

# Dr. Asli Genctav, Phd.



## PERSONAL

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PLACE AND DATE OF BIRTH: Ankara, Turkey | 21 February 1985  
PHONE AND EMAIL: +90 531 2719860 | [aslikale@gmail.com](mailto:aslikale@gmail.com)  
MARITAL STATUS: Married to [Dr. Murat Genctav](#)

## RESEARCH INTERESTS

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Modeling and Analysis of 2D and 3D Shapes, Pattern Recognition, Computer Graphics

## EDUCATION

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- OCT 2018 Ph.D. in COMPUTER ENGINEERING,  
**Middle East Technical University**, Ankara, Turkey  
*Thesis: Shape Models Based on Elliptic PDEs, Associated Energies, and Their Applications in 2D and 3D*  
*Advisor: Prof. Sibel TARI*
- JAN 2010 M.Sc. in COMPUTER ENGINEERING,  
**Bilkent University**, Ankara, Turkey  
*Thesis: Segmentation and Classification of Cervical Cell Images*  
*Advisor: Assoc. Prof. Selim AKSOY*
- JUNE 2007 B.Sc. in COMPUTER ENGINEERING,  
**Middle East Technical University**, Ankara, Turkey  
Graduated with Honor Degree
- JUNE 2002 High School Diploma, Natural Sciences  
**Istanbul Atatürk Science High School**, Istanbul, Turkey  
*One of the top three science high schools in Turkey*

## EXPERIENCE

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- SEPT 2015 | **Graduate Researcher, TUBITAK 1001 Research Project, Ankara, Turkey**  
MAR 2014 | *Shape Analysis, Computer Vision*
- MAR 2014 | **Expert Software Engineer, HAVELSAN A.S., Ankara, Turkey**  
MAR 2013 | *Information and Security Technologies*  
*Remote Sensing and Image Processing Group*  
*Role: Worked in a computer vision project involving 2.5D reconstruction of a scene from multi-view remote sensing images and detection and modeling of buildings using both 2D and 2.5D data. Also, worked as the risk manager of the same project.*
- FEB 2013 | **Research and Teaching Assistant, Middle East Technical University, Ankara, Turkey**  
SEPT 2009 | *Computer Engineering Department*  
*Role: Assisted several courses including Introduction to Computer Eng. Concepts, C Programming, Introduction to C Programming, Logic Design, Formal Languages and Abstract Machines, Computer Organization*
- SEPT 2009 | **Research and Teaching Assistant, Bilkent University, Ankara, Turkey**  
SEPT 2007 | *Computer Engineering Department*  
*Role: Assisted the course Algorithms and Programming I*

## ACADEMIC ACTIVITIES

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PC MEMBER	ISMM 2019 <a href="#">14TH INTERNATIONAL SYMPOSIUM ON MATHEMATICAL MORPHOLOGY</a> <i>Saarland University, Germany, July 8-10, 2019</i>
WORKSHOP CO-ORGANIZER	EUSIPCO 2017 SATELLITE WORKSHOP <a href="#">CREATIVE DESIGN AND ADVANCED MANUFACTURING: AN EMERGING APPLICATION AREA FOR SIGNALS AND SYSTEMS</a> <i>Kos Island, Greece, September 2, 2017</i>
CO-ORGANIZER	<a href="#">WiSh SPECIAL SESSION: SHAPE MODELING AND APPLICATIONS</a> AWM RESEARCH SYMPOSIUM 2017 <i>University of California Los Angeles, USA, April 8, 2017</i>
WORKSHOP CO-ORGANIZER	A COLLABORATIVE RESEARCH WORKSHOP: WOMEN IN SHAPE-2 MODELING BOUNDARIES OF OBJECTS IN 2- AND 3-DIMENSIONS <i>Sirince, Turkey, June 6-12, 2016</i>
ADMINISTRATIVE ASSISTANT	<a href="#">COMPUTATIONAL PROBLEMS IN CREATIVE DESIGN WITH SHAPES</a> <i>Massachusetts Institute of Technology (MIT), USA, June 12-13, 2015</i>
ADMINISTRATIVE ASSISTANT	SIGGRAPH ASIA 2014 WORKSHOP CREATIVE SHAPE MODELING AND DESIGN <i>Shenzhen, China, December 3, 2014</i>

## HONORS

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SCHOLARSHIPS	PH.D. SCHOLARSHIP <i>The Scientific and Technological Research Council of Turkey (TUBITAK)</i>
	M.Sc. SCHOLARSHIP <i>The Scientific and Technological Research Council of Turkey (TUBITAK)</i>
INVITATIONS	Invited as a research group leader (Nov 2017, by Geraldine Morin) 2018 WiSh workshop in Trier, Germany

## REFERENCES

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### [Prof. Sibel Tari](#)

Middle East Technical University  
Department of Computer Engineering  
E-mail: stari@metu.edu.tr

### Prof. Halit Oguztuzun

Middle East Technical University  
Department of Computer Engineering  
E-mail: oguztuzn@ceng.metu.edu.tr

### Dr. Noha El-Zehiry

Research Scientist  
Siemens Healthcare, USA  
E-mail: noha.el-zehiry@siemens-healthineers.com

### [Prof. Tolga Can](#)

Middle East Technical University  
Department of Computer Engineering  
E-mail: tcan@ceng.metu.edu.tr

## [Link to Google Scholar Profile](#)

### PUBLICATIONS

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#### International Journal Publications

- 1 **Unsupervised Mesh Segmentation Using Volume and Surface Features**  
Murat Genctav, Asli Genctav, and Sibel Tari  
(Under Preparation)
- 2 **Discrepancy: Local/Global Shape Characterization with a Roundness Bias**  
Asli Genctav, and Sibel Tari  
Journal of Mathematical Imaging and Vision, 61(1):160-171, 2019  
DOI: [10.1007/s10851-018-0851-8](https://doi.org/10.1007/s10851-018-0851-8)
- 3 **A Non-Structural Representation Scheme for Articulated Shapes**  
Asli Genctav, and Sibel Tari  
Journal of Imaging, 4(10):115, 2018  
DOI: [10.3390/jimaging4100115](https://doi.org/10.3390/jimaging4100115)
- 4 **NonLocal via Local – NonLinear via Linear: A New Part-coding Distance Field via Screened Poisson Equation**  
Murat Genctav, Asli Genctav, and Sibel Tari  
Journal of Mathematical Imaging and Vision, 55(2):242-252, 2016  
DOI: [10.1007/s10851-015-0614-8](https://doi.org/10.1007/s10851-015-0614-8)
- 5 **A Reality Check for Radiometric Camera Response Recovery Algorithms**  
Ahmet Oguz Akyuz, and Asli Genctav  
Computers and Graphics, 37(7):935-943, 2013  
DOI: [10.1016/j.cag.2013.06.003](https://doi.org/10.1016/j.cag.2013.06.003)
- 6 **Unsupervised Segmentation and Classification of Cervical Cell Images**  
Asli Genctav, Selim Aksoy, and Sevgen Onder  
Pattern Recognition, 45(12):4151-4168, 2012  
DOI: [10.1016/j.patcog.2012.05.006](https://doi.org/10.1016/j.patcog.2012.05.006)

#### Edited Books

- 7 **Research in Shape Analysis**  
Asli Genctav, Kathryn Leonard, Sibel Tari, Evelyne Hubert, Geraldine Morin, Noha El-Zehiry, and Erin Chambers (Eds.)  
Association for Women in Mathematics Series, Vol 12, Springer, 2018

#### Book Chapters

- 8 **Adaptive Deflation Stopped by Barrier Structure for Equating Shape Topologies Under Topological Noise**  
Asli Genctav, and Sibel Tari  
A. Genctav et al. (eds), Research in Shape Analysis  
Association for Women in Mathematics Series, Vol 12, Springer, 2018  
DOI: [10.1007/978-3-319-77066-6\\_6](https://doi.org/10.1007/978-3-319-77066-6_6)
- 9 **A Non-local Measure for Mesh Saliency via Feature Space Reduction**  
Asli Genctav, Murat Genctav and Sibel Tari  
E. Gasparovic and C. Domeniconi (eds), Research in Data Science  
Association for Women in Mathematics Series, Vol 17, Springer, 2019  
DOI: [10.1007/978-3-030-11566-1\\_7](https://doi.org/10.1007/978-3-030-11566-1_7)

## Refereed Conference Presentations

- 10 **Using Data Analysis Tools to Form a Representation for Articulated Shapes without Extracting Shape Components (in Turkish)**  
Asli Genctav, and Sibel Tari  
6th International GAP Engineering Conference (GAP2018)  
Sanliurfa, Turkey, November 2018
- 11 **A Product Shape Congruity Measure via Entropy in Shape Scale Space**  
Asli Genctav, and Sibel Tari  
EUSIPCO 2017 Satellite Workshops  
Kos Island, Greece, September 2017
- 12 **3D shape correspondence under topological noise (in Turkish)**  
Asli Genctav, Yusuf Sahillioglu, and Sibel Tari  
24th Signal Processing and Communication Application Conference (SIU)  
Zonguldak, Turkey, May 2016  
[DOI: 10.1109/SIU.2016.7495762](https://doi.org/10.1109/SIU.2016.7495762)
- 13 **Diffusion is Ubiquitous: A Volume Decomposition Application for 3D Printing**  
Asli Genctav, Murat Genctav, and Sibel Tari  
First Thermal and Fluids Engineering Summer Conference  
New York City, USA, August 2015  
[DOI: 10.1615/TFESC1.tia.012942](https://doi.org/10.1615/TFESC1.tia.012942)
- 14 **Evaluation of Radiometric Camera Response Recovery Methods**  
Asli Genctav, and Ahmet Oguz Akyuz  
SIGGRAPH Asia 2011 Posters  
Hong Kong, 2011  
[DOI: 10.1145/2073304.2073320](https://doi.org/10.1145/2073304.2073320)
- 15 **Segmentation of Cervical Cell Images**  
Asli Kale, and Selim Aksoy  
20th IAPR International Conference on Pattern Recognition  
Istanbul, Turkey, August 2010  
[DOI: 10.1109/ICPR.2010.587](https://doi.org/10.1109/ICPR.2010.587)
- 16 **Cell nuclei segmentation in pap smear test images (in Turkish)**  
Asli Kale, Selim Aksoy, and Sevgen Onder  
IEEE 17th Signal Processing and Communications Applications Conference (SIU)  
Antalya, Turkey, April 2009  
[DOI: 10.1109/SIU.2009.5136479](https://doi.org/10.1109/SIU.2009.5136479)
- 17 **Stylistic Document Retrieval for Turkish**  
Daniya Zamalieva, Firat Kalaycilar, Asli Kale, Selen Pehlivan, and Fazlı Can  
24th International Symposium on Computer and Information Sciences  
Northern Cyprus, September 2009  
[DOI: 10.1109/ISCIS.2009.5291902](https://doi.org/10.1109/ISCIS.2009.5291902)
- 18 **Mining of Remote Sensing Image Archives Using Spatial Relationship Histograms**  
Firat Kalaycilar, Asli Kale, Daniya Zamalieva, and Selim Aksoy  
IEEE International Geoscience and Remote Sensing Symposium (IGARSS 2008)  
Boston, Massachusetts, July 2008  
[DOI: 10.1109/IGARSS.2008.4779416](https://doi.org/10.1109/IGARSS.2008.4779416)