

# Ahmet Karaküçük

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CONTACT INFORMATION	Bursa Uludag University, Gemlik Voc. School Department of Electricity & Energy Studies Gemlik Sunğıpek Asım Kocabıyık Campus, 16600, Gemlik, Bursa, Turkey	email: akarakucuk{at}uludag.edu.tr phone: +90 (224) 294 2677 (ext. 62230) fax: +90 (224) 512 34 93
	Bursa Uludag University, Faculty of Engineering Department of Electronic Engineering Gorukle Campus, 16059, Nilüfer, Bursa, Turkey	email: akarakucuk{at}uludag.edu.tr phone: +90 (224) 294 0646 web: <a href="https://avesis.uludag.edu.tr/akarakucuk">https://avesis.uludag.edu.tr/akarakucuk</a>
RESEARCH INTERESTS	Image Processing, Multimedia Forensics, Computer Vision, Pattern Recognition, Signal Processing, Circuits and Systems.	
EDUCATION	<b>Uludag University</b> , Turkey Ph.D., Electrical & Electronic Engineering Dissertation: "Advanced Methods for Source Authentication and Attribution in Digital Forensics" Advisor: Ahmet E. Dirik	July 2021
	<b>Uludag University</b> , Turkey M.S., Electronic Engineering Thesis: Estimation of signal amplitude on binary data communication with Laplace noise Advisor: Erdogan Dilaveroglu	September 2012
	<b>Uludag University</b> , Turkey B.A., Electronic Engineering	September 2009
ACADEMIC EXPERIENCE	<b>Uludag University</b> , Bursa, Turkey Lecturer & Assistant Director in Gemlik Voc. Sch.	August 2021 - present
	<b>New York University</b> , Abu Dhabi, UAE Research Supervisor	February 2016 - July 2016
	<b>New York University</b> , Abu Dhabi, UAE Visiting Research Assistant	July 2014 - September 2014
	<b>Uludag University</b> , Bursa, Turkey Research & Teaching Assistant in Dept. of Electronic Engineering	September 2009 - July 2019
COURSES TAUGHT (2019 - PRESENT)	<ul style="list-style-type: none"><li>• R Programming with Machine Learning Applications</li><li>• Computer Science Principles (AP)</li><li>• Autonomous and Driver Assistant Systems</li><li>• Wavelet Transformation and Multiscale Analysis</li><li>• Logical Circuits</li><li>• DC Circuit Analysis</li><li>• AC Circuit Analysis</li><li>• Transformers and DC Machines</li><li>• Automotive Electronics</li><li>• Fundamentals of Electrical Circuits</li><li>• Fundamentals of Electrical and Electronic Circuits</li></ul>	

- ASSISTED COURSES (2009 - 2019)
- Computer Tools for Electrical-Electronic Engineers
  - Introduction to Computer Programming
  - Computer Programming Laboratory
  - Digital Signal Processing Laboratory
  - Signals and Systems
  - Engineering Mathematics
  - Engineering Probability
- PROJECTS
- A New PRNU-Based Method for Source Camera Identification in Panoramic Images, The Scientific and Technological Research Council (TÜBİTAK) of Türkiye, no. 113E631 2024 Q2-2024 Q4 (Principal Investigator)
  - Media Forensics, DARPA and Air Force Research Laboratory (AFRL) of USA, no. FA8750-16-2-0173 2016-2017 (Consultant)
  - Image Source Anonymization, The Scientific and Technological Research Council of Turkey, no. 113E092, 2012-2013 (Researcher)
- PATENT APPLICATIONS
- "Source Camera Sensor Fingerprint Generation Method from Panorama Photos" (TPE & PCT 2021/018005)
  - "Anonymization system and method for digital images" (US Patent 10,297,011)
- SELECTED PUBLICATIONS
- A. Karaküçük, A. E. Dirik, "PRNU based source camera attribution for image sets anonymized with patch-match algorithm" 2019.
  - A. Karaküçük, A. E. Dirik, Hüsrev T. Sencar, Nasir D. Memon, "Recent advances in counter PRNU based source attribution and beyond", Proc. SPIE 9409 Media Watermarking, Security, and Forensics 2015.
  - A. Karaküçük, A. E. Dirik, "Adaptive photo-response non-uniformity noise removal against image source attribution", Digital Investigations, Vol. 12, p. 66-76, 2015.
  - A. E. Dirik, A. Karaküçük, "Forensic use of photo response non-uniformity of imaging sensors and a counter method", Optics Express, Vol. 22, No. 1, p. 470-481, 2014.
- HONORS AND AWARDS
- 2nd prize winner of TET R&D Project Brokerage Event 3, ICT Category, Istanbul, Mar. 2014
  - 2nd prize winner of Uludag University IV. Dissemination and R&D Event, Research Poster Competition, Bursa Dec. 2014
- LANGUAGES
- English: Speaking: Good, Reading: Very Good, Writing: Good