bilgisayar Bilimi (Computer Science), 2008

Post Graduate, Synthesis, modification and characterization of sodalites, Middle East Technical University, Graduate School of Natural and Applied Sciences, Kimya Mühendisliği (YL) (Tezli), 2001

Research Areas

bioinformatics, Database Systems, Artificial Intelligence, Computer Learning and Pattern Recognition, Uncertainty Management, Computer Learning, Bioinformatics, Biological Modelling, Biological Databases

Academic Titles / Tasks

Assistant Professor, Middle East Technical University, Graduate School of Informatics, Medical Informatics, 2018 - Continues

Assistant Professor, Middle East Technical University, Graduate School of Informatics, Medical Informatics, 2012 - 2018

Lecturer, İhsan Doğramacı Bilkent Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2009 - 2012

Research Assistant, George Mason University, 2002 - 2008

Research Assistant, Middle East Technical University, Bilişim Araştırma Merkezi, 2001 - 2002

Research Assistant, Middle East Technical University, Faculty of Engineering, Department of Chemical Engineering, 1999 - 2001

Professional Experience

Head of Department, Middle East Technical University, Graduate School of Informatics, Cybersecurity, 2016 - Continues

Advising Theses

- Acar A. C. , Atalay R., Leveraging the human kinome for anticancer agent cytotoxicity potency prediction, Post Graduate, M.KINALI(Student), 2019
- Acar A. C. , A fully decentralized framework for securely sharing digital content, Post Graduate, A.SERHAT(Student), 2019
- Acar A. C. , Arifođlu A., Supplementing LSRM models by KRI implementation, Post Graduate, F.ÖZÇAKMAK(Student), 2019
- Acar A. C. , Somel M., De novo SNP calling and demographic inference using trio genome data, Post Graduate, E.BOZLAK(Student), 2019
- ACAR A. C. , Odyssey: A tool for microRNA-mRNA expression and interaction visualization, Post Graduate, A.TACİROĐLU(Student), 2018
- ACAR A. C. , Ağırlandırılmış gen ko-ekspresyon ağ analizinden (WGCNA) elde edilen biyobelirteçlerin kullanılmasıyla malign melanomda ilaç seçimi, Post Graduate, S.ALPSOY(Student), 2017
- ACAR A. C. , Prediction of surgical operation durations using supervised machine learning techniques, Post Graduate, E.ZABARDAST(Student), 2017
- ACAR A. C. , Gene function inference from expression using probabilistic topic models, Doctorate, B.TERCAN(Student), 2016
- ACAR A. C. , ATALAY R., Identification of gene mutations involved in drug resistance in liver cancer using RNA-Seq data analysis, Post Graduate, M.SHOJAEI(Student), 2016
- AYDIN SON Y., ACAR A. C. , Cytokine polymorphism catalog (CytoCAT) for the analysis of phenotype associations, Post Graduate, G.OĐUZ(Student), 2014
- ACAR A. C. , Multiscale tumor modeling, Post Graduate, S.ÜNSAL(Student), 2014
- PURUTÇUOĐLU GAZİ V., ACAR A. C. , Analysis of motifs in microRNA-transcription factor gene regulatory networks, Post Graduate, B.SÜRÜN(Student), 2014
- ACAR A. C. , Post operative prognostic prediction of esophageal cancer cases using bayesian networks and support vector machines, Post Graduate, N.BAGHERZADİ(Student), 2014

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- **The Use of Informed Priors in Biclustering of Gene Expression with the Hierarchical Dirichlet Process.**
Tercan B., Acar A. C.
IEEE/ACM transactions on computational biology and bioinformatics, 2019 (Journal Indexed in SCI)
- **mESAdb: microRNA expression and sequence analysis database.**
Kaya K., Karakulah G., Yakicier C., Acar A. C. , Konu O.
Nucleic acids research, vol.39, 2011 (Journal Indexed in SCI Expanded)
- **The synthesis and sodium-silver ion exchange of sodalites**
Acar A., Yucel H., Culfaz A.
CHEMICAL ENGINEERING COMMUNICATIONS, vol.190, pp.861-882, 2003 (Journal Indexed in SCI)

Books & Book Chapters

- **Inferring User Goals from Sets of Independent Queries in a Multidatabase Environment**
ACAR A. C. , MOTRO A.
in: Advances in Intelligent Information Systems, Zbigniew W Ras, Li-Shiang Tsay, Editor, Springer, Berlin, pp.225-243, 2010

Refereed Congress / Symposium Publications in Proceedings

- **Design and Evaluation of an Interactive Art Installation to Introduce 'de novo' Mutations to Different Audiences: "Music Within" Project**
Bozlak E., ACAR A. C. , SÜRER E.
4th EAI International Conference on Smart Objects and Technologies for Social Good, Bologna, Italy, 28 - 30 November 2018, pp.82-87
- **A framework for applying bioinformatics analysis of drug resistance to mathematical tumor models**
ÜNSAL S., ACAR A. C. , İTİK M., KURT B., ÜNSAL Ü., TURHAN K.
NGS Tech Applications Congress: USA, United States Of America, 25 - 26 July 2017
- **A Method Proposal for Revealing Epigenetic Immune-Escape Mechanisms Using 450k Methylation Array Data**
KASAP B., ÜNSAL S., AYDIN KASAP Z., ACAR A. C. , TURHAN K.
10. International Symposium on Health Informatics and Bioinformatics (HIBIT), 28 - 30 June 2017
- **Identification of Gene Mutations Involved in Drug Resistance in Liver Cancer Using Rna-Seq Data Analysis**
Shojei M., Akhan E., ACAR A. C. , ATALAY R.
The International Symposium on Health Informatics and Bioinformatics, (HIBIT), 28 - 30 June 2017
- **Kişiselleştirilmiş Tıp Uygulamaları ve Bir Örnek**
ÜNSAL S., ACAR A. C. , İTİK M., KABATAŞ A., GEDİKLİ Ö., TURHAN K.
Tıp Bilişiminde Yenilikler Sempozyumu, Turkey, 25 March 2017
- **Segmenting and Labeling Query Sequences in a Multidatabase Environment**
Acar A. C. , Motro A.
Confederated International Workshops and Posters: EI2N plus NSF ICE, ICSP plus INBAST, ISDE, ORM, OTMA, SWWS plus MONET plus SeDeS, and VADER, Hersonissos, Greece, 17 - 21 October 2011, vol.7044, pp.367-368
- **Efficient discovery of join plans in schemaless data**
ACAR A. C. , Motro A.
Proceedings of the 2009 International Database Engineering Applications Symposium on - IDEAS 'xx09, Cetraro - Calabria, Italy, 16 - 18 September 2009
- **Query Consolidation: Interpreting a Set of Independent Queries Using a Multidatabase Architecture in the Reverse Direction**
ACAR A. C. , Motro A.
14th International Workshop on New Trends in Information Integration, VLDB-NTII 2008, 24 - 30 August 2008
- **Why is this User Asking so Many Questions Explaining Sequences of Queries**
ACAR A. C. , AMIHAI M.
18th Annual IFIP TC11/WG 11.3 Conference on Data and Applications Security, Sitges, Spain, 25 - 28 July 2004
- **Utility Based Resolution of Data Inconsistencies**
MOTRO A., ANOKHIN P., ACAR A. C.
Proceedings of the International Workshop on Information Quality in Information Systems, 23th ACM SIGMOD International Conference on Management of Data, 13 - 18 July 2004

Supported Projects

- ACAR A. C. , CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Kanser Sistem Biyolojisi Laboratuvarı KanSİL, 2016 - Continues
- ACAR A. C. , Project Supported by Higher Education Institutions, MikroRNA-Transkripsiyon Faktörü Düzenleyici Ağlarının Gen İfade Verisinden Olasılıksal Tema Modelleri Kullanılarak Tanımlanması, 2013 - 2019

Scientific Refereeing

- TUBITAK Project, 1507 - TÜBİTAK SME R&D Start Support Program, B2METRİK YAZILIM VE BİLİŞİM LİMİTED ŞİRKETİ

(İSTANBUL), Turkey, September 2019

IEEE-ACM TRANSACTIONS ON COMPUTATIONAL BIOLOGY AND BIOINFORMATICS, Journal Indexed in SCI-E, October 2018

Scientific Research / Working Group Memberships

Kanser Sistem Biyolojisi Laboratuvarı, Middle East Technical University, Turkey, <https://cansyl.metu.edu.tr>, 2016 - Continues

Invited Congress and Symposium Activities

4th International Congress of the Molecular Biology Association of Turkey, Invited Speaker, Ankara, Turkey, 2015

Citations

Total Citations (WOS):33

h-index (WOS):2