

## Prof. AHMET COŞAR

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: C-7700-2012

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### Education Information

Doctorate, University of Minnesota-Twin Cities, Bilgisayar Mühendisliği, United States Of America 1992 - 1996

Postgraduate, Ihsan Dogramaci Bilkent University, Institute Of Engineering And Natural Sciences, Bilgisayar Mühendisliği (YI) (Tezli), Turkey 1986 - 1988

Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Computer Engineering, Turkey 1981 - 1986

### Foreign Languages

English, C1 Advanced

### Academic and Administrative Experience

Middle East Technical University, Graduate School of Natural and Applied Sciences, Jeodezi Ve Coğrafi Bilgi Teknolojileri (YI) (Tezli), 2012 - 2014

Kirgizistan-Türkiye Manas Üniversitesi, Mühendislik, Bilgisayar Mühendisliği, 2006 - 2007

### Advising Theses

GÜNEL KILIÇ B., COŞAR A., APPLICATION OF PARTICLE SWARM OPTIMIZATION ALGORITHM IN ALLOCATING CLOUD RESOURCES FOR VIDEO ON DEMAND, Doctorate, B.AYGÜN(Student), 2018

COŞAR A., ÇİÇEKLİ F. N., Semantic video analysis for surveillance systems, Doctorate, K.KARDAŞ(Student), 2018

COŞAR A., A framework for design and personalization of digital, just-in-time, adaptive interventions, Doctorate, S.GÖNÜL(Student), 2018

COŞAR A., Multiobjective evolutionary feature subset selection algorithm for binary classification, Postgraduate, F.AYÇA(Student), 2016

COŞAR A., Context-sensitive keyword density based supervised learning techniques for detection of malicious web pages, Postgraduate, B.ALTAŞ(Student), 2016

COŞAR A., A stagnation aware cooperative breakout local search algorithm for the quadratic assignment problem on a multi-core architecture, Postgraduate, Y.AKSAN(Student), 2016

COŞAR A., Hybrid metaheuristic algorithms for single and multi-objective 2D Bin packing problem, Postgraduate, M.BEYAZ(Student), 2015

Bilgin Altınöz A. G., Coşar A., An improved spatio-relational database design for urban conservation and its performance

analysis, Postgraduate, B.BALCIOĞLU(Student), 2015

SAHİLLİOĞLU Y., COŞAR A., Scalable evolutionary algorithm for solving the one-dimensional bin packing problem on GPU using CUDA, Postgraduate, Ş.ÖZER(Student), 2015

COŞAR A., SAHİLLİOĞLU Y., A Scalable evolutionary algorithm for solving the one-dimensional bin packing problem on GPU using CUDA, Postgraduate, Ş.Özer(Student), 2015

YAZICI A., COŞAR A., An efficient fuzzy fusion-based framework for surveillance applications in wireless multimedia sensor networks, Postgraduate, S.ALPER(Student), 2014

COŞAR A., UBL based business document management for achieving business innovation in virtual enterprise environments, Postgraduate, R.VOLKAN(Student), 2014

COŞAR A., Multiobjective relational data warehouse design for the cloud, Doctorate, T.DÖKEROĞLU(Student), 2014

COŞAR A., Multilingual dynamic linking of web resources, Postgraduate, U.DÖNMEZ(Student), 2014

COŞAR A., Parallelization of K-means and DBSCAN clustering algorithms on a HPC cluster, Postgraduate, H.DURRANI(Student), 2013

COŞAR A., Distributed database design with integer linear programming and evolutionary hybrid algorithms, Doctorate, U.TOSUN(Student), 2013

COŞAR A., Routing and security in wireless sensor networks, an experimental evaluation of a proposed trust based routing protocol, Postgraduate, N.CHALABIANLOO(Student), 2013

COŞAR A., Improving the performance of Hadoop/Hive by sharing scan and computation tasks, Postgraduate, S.ÖZAL(Student), 2013

COŞAR A., A C++ distributed database select - project - join query processor on a HPC cluster, Postgraduate, E.Ceran(Student), 2012

COŞAR A., Execution of distributed database queries on a HPC system, Postgraduate, İ.SEÇKİN(Student), 2010

COŞAR A., Performance analysis and comparison of SOA servers in different applications, Postgraduate, M.KUSZEWSKI(Student), 2010

COŞAR A., AKYÜREK S. Z., Real-time 2D/3D display of DTED maps and evaluation of interpolation algorithms, Postgraduate, A.DEMİR(Student), 2010

COŞAR A., Comparison of domain-independent and domain-specific location predictors with campus-wide WI-FI mobility data, Postgraduate, M.KARAKOÇ(Student), 2010

YAZICI A., COŞAR A., A web based GIS mashup for archaeology, Postgraduate, B.ÖZTÜRK(Student), 2010

COŞAR A., A conformance and interoperability test suite for Turkey's NHIS and an interactive test control and monitoring environment, Postgraduate, A.ANIL(Student), 2009

COŞAR A., Genetic algorithms for distributed database design and distributed database query optimization, Doctorate, E.Sevinç(Student), 2009

COŞAR A., A C++ implementation and evaluation of alternative plan generation for multiple query optimization, Postgraduate, D.ABUDULA(Student), 2006

COŞAR A., A C++ implementation and evaluation of alternative plan generation methods for multiple query optimization, Postgraduate, D.Abudula(Student), 2006

COŞAR A., Target classification and recognition using underwater acoustic signals, Postgraduate, T.Yağcı(Student), 2005

COŞAR A., Target classification and recognition using underwater acoustic signals, Postgraduate, T.YAĞCI(Student), 2005

COŞAR A., Acceleration of direct volume rendering with texture slabs on programmable graphics hardware, Postgraduate, H.YALIM(Student), 2005

COŞAR A., A study of Kangaroo Transaction model for mobile transaction management, Postgraduate, Z.Örenç(Student), 2004

COŞAR A., Ad hoc packet routing simulation and tactical picture display tool for navy, Postgraduate, O.AYMAK(Student), 2004

COŞAR A., Ad Hoc routing simulation and tactical picture display tool for navy, Postgraduate, O.Aymak(Student), 2004

COŞAR A., A study of kangaroo transaction model for mobile transaction management, Postgraduate, Z.ÖRENÇ(Student), 2004

COŞAR A., A proposal for tactical messaging and usage of extensible markup language message text formats in the tactical command control and information systems, Postgraduate, H.Sayın(Student), 2003

COŞAR A., Storing and querying user context information using ontologies and trusted authorities, Postgraduate,

Ö.NECİP(Student), 2003

COŞAR A., A proposal for tactical messaging and usage of extensible markup language message text formats in the tactical command control and information systems, Postgraduate, H.SAYIN(Student), 2003

COŞAR A., Design and implementation of an ebXML compliant B2B interoperability platform., Postgraduate, Y.Tambag(Student), 2002

COŞAR A., Design and implementation of an EBXML compliant B2B interoperability platform, Postgraduate, Y.TAMBAĞ(Student), 2002

COŞAR A., Dynamic modification of XML documents, Postgraduate, E.Sevinç(Student), 2000

COŞAR A., Benchmarking of a student information database, Postgraduate, O.SARIOĞLU(Student), 1999

COŞAR A., Component based application development, Postgraduate, O.Göçmenoğlu(Student), 1999

COŞAR A., A student information database, Postgraduate, O.Sarioğlu(Student), 1999

COŞAR A., Component based application development, Postgraduate, O.GÖÇMENOĞLU(Student), 1999

COŞAR A., Rapid application development classes for database applications, Postgraduate, A.ERDEM(Student), 1999

COŞAR A., Estimation of selection and join selectives using regression analysis, Postgraduate, M.Abusafiya(Student), 1997

COŞAR A., Estimation of selection and join selectivities using regression analysis, Postgraduate, M.ABUSAFİYA(Student), 1997

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

- I. **A reinforcement learning based algorithm for personalization of digital, just-in-time, adaptive interventions**  
Gönül S., Namlı T., Coşar A., TOROSLU İ. H.  
Artificial Intelligence in Medicine, vol.115, 2021 (SCI-Expanded)
- II. **Application of binary PSO for public cloud resources allocation system of video on demand (VoD) services**  
Aygun B., GÜNEL KILIÇ B., ARICI N., COŞAR A., Tunçsiper B.  
Applied Soft Computing, vol.99, 2021 (SCI-Expanded)
- III. **A new framework of multi-objective evolutionary algorithms for feature selection and multi-label classification of video data**  
Karagoz G. N., YAZICI A., Dokeroglu T., Cosar A.  
INTERNATIONAL JOURNAL OF MACHINE LEARNING AND CYBERNETICS, vol.12, no.1, pp.53-71, 2021 (SCI-Expanded)
- IV. **Analysis of Multiobjective Algorithms for the Classification of Multi-Label Video Datasets**  
Karagoz G. N., YAZICI A., Dokeroglu T., Cosar A.  
IEEE ACCESS, vol.8, pp.163937-163952, 2020 (SCI-Expanded)
- V. **Context-sensitive and keyword density-based supervised machine learning techniques for malicious webpage detection**  
Altay B., Dokeroglu T., COŞAR A.  
SOFT COMPUTING, vol.23, no.12, pp.4177-4191, 2019 (SCI-Expanded)
- VI. **An expandable approach for design and personalization of digital, just-in-time adaptive interventions**  
Gonul S., Namli T., Huisman S., Erturkmen G. B. L., TOROSLU İ. H., COŞAR A.  
JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION, vol.26, no.3, pp.198-210, 2019 (SCI-Expanded)
- VII. **Novel multiobjective TLBO algorithms for the feature subset selection problem**  
Kiziloz H. E., Deniz A., Dokeroglu T., COŞAR A.  
NEUROCOMPUTING, vol.306, pp.94-107, 2018 (SCI-Expanded)
- VIII. **Robust multiobjective evolutionary feature subset selection algorithm for binary classification using machine learning techniques**

Deniz A., Kiziloz H. E., Dokeroglu T., COŞAR A.

NEUROCOMPUTING, vol.241, pp.128-146, 2017 (SCI-Expanded)

- IX. **A stagnation-aware cooperative parallel breakout local search algorithm for the quadratic assignment problem**  
Aksan Y., Dokeroglu T., COŞAR A.  
COMPUTERS & INDUSTRIAL ENGINEERING, vol.103, pp.105-115, 2017 (SCI-Expanded)
- X. **A novel multistart hyper-heuristic algorithm on the grid for the quadratic assignment problem**  
Dokeroglu T., COŞAR A.  
ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, vol.52, pp.10-25, 2016 (SCI-Expanded)
- XI. **Robust hyper-heuristic algorithms for the offline oriented/non-oriented 2D bin packing problems**  
Beyaz M., Dokeroglu T., COŞAR A.  
APPLIED SOFT COMPUTING, vol.36, pp.236-245, 2015 (SCI-Expanded)
- XII. **Multi-objective evolutionary routing protocol for efficient coverage in mobile sensor networks**  
Attea B. A., Khalil E. A., COŞAR A.  
SOFT COMPUTING, vol.19, no.10, pp.2983-2995, 2015 (SCI-Expanded)
- XIII. **Robust heuristic algorithms for exploiting the common tasks of relational cloud database queries**  
Dokeroglu T., Bayir M. A., COŞAR A.  
APPLIED SOFT COMPUTING, vol.30, pp.72-82, 2015 (SCI-Expanded)
- XIV. **Optimization of one-dimensional Bin Packing Problem with island parallel grouping genetic algorithms**  
Dokeroglu T., COŞAR A.  
COMPUTERS & INDUSTRIAL ENGINEERING, vol.75, pp.176-186, 2014 (SCI-Expanded)
- XV. **A robust Island Parallel Genetic Algorithm for the Quadratic Assignment Problem**  
Tosun U., Dokeroglu T., COŞAR A.  
INTERNATIONAL JOURNAL OF PRODUCTION RESEARCH, vol.51, no.14, pp.4117-4133, 2013 (SCI-Expanded)
- XVI. **Discovering better navigation sequences for the session construction problem**  
Bayir M. A., Toroslu I. H., Demirbas M., COŞAR A.  
DATA & KNOWLEDGE ENGINEERING, vol.73, pp.58-72, 2012 (SCI-Expanded)
- XVII. **A Web-Based Personalized Mobility Service for Smartphone Applications**  
Bayir M. A., Demirbas M., COŞAR A.  
COMPUTER JOURNAL, vol.54, no.5, pp.800-814, 2011 (SCI-Expanded)
- XVIII. **An Evolutionary Genetic Algorithm for Optimization of Distributed Database Queries**  
Sevinc E., COŞAR A.  
COMPUTER JOURNAL, vol.54, no.5, pp.717-725, 2011 (SCI-Expanded)
- XIX. **Genetic algorithm for the multiple-query optimization problem**  
Bayir M. A., Toroslu I. H., Cosar A.  
IEEE TRANSACTIONS ON SYSTEMS MAN AND CYBERNETICS PART C-APPLICATIONS AND REVIEWS, vol.37, no.1, pp.147-153, 2007 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Discovering More Accurate Frequent Web Usage Patterns**  
BAYIR M. A., TOROSLU İ. H., COŞAR A., FİDAN G.  
ARXIV, 2008 (Non Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Abstract or Full-text in Topic Modeling? Konu Modellemede Özet mi Tam Metin mi?**  
Tekin Y., Cosar A.

30th Signal Processing and Communications Applications Conference, SIU 2022, Safranbolu, Turkey, 15 - 18 May 2022

**II. Optimization of Just-in-Time Adaptive Interventions Using Reinforcement Learning**

Gonul S., Namli T., Baskaya M., Sinaci A. A., COŞAR A., TOROSLU İ. H.

31st International Conference on Industrial Engineering and Other Applications of Applied Intelligent Systems (IEA/AIE), Montreal, Canada, 25 - 28 June 2018, vol.10868, pp.334-341

**III. Optimal Resource Allocation of Dynamic Video Streaming Applications in a Public Cloud Environment**

Aygun B., ARICI N., COŞAR A.

2017 International Conference on Computer Science and Engineering (UBMK), Antalya, Turkey, 5 - 08 October 2017, pp.445-450

**IV. Effects of selective forwarding attacks on wireless sensor network efficiency**

SERT S. A., YAZICI A., COŞAR A.

2017 25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, Turkey, 15 - 18 May 2017, vol.25, pp.1-4

**V. Effects of Selective Forwarding Attacks on Wireless Sensor Network Efficiency**

Sert S. A., YAZICI A., Cosar A.

25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017

**VI. A Novel Grouping Genetic Algorithm for the One-Dimensional Bin Packing Problem on GPU**

Ozcan S. O., Dokeroglu T., COŞAR A., YAZICI A.

31st International Symposium on Computer and Information Sciences (ISCIS), Krakow, Poland, 27 - 28 October 2016, vol.659, pp.52-60

**VII. An Open, NFC Enabler Independent Mobile Payment and Identification Method: NFC Feature Box**

Turk I., COŞAR A.

17th IEEE International Symposium on A World of Wireless, Mobile and Multimedia Networks (WoWMoM), Coimbra, Portugal, 21 - 24 June 2016

**VIII. Having 4G, Enabling Cloud Based Execution for NFC based Financial Transactions**

Turk I., COŞAR A.

11th International Conference on Innovations in Information Technology (IIT), Dubai, United Arab Emirates, 1 - 03 November 2015, pp.63-67

**IX. Improving Hadoop Hive Query Response Times Through Efficient Virtual Resource Allocation**

Dokeroglu T., Cinar M. S., SERT S. A., COŞAR A., YAZICI A.

11th International Conference on Flexible Query Answering Systems (FQAS), Cracow, Poland, 26 - 28 October 2015, vol.400, pp.215-225

**X. Virtual Resource Allocation Analysis of Hadoop Hive Queries**

Tansel D., Alper Seyyit S., COŞAR A., Muhammet Serkan Ç., YAZICI A.

Int. Conf. on Flexible Query Answering Systems (FQAS 2015), 26 - 28 October 2015

**XI. Hybrid heuristic algorithms for the multi objective load balancing of 2D bin packing problems**

MUHAMMET B., DÖKEROĞLU T., COŞAR A.

International Symposium on Computer and Information Sciences, Londrina, Brazil, 23 - 25 September 2015, pp.209-220

**XII. Internet Connection Sharing Through NFC for Connection Loss Problem in Internet-of-Things Devices**

Turk I., COŞAR A.

15th International Conference on Next-Generation Wired/Wireless Advanced Networks and Systems (NEW2AN) and 8th Conference on Internet of Things and Smart Spaces (ruSMART), St Petersburg, Russia, 26 - 28 August 2015, vol.9247, pp.329-342

**XIII. Impacts of Routing Attacks on Surveillance Wireless Sensor Networks**

SERT S. A., YAZICI A., COŞAR A.

11th IEEE International Wireless Communications and Mobile Computing Conference (IEEE IWCMC), Dubrovnik, Croatia, 24 - 25 August 2015, pp.910-915

**XIV. S Alper Sert Adnan Yazici and Ahmet Cosar Impacts of Routing Attacks on Surveillance Wireless**

**Sensor Networks IWCMC 2015 Dubrovnik Croatia 24 28 August 2015**

Seyyit Alper S., YAZICI A., COŞAR A.

IWCMC-2015, Dubrovnik, Croatia, 24 - 28 August 2015

- XV. **Integer Linear Programming Solution for the Multiple Query Optimization Problem**  
Dokeroglu T., Bayir M. A., COŞAR A.  
29th Annual Symposium on Computer and Information Sciences, Krakow, Poland, 27 - 28 October 2014, pp.51-60
- XVI. **An Efficient Fuzzy Fusion-Based Framework for Surveillance Applications in Wireless Multimedia Sensor Networks**  
SERT S. A., YAZICI A., COŞAR A., Yilmazer C.  
10th International Wireless Communications & Mobile Computing Conference (IWCMC), Nicosia, CYPRUS, 4 - 08 August 2014, pp.767-772
- XVII. **Data Fusion and Processing in Wireless Multimedia Sensor Networks: An Analysis for Surveillance Applications**  
SERT S. A., YAZICI A., COŞAR A.  
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.421-424
- XVIII. **Designing cloud data warehouses using multiobjective evolutionary algorithms**  
Dökeroğlu T., Sert S. A., Çinar M. S., Coşar A.  
6th International Conference on Agents and Artificial Intelligence, ICAART 2014, Angers, France, 6 - 08 March 2014, vol.1, pp.571-576
- XIX. **Dynamic Programming with Ant Colony Optimization Metaheuristic for Optimization of Distributed Database Queries**  
Dokeroglu T., COŞAR A.  
26th Annual International Symposium on Computer and Information Science, London, Canada, 26 - 28 September 2011, pp.107-113
- XX. **Distributed database design with genetic algorithm and relation clustering heuristic**  
Sevinç E., COŞAR A.  
25th International Symposium on Computer and Information Sciences, ISCIS 2010, London, England, 22 - 24 September 2010, vol.62 LNEE, pp.133-136
- XXI. **Fuzzy Decision Fusion for Single Target Classification in Wireless Sensor Networks**  
Gok S., YAZICI A., COŞAR A., George R.  
2010 IEEE World Congress on Computational Intelligence, Barcelona, Spain, 18 - 23 July 2010
- XXII. **Smart Miner: A new framework for mining large scale web usage data**  
Bayir M. A., TOROSLU İ. H., COŞAR A., Fidan G.  
18th International World Wide Web Conference, WWW 2009, Madrid, Spain, 20 - 24 April 2009, pp.161-170
- XXIII. **Track ME! A Web Based Location Tracking and Analysis System for Smart Phone Users**  
Bayir M. A., Demirbas M., COŞAR A.  
24th International Symposium on Computer and Information Sciences, Güzelyurt, Cyprus (Kktc), 14 - 16 September 2009, pp.117-118
- XXIV. **Performance comparison of pattern discovery methods on web log data**  
Bayir M. A., TOROSLU İ. H., COŞAR A.  
4th IEEE/ACS International Conference on Computer Systems and Applications (AICCSA-06), Sharjah, United Arab Emirates, 8 - 11 March 2006, pp.445-446
- XXV. **A new approach for reactive web usage data processing**  
Bayir M. A., TOROSLU İ. H., COŞAR A.  
22nd International Conference on Data Engineering Workshops, ICDEW 2006, Georgia, United States Of America, 3 - 07 April 2006
- XXVI. **Multiple query optimization with depth first branch and bound and dynamic query ordering**  
COŞAR A., LIM E. P., SRIVASTAVA J.  
CIKM-1993, United States Of America, 1 - 02 September 1993, pp.433-438

## **Metrics**

Publication: 46

Citation (WoS): 388

Citation (Scopus): 307

H-Index (WoS): 12

H-Index (Scopus): 11

## **Non Academic Experience**

ODTÜ

BİLKENT

ASELSAN