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### Education:

Ph.D.	2011-2015, Department of Computer Engineering, Graduate School of Natural and Applied Science, Karabuk University. Title: SAR Image Despeckling by Using Non-Local Means and Mixed Norms. Supervisors: Assoc.Prof.Dr. Baha SEN and Assoc.Prof.Dr. Fatih NAR.
M.S.	2008-2011, Department of Computer Engineering, Graduate School of Natural and Applied Science, Karabuk University
B.A.	2004-2008, Department of Computer Engineering, Faculty of Electrical and Electronics, Yildiz Technical University

### Academic Experiences:

Assoc. Professor	2023-....	Department of Software Engineering, Faculty of Engineering, Karabuk University, Turkey
Assist. Professor	2021-2023	Department of Software Engineering, Faculty of Engineering, Karabuk University, Turkey
Assist. Professor	2016-2021	Department of Computer Engineering, Faculty of Engineering, Karabuk University, Turkey
Visiting Professor	2017-2018	School of Electrical and Computer Engineering, Purdue University, Indiana, USA. Supervisor: Prof. Okan Ersoy
Research Assistant	2008-2016	Department of Computer Engineering, Faculty of Engineering, Karabuk University, Turkey

### İdari Görevler:

oordinator	2023-....	Karabuk University	Scientific Research Projects Coordination Unit
Commission Member	2019-....	Karabuk University	Scientific Research Projects Coordination Unit

### Research Projects:

#### Project Coordinator

1. Development of Deep Learning Based Software for Early Diagnosis and Treatment of Diseases in Panoramic Radiographs Used in Dentistry, Health Institutes of Türkiye (TUSEB) Project, 33480, 2024 Apr. – ....
2. Military Duty Scheduling with Large Neighborhood Search and Simulated Annealing, Karabuk University, SRCU, KBUBAP-24-YL-035, 2024 Mar. – ....
3. Analysis and Detection of Tooth Decay on Panoramic Radiography Images with Deep Learning Based Methods, Karabuk University, SRCU, KBÜBAP-23-YL-066, 2023 May – 2023 Oct.
4. Analysis of Y-balance Test Data Used in Sports Sciences with Machine Learning Methods, Karabuk University, SRCU, KBÜBAP-23-YL-040, 2023 Mar. – 2023 Oct.
5. Ensemble Learning-Based Approach to Classification of SAR Images for Land Cover and Land Use, Karabuk University, SRCU, KBÜBAP-23-YL-027, 2023 Mar. – 2023 Oct.
6. Development of a Hybrid Method for Image Fusion Using SAR and Optical Images, Karabuk University, SRCU, KBÜBAP-23-KP-032, 2023 Mar. – ....
7. Detection and Classification of Cancer on Bone Tissue Using Deep Learning Approaches, Tubitak 1002 Fast Support Project, 122E636, 2023 Feb. – 2024 Feb.
8. Real-Time Classification of Wood Materials Used in Massive Panel Production by Deep Learning Method, Karabuk University, SRCU, KBÜBAP-22-YL-096, 2022 Jul. – 2023 Feb.

9. Automatic Analysis of Dentistry Images using Artificial Intelligence (Dentiassist), Tubitak 1512 Techno-entrepreneurship Capital Support Program (BIGG), 2200272, 2020 Oct. – 2021 Nov.
10. Processing of Hyperspectral Images Using Dimension Reduction Methods, Karabuk University, SRCU, FDT-2020-2315, 2020 Jul. – 2021 Nov.
11. Classification and Visualization of Hyperspectral Images Using Particle Swarm Optimization Based Layered Space Insertion Method, Tubitak 1002 Fast Support Project, 120E404, 2020 Nov. – 2021 Nov.
12. EEG and Forehead EOG Based Emotion Analysis with Deep Neural Networks, Karabuk University, SRCU, FDK-2020-2309, 2020 Jul. – 2022 Aug.
13. Deep Instance Segmentation of UI Elements in Hand Drawn Sketches, Karabuk University, SRCU, FYL-2020-2156, 2020 Apr. – 2021 Nov.
14. Analysis of Large Dimensional Images Using Apache Spark, Karabuk University, SRCU, FYL-2019-2044, 2019 Mar. – 2020 Sep.
15. Classification of Big Data with Machine Learning Methods Using Apache Spark Technology, Karabuk University, SRCU, KBÜBAP-17-YL-072, 2017 Jan. – 2017 Nov.

#### Researcher

1. Deep Learning Based Artificial Intelligence Software for Incidental Kidney Cancer Screening and Diagnosis, Health Institutes of Türkiye (TUSEB) Project, 33756, 2024 Apr. – ....
2. Autosomal Dominant Polycystic Kidney Disease Magnetic Resonance Imaging-Based Artificial Intelligence Decision Support System: Preliminary Study on Prognostic Prediction and Treatment Selection, Health Institutes of Türkiye (TUSEB) Project, 33865, 2024 Apr. – ....
3. Designing a MOOC for Developing Preservice Teachers' Artificial Intelligence Literacy and Investigating its Effectiveness, Tubitak 1001 Project, 124K394, 2024 Apr. – ....
4. Estimation of Pressure Sore Risk for Patients in Intensive Care Unit Using Machine Learning Methods, Karabuk University, SRCU, KBÜBAP-23-KP-068, 2023 May – ....
5. Yildirim Beyazit University, SRCU, Project Number: YBU-BAP-590, A Hybrid Method for Noise Reduction on SAR Images, 2013 – 2015

#### Scholarship

1. The Scientific and Technological Research Council of Turkey, 1100548, Computer Aided Combustion Mechanism of Wooden Materials, 2011 – 2013

#### **Membership in Professional Organizations:**

SPIE (2014 – ....) and IEEE (2012 – ....)

#### **Research Areas:**

Artificial Intelligence, Machine Learning, Deep Learning, Image Processing, Optimization Algorithms, Parallel Programming, Big Data Analytics, Remote Sensing.

#### **Publications:**

##### **A. Articles published in international peer-reviewed journals:**

Ozbay, Y., Kazangirler, B.Y., **Ozcan, C.**, & Pekince, A., Detection of the separated endodontic instrument on periapical radiographs using a deep learning-based convolutional neural network algorithm, Australian endodontic journal : the journal of the Australian Society of Endodontology Inc, 10.1111/aej.12822, 2023.

Meseci, E., **Ozcan, C.**, Ozdemir, D., Dilmac, M., DenseNet-based ensemble network for land cover and land use classification of patch-based denoised SAR images, Arabian Journal of Geosciences, 16 (597) pp. 1-11, 2023.

Kazangirler, C.B., **Ozcan, C.**, Tekin, B.Y., UIBee: An improved deep instance segmentation and classification of UI elements in wireframes, Turk J Elec Eng & Comp Sci, 31 (3): 516-532, 2023.

Karaoglu, A., **Ozcan, C.**, Pekince, A., Yasa, Y., Numbering Teeth in Panoramic Images: A Novel Method Based on Deep Learning and Heuristic Algorithm, Engineering Science and Technology, an International Journal, Vol 37, Jan. 2023.

Cizmecci, H., **Ozcan, C.**, Enhanced deep capsule network for EEG-based emotion recognition, *Signal, Image and Video Processing*, 2022.

Cizmecci, H., **Ozcan, C.**, Durgut, R., Channel selection and feature extraction on deep EEG classification using metaheuristic and Welch PSD, *Soft Computing*, 26 (19): 10115-10125, Oct. 2022

Tekin, B.Y., **Ozcan, C.**, Pekince, A., Yasa, Y., An enhanced tooth segmentation and numbering according to FDI notation in bitewing radiographs, *Computers in Biology and Medicine*, 146 (105547): 1-10, Apr. 2022.

Elawady, I., **Ozcan, C.**, A new effective denoising filter for high density impulse noise reduction, *Turk J Elec Eng & Comp Sci*, 30 (4) pp. 1388-1403, Jan. 2022.

Karaoglu, A., **Ozcan, C.**, Pekince, A., Yasa, Y., Tekin, B.Y., Ozdemir, D., Automatic Dental Segmentation Module Supported by Artificial Intelligence for Dentistry Students Education, *Artificial Intelligence Theory and Applications* 1(2): 180-190 (Special Issue), 2021.

Yildirim, M.Z., **Ozcan, C.**, and Ersoy, O., Optimization based manifold embedding for hyperspectral image classification and visualization, *Remote Sensing Letters*, 12:11, 1158-1166, 2021.

**Ozcan, C.**, Ersoy, O., Ogul, I.U., Fast Texture Classification of Denoised SAR Image Patches Using GLCM on Spark, *Turk J Elec Eng & Comp Sci*, 28: 182-195, 2020.

**Ozcan, C.**, Ersoy, O., Enhanced multidimensional field embedding method by potential fields for hyperspectral image classification and visualization, *Electronics Letters*, 54(12): 756–758, 2018.

Erdem, Y., **Ozcan, C.**, Fast Data Clustering and Outlier Detection Using K-Means Clustering on Apache Spark, *Int. Journal of Advanced Computational Engineering and Networking*, 5(7):86-90, Jul. 2017.

Kazangirler, C. B., **Ozcan, C.**, Establishment of Educational Network among the Undergraduate with Mobile Application, *Int. Journal of Advances in Electronics and Computer Science*, 4(3):22-26, Mar. 2017.

**Ozcan, C.**, Sen, B., and Nar, F., Sparsity-Driven Despeckling for SAR Images, *IEEE Trans. Geosci. Remote Sens.*, 13 (1): 115-119, Nov. 2015.

## **B. Articles published in national peer-reviewed journals:**

Ozkan, M., Karas, I.R., **Ozcan, C.**, Web Tabanlı Uygulamaların Coğrafi Bilgi Sistemleri ile Desteklenmesi, *International Journal of Advanced Natural Sciences and Engineering Researches*, 7 (1) pp. 171-179, 2023.

Cilek, S., **Ozcan, C.**, Cakir, B.A., Analysis of Y-Balance Test Data Used in Sports Sciences with Machine Learning Methods, *European Journal of Engineering and Natural Sciences*, 2023.

Meseci, E., **Ozcan, C.**, Kazangirler, B.Y., Land Cover and Land Use Classification of Patch-Based Denoised SAR Images, *European Journal of Engineering and Natural Sciences*, 2023.

Ozkan, M., **Ozcan, C.**, Knot Detection and Segmentation with Deep Learning on Lamellas Used in Solid Panel Production, *Veri Bilimi Dergisi*, 5(2), 1-8, 2022.

Cakmakli, B.D., **Ozcan, C.** (2021) Automatic Ship Detection and Classification using Machine Learning from Remote Sensing Images on Apache Spark, *Journal of Intelligent Systems: Theory and Applications*, 4 (2) pp. 94-102.

Yildirim, M.Z., **Ozcan, C.**, and Ersoy, O., Hiperspektral Görüntülerin Sınıflandırılmasında Farklı Boyut İndirgeme Yöntemlerinin Karşılaştırılması, *Academic Platform Journal of Engineering and Science* 9-1, 159-165, 2021.

Köprü, E.Y., **Ozcan, C.**, Yapay Sinir Ağları ile Sıvı Ham Demir Tahmini ve 5.Yüksek Fırın Uygulaması, *Avrupa Bilim ve Teknoloji Dergisi Özel Sayı*, S. 155-162, Kasım 2020.

Cavusoglu, A., Sen, B., **Ozcan, C.**, and Gorgunoglu, S., Cropped Quad-Tree Based Solid Object Coloring With Cuda, *Mathematical and Computational Applications*, 18(3):301-312, 2013.

Ozcan, C., Bayir, R., and **Ozcan, C.**, Monitoring of Wooden Material Combustion Performance with Fuzzy Logic, *Technology*, 13(3), 189-199, 2010.

### **C. Papers presented at international scientific meetings and published on the book:**

Akyildiz, B., **Ozcan, C.**, Deep Learning Based Cervical Cells Classification from Pap Smear Images, 2nd International Conference on Information Technologies and Their Applications, Bakü, Azerbaijan, Nisan 2024.

Akyildiz, B., **Ozcan, C.**, Karas, I.R., Graph Cuts in Image Segmentation: A Review, 2nd International Conference on Information Technologies and Their Applications, Bakü, Azerbaijan, Nisan 2024.

Ozkan, M., **Ozcan, C.**, Image Processing Based Wood Defect Detection, 2nd International Conference on Information Technologies and Their Applications, Bakü, Azerbaijan, Nisan 2024.

Kazangirler, B.Y., Karas, I.R., **Ozcan, C.**, A Review of 3D Indoor Positioning and Navigation in Geographic Information Systems, The Eighth International Conference on Smart City Applications, Paris, France, Ekim 2023.

Ozdemir, D., **Ozcan, C.**, Pekince, A., Yasa, Y., A Novel Approach for Dental Caries Classification on Panoramic Radiography with Self-Attention Based Deep Learning Model, International Conference on Data Science and Security , Erzurum, Türkiye, Temmuz 2023.

Kazangirler, C.B., **Ozcan, C.**, Tekin, B.Y., Ön Eğitimli Evrişimli Sinir Ağları ile UI Öğelerinin Tespiti ve Sınıflandırılması, 5th International Conference on Data Science and Applications (ICONDATA'22) , (pp. 100-107), Muğla, Türkiye, Ekim 2022.

Tasar, D.E., **Ozcan, C.**, Koruyan, K., Autotrain Yaklaşımı İle Duygu Analizi, 2nd International Conference on Artificial Intelligence Studies, (pp. 30-38), Ankara, Türkiye, Eylül 2022.

Kazangirler, C.B., **Ozcan, C.**, Tekin, B.Y., Elle Çizilmiş Taslak Çizimlerde Kullanıcı Arabirimi Öğelerinin Derin Örnek Segmentasyonu, International Conference on Data Science and Applications (ICONDATA'21), Türkiye, Haziran 2021.

Tekin, B.Y., **Ozcan, C.**, Pekince, A., Yasa, Y., Karaoglu, A., Cilek, S., Ozdemir, D., Meseci, E., Tooth Detection and Numbering with Instance Segmentation in Panoramic Radiographs, International Conference on Interdisciplinary Applications of Artificial Intelligence (ICIDAAI), 1st, Online, 21-23 May, 2021.

Karaoglu, A. , **Ozcan, C.**, Pekince, A., Yasa, Y., Meseci, E., Cilek, S., Segmentation of Bitewing Intraocular X-Ray Images with Mask R-CNN Deep Learning Model, International Artificial Intelligence Health Congress 2021, 2nd, Online, Apr 16-18, 2021.

Celik, M.C., **Ozcan, C.**, Pekince, A., Atlas vertebra kemiğinin bölge tabanlı eşik yöntemi kullanılarak otomatik morfolometrik ölçümü, The International Symposium of Scientific Research and Innovative Studies (ISSRIS'21), (pp. 940-954), Türkiye, (Mart 2021)

Dolapci, B., **Ozcan, C.**, Renk ve Doku Özellikleri Kullanılarak Apache Spark Üzerinde Gemi Tespiti, International Conference on Data Science and Applications, 3rd, Page(s): 301-309, İstanbul, Turkey, 25-28 June, 2020.

Kayali, P.B., **Ozcan, C.**, Durgut, R., Game Design for Rehabilitation of Children with Disabilities by Using Depth Sensor, 2nd International Conference on Advanced Technologies, Computer Engineering and Science (ICATCES), 26-28 Apr, Alanya, Turkey, 2019

**Ozcan, C.**, Ersoy, O., Ogul, I.U., Classification of SAR Image Patches with Apache Spark Using GLCM Texture Features, International Conference on Advanced Technologies, 3rd World Conference on Big Data (WC-BIGDATA 2018), 28-30 Apr., Izmir, Turkey, 2018

Durgut, R., **Ozcan, C.**, Findik, O., Automatic Segmentation and Labelling of 3D Human Activities, International Conference on Advanced Technologies, Computer Engineering and Science (ICATCES), 11-13 May, Karabuk, Turkey, 2018

Ozturk, Y., **Ozcan, C.**, Implementation of NURBS curves on the LCD touch screen using FPGA, International Conference on Advanced Technologies, Computer Engineering and Science (ICATCES), 11-13 May, Karabuk, Turkey, 2018

Akinci, I.B., **Ozcan, C.**, Real-Time Automation System for Classifying Fruits with Image Processing, International Symposium on Industry 4.0 and Applications, 12-14 Oct., Karabuk, Turkey, 2017.

Yildirim, M. Z. and **Ozcan, C.**, Extraction of Greenhouse Areas with Image Processing Methods in Karabuk Province, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLII-4/W6, 107-109, 2017.

**Ozcan, C.**, Sen, B., Nar, F., GPU Efficient SAR Image Despeckling Using Mixed Norms, Proc. SPIE 9247: High-Performance Computing in Remote Sensing IV, Amsterdam, Netherlands, 2014.

Sen, B., **Ozcan, C.**, Aydin Atasoy, N., An Implementation for Quad-Tree Based Solid Object Coloring Using Cuda, Proceedings on 2nd World Conference on Information Technology, Antalya, Turkey, 2011.

Sen, B., Aydin Atasoy, N., **Ozcan, C.**, Performance Comparison of Gauss-Jordan Elimination Method Using Openmp and Cuda, Proceedings on 2nd World Conference on Information Technology, Antalya, Turkey, 2011.

**Ozcan, C.**, Sen, B., Investigation of the Performance of LU Decomposition Method Using CUDA, Proceedings on 2nd World Conference on Innovation and Software Development, Istanbul, Turkey, 2011.

**Ozcan, C.**, Bayir, R., Ozcan, C., Fuzzy Logic Graphical User Interface Software for Evaluation of Wooden Material Combustion Performance, Proceedings on 2nd International Symposium on Computing in Science & Engineering, P:483-485, Kusadası, Turkey, 2011.

**Ozcan, C.**, Uysal, A., Bayir, R., Real Time Control via Matlab/Simulink of DC-DC Buck Converter with Fuzzy Logic Controller, FUZZYSS'09: 1st International Fuzzy Systems Symposium, Ankara, Turkey, 1-2 October, 2009.

#### **D. Papers presented at national scientific meetings and published on the book:**

Gencay, S., **Ozcan, C.**, SAR-Optik Görüntü Füzyonunda SAR Benek Gürültüsünün Giderilme Etkisi, 30. IEEE SİNYAL İŞLEME ve İLETİŞİM UYGULAMALARI KURULTAYI, Karabük, Türkiye, Mayıs 2022.

Cizmeci, H., **Ozcan, C.**, Evrişimsel Sinir Ağları ile EEG Tabanlı Duygu Tanıma, IEEE Signal Processing and Communications Applications Conference (SIU), 28th, Online, 5-7 Oct, 2020.

Ogul, I.U., **Ozcan, C.**, Hakdagli, O, Keyword Extraction Based on word Synonyms Using WORD2VEC , IEEE Signal Processing and Communications Applications Conference (SIU), 27th, Sivas, Turkey, 24-26 Apr, 2019.

Hakdagli, O, **Ozcan, C.**, Ogul, I.U., Stream Text Data Analysis on Twitter Using Apache Spark Streaming, IEEE Signal Processing and Communications Applications Conference (SIU), 26th, Page(s): -, Izmir, Turkey, 2-5 May, 2018.

Ogul, I.U., **Ozcan, C.**, Hakdagli, O, Fast Text Classification with Naive Bayes Method on Apache Spark, IEEE Signal Processing and Communications Applications Conference (SIU), 2017 25th, Page(s): -, Antalya, Turkey, 15-18 May, 2017.

Ogul, I.U., **Ozcan, C.**, Hakdagli, O, Text Classification with Spark Support Vector Machine, 1. National Cloud Computing and Big Data Symposium B3S'17, Antalya, Turkey, 19-20 Ekim, 2017.

**Ozcan, C.**, Sen, B., Nar, F., Sparsity-Driven Despeckling Method with Low Memory Usage, IEEE Signal Processing and Communications Applications Conference (SIU), 2016 24nd, Page(s): 1329-1332, Zonguldak, Turkey, 16-19 May, 2016.

**Ozcan, C.**, Sen, B., Nar, F., Early-exit Optimization Using Mixed Norm Despeckling for SAR Images, IEEE Signal Processing and Communications Applications Conference (SIU), 2015 23nd, Page(s): 685 - 688, Malatya, Turkey, 16-19 May, 2015.

**Ozcan, C.**, Sen, B., Nar, F., Fast feature preserving despeckling, IEEE Signal Processing and Communications Applications Conference (SIU), 2014 22nd, Page(s): 1007 - 1010, Trabzon, Turkey, 23-25 April, 2014.

Sen, B., Menemencioglu, O., Atasoy, F. and **Ozcan, C.**, Clustered virtual class application, Academic Informatic, Malatya, 1-8, 2011.

**E. Books published in the international publishing houses:**

**Ozcan, C.,** Durgut, R., Ozen, S.O., Ozen, S., Çevrim İçi Yazılım Teknolojileri Lise, Ankara/Türkiye: TÜBİTAK Bilim ve Toplum Başkanlığı Popüler Bilim Kitapları Genel Yayın Yönetmenliği, 2023.

**Ozcan, C.,** Durgut, R., Ozen, S.O., Ozen, S., Çevrim İçi Yazılım Teknolojileri Ortaokul, Ankara/Türkiye: TÜBİTAK Bilim ve Toplum Başkanlığı Popüler Bilim Kitapları Genel Yayın Yönetmenliği , 2023.

Karaoglu, A., **Ozcan, C.,** Yapay Zekâ Kuramdan Uygulamaya, Nobel Akademik Yayıncılık, 1. Basım, Editörler: Cakir, H, Uluyol, C., ISBN: 978-625-427-802-0, 2022.

**Ozcan, C.,** Durgut, R., Ozen, S.O., Ozen, S., Deneyap Teknoloji Atölyeleri Yazılım Teknolojileri Ortaokul, TÜBİTAK Bilim ve Toplum Başkanlığı Popüler Bilim Kitapları Genel Yayın Yönetmenliği, Ankara/Türkiye, 2021

**Ozcan, C.,** Durgut, R., Ozen, S.O., Ozen, S., Deneyap Teknoloji Atölyeleri Yazılım Teknolojileri Lise, TÜBİTAK Bilim ve Toplum Başkanlığı Popüler Bilim Kitapları Genel Yayın Yönetmenliği, Ankara/Türkiye, 2021.