

## Prof. ALİ ZİYA ALKAR

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: G-5897-2013

ScopusID: 6506200184

Yoksis Researcher ID: 168558

### Education Information

Doctorate, University of Colorado at Boulder, Mühendislik Fakültesi, Elektronik Ve Bilgisayar Müh, United States Of America 1991 - 1995

Masters (Non-Thesis), University of Colorado at Boulder, Mühendislik Fakültesi, Elektronik Ve Bilgisayar Müh, United States Of America 1989 - 1991

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Elektrik Ve Elektronik Müh., Turkey 1984 - 1988

### Research Areas

Electrical and Electronics Engineering, Electronic, Printed Circuits, Thin Film, Thick Film and Hybrid ICs, Electronic Circuits, Engineering and Technology

### Academic Titles / Tasks

Professor, Hacettepe University, Mühendislik Fakültesi, Elektrik ve Elektronik Bölümü, 2017 - Continues

Associate Professor, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2008 - 2012

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1998 - 2008

Research Assistant, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1989 - 1998

### Academic and Administrative Experience

Hacettepe Üniversitesi, Mühendislik Fakültesi, 2016 - Continues

Hacettepe Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2010 - Continues

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

#### I. Network accelerator for parallel discrete event simulations

Karaca O. V., İMRE K. M., ALKAR A. Z.

- Journal of Supercomputing, vol.79, no.16, pp.18728-18747, 2023 (SCI-Expanded)
- II. **Improving pedestrian safety using combined HOG and Haar partial detection in mobile systems**  
Mihcioglu M. E., ALKAR A. Z.  
TRAFFIC INJURY PREVENTION, vol.20, no.6, pp.619-623, 2019 (SCI-Expanded)
  - III. **Enhancing the Accuracy for the Open-loop Resolver to Digital Converters**  
Karabeyli F. A., ALKAR A. Z.  
JOURNAL OF ELECTRICAL ENGINEERING & TECHNOLOGY, vol.13, no.1, pp.192-200, 2018 (SCI-Expanded)
  - IV. **Sensors in Assisted Living A survey of signal and image processing methods**  
Erden F., Velipasalar S., ALKAR A. Z., ÇETİN A.  
IEEE SIGNAL PROCESSING MAGAZINE, vol.33, no.2, pp.36-44, 2016 (SCI-Expanded)
  - V. **Contact-free measurement of respiratory rate using infrared and vibration sensors**  
Erden F., ALKAR A. Z., Cetin A. E.  
INFRARED PHYSICS & TECHNOLOGY, vol.73, pp.88-94, 2015 (SCI-Expanded)
  - VI. **A robust system for counting people using an infrared sensor and a camera**  
Erden F., ALKAR A. Z., Cetin A. E.  
INFRARED PHYSICS & TECHNOLOGY, vol.72, pp.127-134, 2015 (SCI-Expanded)
  - VII. **IP based home automation system**  
ALKAR A. Z., ROACH J., BAYSAL D.  
IEEE Transactions on Consumer Electronics, vol.56, no.4, pp.2201-2207, 2010 (SCI-Expanded)
  - VIII. **Highly accurate reduced iteration CORDIC processor algorithm**  
AYTÖRE E., Alkar A. Z.  
International Journal of Electronics, vol.97, no.2, pp.163-176, 2010 (SCI-Expanded)
  - IX. **An internet-based interactive embedded data-acquisition system for real-time applications**  
ALKAR A. Z., KARACA M. A.  
IEEE Transactions on Instrumentation and Measurement, vol.58, no.3, pp.522-529, 2009 (SCI-Expanded)
  - X. **Efficient embedded neural-network-based license plate recognition system**  
Caner H., GEÇİM H. S., ALKAR A. Z.  
IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.57, no.5, pp.2675-2683, 2008 (SCI-Expanded)
  - XI. **A GSM, Internet and speech controlled wireless interactive home automation system**  
Yuksekkaya B., KAYALAR A. A., TOSUN M. B., OZCAN M. K., Alkar A. Z.  
IEEE TRANSACTIONS ON CONSUMER ELECTRONICS, vol.52, no.3, pp.837-843, 2006 (SCI-Expanded)
  - XII. **An internet based wireless home automation system for multifunctional devices**  
Alkar A. Z., Buhur U.  
IEEE Transactions on Consumer Electronics, vol.51, no.4, pp.1169-1173, 2005 (SCI-Expanded)
  - XIII. **A hardware version of the RSA using the Montgomery's algorithm with systolic arrays**  
Alkar A. Z., SONMEZ R.  
INTEGRATION-THE VLSI JOURNAL, vol.38, no.2, pp.299-307, 2004 (SCI-Expanded)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Software Implementation Performances of Block Ciphers: A Systematic Literature Review**  
Zorba B. B., ALKAR A. Z., AYDOS M., Kolukisa-Tarhan A.  
7th International Workshop on Big Data and Information Security, IWBS 2022, Depok, Indonesia, 1 - 03 October 2022, pp.65-74
- II. **Indoor Localization and Tracking by Multi Sensor Fusion in Kalman Filter**  
Kaya S. B., ALKAR A. Z.  
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- III. **Real Time Object Recognition Using SIFT Algorithm on FPGA**  
Güven S., ALKAR A. Z.  
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April

2014, pp.1503-1506

**IV. LOCATION ESTIMATION IMPROVEMENT BY SIGNAL ADAPTIVE RSSI FILTERING**

Kaya S. B., ALKAR A. Z.

22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.1183-1186

**V. REAL-TIME WILDFIRE SMOKE DETECTION ON MOVING CAMERA**

Arslan I., ALKAR A. Z.

22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.1203-1206

**VI. BACKGROUND MODELLING FOR PAN TILT CAMERA**

Yildirim A., ALKAR A. Z., Ince K. G.

22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.1191-1194

**VII. Analysis on the Column Sum Boundaries of Decimal Array Multipliers**

Bozdas K., ALKAR A. Z.

55th IEEE International Midwest Symposium on Circuits and Systems (MWSCAS), Idaho, United States Of America, 5 - 08 August 2012, pp.318-321

**VIII. INTERNET CONTENT SEARCH USING FPGA'S**

Aydin I., ALKAR A. Z.

16th International conference on Information and Software Technologies (IT 2010), Kaunas, Lithuania, 21 - 23 April 2010, pp.196-198

**IX. Web based automated total electron content computation**

Ugurlu O., SEZEN U., ALKAR A. Z.

3rd International Conference on Recent Advances in Space Technologies, İstanbul, Turkey, 14 - 16 June 2007, pp.35-36

## Supported Projects

GÖKÇEN D., SAKA TANATAR B., BULU G., BAYSAL U., ÇADIRCI I., ALKAR A. Z., KUMBAY YILDIZ Ş., Project Supported by Higher Education Institutions, Elektrik ve Elektronik Mühendisliği Bölümü Laboratuvar Altyapısının Güçlendirilmesi, 2017 - 2021

ALKAR A. Z., Project Supported by Higher Education Institutions, 2017 International Conference on Field Programmable Technology, 2017 - 2018

ALKAR A. Z., Industrial Thesis Project, Sıradışı Durum Algılamaya Yönelik Akıllı IP Kamera Sistemi, 2009 - 2015

## Metrics

Publication: 22

Citation (WoS): 312

Citation (Scopus): 328

H-Index (WoS): 7

H-Index (Scopus): 8

## Non Academic Experience

Tubitak Bilten Uzay