SELIM S. BALCISOY
Sabanci University
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EDUCATION

2001 PhD in Computer Science from Swiss Federal Institute of Technology, Lausanne, EPFL, advisor D. Thalmann

1996 Engineering Diploma from Swiss Federal Institute of Technology Zurich, ETH

PROFESSIONAL HISTORY

Sabanci University, Turkey, Vice Dean for Research and Industry Collaboration
> Professor, 2020 to present
> Director of Behaviour Analysis and Visualization Laboratory (BAVLAB) a joint research lab with MIT Media Lab, Human Dynamics Group

VisioThink Inc, Turkey, Partner, 2006 to 2018
> VisioThink is a Business Intelligence and Visual Analytics company focusing on geographical business data processing. VisioThink provides software solutions to finance, retail and telecom companies.

IBM Research Almaden, Visiting Scientist, September – November 2014
> I collaborated with IBM Research Visualization and UI Researchers and had opportunity to network with Bay Area Researchers leading to BAVLAB in 2015.

Sabanci University, Turkey, Assistant Professor, 2004 - 2012
> Established the Computer Graphics Laboratory of Sabanci University with close collaboration with local and international industry and funding agencies.

Nokia Research Centre, USA: Senior Research Engineer, July 2001 to February 2004
> Represented Nokia at W3C and 3GPP on mobile graphics. Drafted the augmented reality roadmap of Nokia in 2003.

EPFL, Switzerland: Research Assistant, July 1996 to July 2001

Webster University, Switzerland: Adjunct Faculty, Fall 2000

CURRENT RESEARCH INTERESTS

Computational Social Sciences

Information Visualization and Visual Analytics

Virtual and Augmented Reality

Cultural Heritage

TEACHING EXPERIENCE

Sabanci University:
Introduction to Data Science, undergraduate course, 3 hours a week
Since 2017 every Spring Semester (approx. 170 - 210 students per term)

Computer Graphics, undergraduate course, 3 hours a week
Since 2004 every Fall Semester.

Computing and Arts, undergraduate course, 3 hours a week
Since 2004 every Spring Semester (together with Elif Ayiter, Murat Germen)

Exploratory Data Analysis and Visualization, graduate course
Since 2015 every Spring Semester

Simulation and Animation of Motion, graduate course, 3 hours a week
Spring Semester, 2004, 2005 (together with Serhat Yesilyurt)

Computer Graphics and Visualization, graduate course, 3 hours a week
Since 2004 every second year

Virtual Reality, graduate course, 3 hours a week
Since 2006 every second year

Graduation Projects for every year 2-5 projects per year

Webster University:
Java Programming, undergraduate class, 3 hours a week, Fall 2000

ADVISING GRADUATE STUDENTS

PhD candidates:

Y. Findik, H. Boz

Master of Science candidates:

B. Koseoglu, M. Gürkan, A. Özdemir, B. Canlı

GRADUATE STUDENTS (4 PhD / 17 MS)

All of the PhD alumni are in active research roles (Phillips Research (NL), TUBITAK Space and Turkish Navy) and most of the M.S. graduates have joined prestigious universities for PhD Studies (UC Santa Barbara, University of Bergen, University of North Carolina at Chapel Hill, Koç University), three of them are now full faculty members at University of Warwick (UK), Yaşar University (TR), and Gebze Teknik University (TR) and one of them is a Research Fellow at NASA Jet Propulsion Laboratory.

1. Basak Alper obtained her M.S. degree in 2006. 'Dynamic Visualization of Geographic Networks using Surface Deformations'

2. Selcuk Sumengen obtained his M.S. degree in 2006. 'Real-time Deformable Objects in Collaborative Virtual Environments'

3. Ceren Kayalar obtained her M.S. degree in 2006. 'Natural Interaction Framework for Pedestrian Navigation Systems on Mobile Devices'

4. Can Ozmen obtained his M.S. degree in 2007. 'A Software System to Work with 3D Models in Cultural Heritage Research '

5. Uraz Turker obtained his M.S. degree in 2008 'Visualization of Large Temporal Social Network Datasets'

6. Billur Engin obtained her M.S. degree in 2008 'Introduction of Level of Detail to 3D Thematic Maps'

7. Cagatay Turkay obtained his M.S. degree in 2009 'An Information Theoretical Approach to Crowd Simulation'

8. Serdar Cakıcı obtained his M.S. degree in 2009 'A Virtual Reality based approach to Protein-Protein Docking Problem'

9. Berkay Kaya obtained his M.S. degree in 2009 'Multi-Resolution Visualization of Geographic Network Traffic'

10. Merve Cayli obtained her M.S. degree in 2009 'Interactive Visualization of Heterogenous Social Networks Using Glyphs'

11. Demet Yılmaz obtained her M.S. degree in 2010 'Visual Analysis of Multiple Route Deviations'

12. Emre Koç obtained his M.S. degree in 2011 'Estimation of Environmental Lighting from Human Face for Illumination of Augmented Reality Scenes'

13. Ekrem Serin obtained his PhD degree in 2012 'Information Theory Assisted Data Visualization and Exploration'

14. Serdar Adalı obtained his M.S. degree in 2012 'Visualization for Exploratory Analysis of Spatio-Temporal Data'

15. Selçuk Sümengen obtained his PhD degree in 2013 'Entropy Guided Visualization and Analysis of Multivariate Spatio-temporal Data Generated by Physically based Simulation'

16. Tolga Eren obtained his PhD degree in 2013 'Scene Creation and Exploration in Outdoor Augmented Reality'

17. Candemir Döğer obtained his M.S. degree in 2015 'Interactive Multiview Information Visualization in Tablet-Sized Touch Devices For Scientific Data'

18. Dogacan Bilgili obtained his M.S. degree in 2017 'A data physicalization pipeline enhanced with augmented reality'

19. Erdem Kaya obtained his PhD degree in 2017 'Exploration space of human-data interaction'

20. Yasin Findik obtained his M.S. degree in 2018 'Introducing assistive analytical agent for exploratory and decision making in analytical multi-user sessions'

21. Hasan Alp Boz obtained his M.S. degree in 2019 'A Visual Multivariate Dynamic EgoCentric Network Exploration Tool'

ADMINSTRATIVE DUTIES

Faculty of Engineering and Natural Sciences

Vice Dean since 2018

Computer Science Program:

Computer Science and Engineering Program Coordinator 2008 - 2010

SERVICE ACTIVITIES

Editorial Board Memberships

1. The Visual Computer, Springer, since 2008 (SCI)
2. Metaverse Creativity, Intellect, since 2009
3. International Journal of Creative Interfaces and Computer Graphics, IGI-Global, since 2009

Conference and Program Chair

1. Computer Graphics International, 2008

2. CASA, 2013
3. International Symposium on Computer and Information Sciences 2006, Istanbul, Turkey

Program Committee Member for more than 20 International Conferences.

Professional Organizations

1. IEEE Computer, Turkey Chapter Chair 2007 - 2008

Expertises

1. Expert for Turkish National Science Foundation (TUBITAK)
2. Expert for South Africa National Research Foundation (NRF)

Reviewer for:
- SIGGRAPH
- IEEE Transactions on Visualization and Computer Graphics
- EUROGRAPHICS
- IEEE VR
- IEEE Transactions on Information Technology in Biomedicine
- Journal of Computer Animation and Virtual Worlds
- Computers and Graphics
- Visual Computing
- Journal of Visual Languages Computing
- Design Studies

Invited talks:

1. "Creating Virtual Environments in a Multidisciplinary Classroom", E-Transformation in Learning; Sabanci University; April 2005; Digital Tasarim Gunleri; Yildiz Teknik University; June 2005; Computer Vision Lab, EPFL, Switzerland September 2005;
2. 'Building a Visual Analytics Workflow for Location Based Services', University of Bologna, IBM Research Almaden, 2013
3. 'Visual Analytics and Storytelling', IBM Research Almaden, 2014, CMU, Aksanat, Mimarlar Odası
4. 'Behavioural Analysis Best Practices', various Turkish companies 2018

AWARDS / PATENTS

Data for Refugees Challenge 2018, Social Integration Honourable Mention together with MIT Media Lab

IBM Faculty Award, 2007 and 2014

Turkish National Science Foundation Career Award, 2006

Granted Patents:

1. World Patent 7,064,760. Method and apparatus for extending structured content to support streaming, Capin, Tolga K.; Balcisoy, Selim S. (filed 2003, granted June 2006)

Filed Patent Applications:

1. A System Based On Multi-Sensory Learning and EEG Biofeed Back for Improving Reading Ability, with Müjdat Çetin and Günet Eroğlu, PCT/TR2017/050572, 2017
2. Progressive downloading of timed multimedia content, with M. Karczewicz and T. Capin, 2004

RESEARCH PROJECTS

Over 15 projects (8 of them directly funded from companies) and 1.5M EUR funds generated since 2004.

National Projects

2019 – 2020 Principal Investigator in Aksigorta (An Insurance Company) research grant 'Big Data Approaches to Damage Claim Analytics.' (320.000 EUR)

2019 – 2021 Principal Consultant to Sabanci Holding - Advanced Analytics (Second Largest Conglomerate in Turkey)

2020 – 2024 Co-PI to H2020-MSCA-ITN MENELAOS-NT (470.000 EUR for Sabancı University)

Completed Projects

2016 – 2017 Principal Investigator in Aksigorta (An Insurance Company) research grant 'Big Data Approaches to Insurance Customer Segmentation.' (120.000 EUR)

2016 – 2017 Principal Investigator in Aksigorta (An Insurance Company) research grant 'Big Data Approaches in Insurance Industry.' (225.000 EUR)

2016 – 2017 Principal Investigator in Sigorta Bilgi ve Gözetim Merkezi (National Insurance Data Bureau) research grant 'Big Data Approaches to Attack Fraud Cases on Car Insurance.' (115.000 EUR)

2015-2017 Principal Investigator in Akbank (National Top 3 Bank) research grant 'Exploratory Data Analytics for Financial Services.'

2015-2017 Principal Investigator in Turkish National Science Foundation research grant call 1001 'A Visual Analytics System based on Spatial Augmented Reality and Physical Visualizations' (200.000 EUR for 2015-2017)

2012-2014   Principal Investigator in Turkish National Science Foundation and Italian Ministry of Foreign Affairs researcher exchange project 'Augmented Reality for Research, Field and Museums' (9.000 EUR for 2012-2014)

2010-2012   Principal Investigator for two Turk Telekom research grant on Mobile Augmented Reality (150.000 EUR for 2010 – 2012)

2009-2011   Principal Investigator in Turkish National Science Foundation Research Project 'An Information Theoretical Approach to Social Network Visualization' (70.000 EUR for 2009-2011)

2006-2011   Principal Investigator in Turkish National Science Foundation Career Award Project "Development of an Outdoors Augmented Reality System for Cultural Heritage Applications" (132.500 EUR for 2006-2011)

2007-2009   Principal Investigator in Turkish National Science Foundation and Italian Ministry of Foreign Affairs researcher exchange project 'Virtual and Augmented Reality in Simulation and Training (VARSIT)' (9.000 EUR for 2007-2009)

2006-2008   Co-Principal Investigator for Sabanci University Internal Research Grant "Novel Representation and interaction techniques of complex datasets" (118.000 EUR for 2006-2008)

2006-2008   Investigator in Turkish National Science Foundation Research Project "GIS supported 3D Analysis for Management Science" (31.600 EUR for 2006-2008)

2005-2007   Investigator in Turkish National Science Foundation Research Project "Computer Aided Reconstruction in Archaeology" (15.000 EUR for 2005-2007)

National Projects and Sabanci University Projects are awarded in Turkish Lira. The amounts have been converted to Euro using the exchange rate of 1 EUR = 2 TL.

PUBLICATIONS

Book Chapters
(9 Book Chapters, 4 with Springer Nature)

1. Albert Ali Salah, M Tarık Altuncu, Selim Balcisoy, Erika Frydenlund, Marco Mamei, Mehmet Ali Akyol, Kerem Yavuz Arslanlı, Ivon Bensason, Christine Boshuijzen-van Burken, Paolo Bosetti, Jeremy Boy, Tugba Bozcaga, Seyit Mümin Cilasun, Oğuz Işık, Sibel Kalaycıoğlu, Ayse Seyyide Kaptaner, Ilker Kayi, Özgün Ozan Kılıç, Berat Kjamili, Huseyin Kucukali, Aaron Martin, Marco Lippi, Francesca Pancotto, Daniel Rhoads, Nur Sevencan, Ervin Sezgin, Albert Solé-Ribalta, Harald Sterly, Elif Surer, Tuğba Taşkaya Temizel, Semih Tümen, Ismail Uluturk, 'Policy Implications of the D4R Challenge' Guide to Mobile Data Analytics in Refugee Scenarios, **Springer Nature, 2019**.

2. Michiel Bakker, Daoud Piracha, Patricia Lu, Keis Bejgo, Mohsen Bahrami, Yan Leng, Jose Balsa-Barreiro, Julie Ricard, Alfredo Morales, Vivek Singh, Burcin Bozkaya, Selim Balcisoy and Alex Pentland, 'Measuring fine-grained multidimensional integration using mobile phone metadata: the case of Syrian refugees in Turkey' Guide to Mobile Data Analytics in Refugee Scenarios, **Springer Nature, 2019**.

3. Kaya, Erdem, Mustafa Tolga Eren, Candemir Doger, and Selim Saffet Balcisoy. "Building a visual analytics tool for location-based services." In Geospatial research: Concepts, methodologies, tools, and applications, pp. 620-642. IGI Global, 2016.

4. Türk, Alican and Balcısoy, Selim and Bozkaya, Burçin, "An interactive tool for visualizing and analyzing spatio-temporal data" Geo-Intelligence and Visualization through Big Data Trends, Bozkaya, Burçin and Singh, Vivek Kumar (eds.), Hershey, PA: IGI Global, August 2015, 121-149

5. Turkay C., Koc E., Balcisoy S., "An Information Theoretical Approach to Crowd Simulation". Digital Urban Modeling and Simulation. 2012. S. Müller Arisona, G. Aschwanden, J. Halatsch, P. Wonka (eds.). Communications in Computer and Information Science (CCIS), Volume 242, **Springer**

6. Ayiter, Elif and Balcısoy, Selim and Germen, Murat, "3 case studies: a hybrid educational strategy for ART/SCI collaborations"Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, Volume 30, Part 2: **Springer** 2010

7. Kayalar C., Balcisoy S., "Natural Interaction Framework for Navigation Systems on Mobile Devices" Advances In Human Computer Interaction, Austria, 2008. I-Tech Education and Publishing

8. Sümengen, Selçuk and Eren, Tolga Mustafa and Yeşilyurt, Serhat and Balcısoy, Selim, "A multi-resolution mesh representation for deformable objects in collaborative virtual environments" Communications in Computer and Information Science, 1, Volume 21, Computer Vision and Computer Graphics. Theory and Applications, Part 1, III, Pages 75-87

9. Ozmen C., Balcisoy S., "A Software System to Work with 3D Models in Cultural Heritage Research" Beyond Illustration. Digital 2D and 3D Technologies as Tools of Discovery in Archaeology eds. Anastasia Dakouri-Hild and Bernard Frischer, Archaeopress (Oxford, UK)

Volumes Edited & Special Issues

1. Tolga K. Çapin, Selim Balcisoy, Daniel Thalmann: Editorial, Journal of Visualization and Computer Animation 24(3-4): 153-154 (2013)
2. Albert Levi, Erkay Savas, Hüsnü Yenigün, Selim Balcisoy, Yücel Saygin ISCIS 2006, 21th International Symposium, Istanbul, Turkey, November 1-3, 2006, Proceedings. Lecture Notes in Computer Science 4263 Springer 2006,

Refereed Journal Publications
(18 SCI papers with 14 of them with SNIP over 1.000)
(Google Scholar H-index 13, Citations 631)

1. Bahrami, Mohsen, Burcin Bozkaya, and Selim Balcisoy 'Using Behavioral Analytics to Predict Customer Invoice Payment' Big Data (2019), 8:1, 1-13 (SCI, 5 Year Impact: 3,479, Q2, SNIP: 1,124)
2. Kaya, Erdem, Xiaowen Dong, Yoshihiko Suhara, Selim Balcisoy, Burcin Bozkaya, Alex 'Sandy' Pentland. "Behavioral attributes and financial churn prediction." EPJ Data Science 7, no. 1 (2018): 41.
(SCI, 5 Year Impact: 3,789, Q1, SNIP: 1,361)
3. Eren, Mustafa Tolga, and Selim Balcisoy. "Evaluation of X-ray visualization techniques for vertical depth judgments in underground exploration." The Visual Computer 34, no. 3 (2018): 405-416.
(SCI, 5 Year Impact: 1,558, Q3, SNIP: 1,085)
4. Kaya, Erdem, Sema Alacam, Yasin Findik, and Selim Balcisoy. "Low-fidelity prototyping with simple collaborative tabletop computer-aided design systems." Computers & Graphics 70 (2018): 307-315.
(SCI, 5 Year Impact: 1,595, Q3, SNIP: 1,026)
5. Turkay, Cagatay, Erdem Kaya, Selim Balcisoy, and Helwig Hauser. "Designing progressive and interactive analytics processes for high-dimensional data analysis." IEEE Transactions on Visualization and Computer Graphics 23, no. 1 (2017): 131-140.
(SCI, 5 Year Impact: 3,756, Q1, SNIP: 2,212)
6. Emre Koç, Selim Balcisoy: Light Source Estimation in Mobile Augmented Reality Scenes by Using Human Face Geometry. IEICE Transactions 97-D(8): 1974-1982 (2014) .
(SCI, 5 Year Impact: 0,457, Q4, SNIP: 0,486)
7. Uraz Cengiz Türker, Selim Balcisoy: A visualisation technique for large temporal social network datasets in Hyperbolic space. J. Vis. Lang. Comput. 25(3): 227-242 (2014).
(SCI, 5 Year Impact: 1,186, Q3, SNIP: 1,109)
8. Merve Cayli, Murat Can Cobanoglu, Selim Balcisoy: GlyphLink: An interactive visualization approach for semantic graphs. J. Vis. Lang. Comput. 24(6): 463-471 (2013)
(SCI, 5 Year Impact: 1,186, Q3, SNIP: 1,109)
9. Ekrem Serin, Selcuk Sumengen, Selim Balcisoy: Representational image generation for 3D objects. The Visual Computer 29(6-8): 675-684 (2013)
(SCI, 5 Year Impact: 1,558, Q3, SNIP: 1,085)
10. Kamer Ali Yüksel, Alp Yucebilgin, Selim Balcisoy, Aytül Erçil: Real-time feature-based image morphing for memory-efficient impostor rendering and

animation on GPU. The Visual Computer 29(2): 131-140 (2013)
(SCI, 5 Year Impact: 1,558, Q3, SNIP: 1,085)

11. Oktar Ozgen, Selcuk Sumengen, Marcelo Kallmann, Carlos F. M. Coimbra, Selim Balcisoy: Simulating colliding flows in smoothed particle hydrodynamics with fractional derivatives. Journal of Computer Animation and Virtual Worlds 24(5): 511-523 (2013)
(SCI, 5 Year Impact: 0,794, Q4, SNIP: 0,699)

12. Ekrem Serin, Serdar Hasan Adali, Selim Balcisoy: Automatic path generation for terrain navigation. Computers & Graphics 36(8): 1013-1024 (2012)
(SCI, 5 Year Impact: 1,595, Q3, SNIP: 1,026)

13. Turkay C., Koç E., Balcisoy S., "Integrating information theory in agent-based crowd simulation behavior models", The Computer Journal, 2011,
(SCI, 5 Year Impact: 0,915, Q3, SNIP: 0,741)

14. Bozkaya B., Yanik S., Balcisoy S. "A GIS-Based Optimization Framework for Competitive Multi-Facility Location-Routing Problem" Networks and Spatial Economics, 10 (3). pp. 297-320. September 2010
(SCI, 5 Year Impact: 2,683, Q2, SNIP: 1,494)

15. Turkay C., Koc E., Balcisoy S., "An information theoretic approach to camera control for crowded scenes", The Visual Computer, Volume 25, Numbers 5-7, pp 451-459,
(SCI, 5 Year Impact: 1,558, Q3, SNIP: 1,085)

16. Cakici S., Sumengen S., Sezerman U., Balcisoy S., "DockPro: A VR-based tool for protein-protein docking problem ", International Journal of Virtual Reality, 2009, 8(2), pp 19-23

17. Tolga K. Çapin, Selim Balcisoy, Daniel Thalmann, Nadia Magnenat-Thalmann, Tat-Seng Chua: Editorial, The Visual Computer, Volume 24, Numbers 7-9, July 2008, Springer
(SCI, 5 Year Impact: 1,558, Q3, SNIP: 1,085)

18. Balcisoy S., Ayiter E., "Trans-disciplinary avenues in education: Computing and Art", Spinger Lecture Notes in Computer Science 3942/2006, pp 80-89
(SCI, Impact: 0,402, Q4, SNIP: 0,274)

19. Sannier G., Balcisoy S., Magnenat-Thalmann N., Thalmann D., "VHD: A System for Directing Real-Time Virtual Actors", The Visual Computer, Volume 15, Number 7/8, p.320-329, 1999.
(SCI, 5 Year Impact: 1,558, Q3, SNIP: 1,085)

Submitted Papers

1. Koseoglu, Baran; Kaya, Erdem; Balcısoy, Selim; Bozkaya, Burçin, "ST Sequence Miner: Visualization and Mining of Spatio-temporal Event Sequences", IEEE Transactions on Visualization and Computer Graphics (SCI, 5 Year Impact: 3,756, Q1)
2. Kaya, Erdem; Alpan, Eray; Balcisoy, Selim; Bozkaya, Burcin 'Segmentation-based Independent Insurance Agency Evaluation' Journal of Risk and Insurance.
(SCI, 5 Year Impact: 2,148, Q2)
3. Bahrami, Mohsen, Yasin Findik, Burcin Bozkaya, and Selim Balcisoy. "Twitter Reveals: Using Twitter Analytics to Predict Public Protests." arXiv preprint arXiv:1805.00358 (2018). PLoS One
(SCI, 5 Year Impact: 3,337, Q2)

Refereed Conference Publications & Presentations
(24 of them at Web of Science Conference Proceedings Citation Index-Science)

1. Alfredo Morales, Michiel Bakker, Isabella Loaiza-Saa, Burçin Bozkaya, Mohsen Bahrami, Selim Balcisoy, Ingmar Weber, Joao Palotti, Jose Balsa-Barreiro, Alex Pentland. 'Assessing the Syrian and Venezuelan refugee crises with mobile phone and social media data' Complex Systems for the Most Vulnerable, 2019, Singapore
2. Michiel Bakker, Daoud Piracha, Patricia Lu, Keis Bejgo, Mohsen Bahrami, Yan Leng, Jose Balsa-Barreiro, Julie Ricard, Alfredo Morales, Vivek Singh, Burcin Bozkaya, Selim Balcisoy and Alex Pentland. 'Measuring fine-grained multidimensional integration using mobile phone metadata: the case of Syrian refugees in Turkey' NetMob 2019, Oxford
3. Balcisoy Selim. 'A Computational Approach to Independent Agent Segmentation in the Insurance Sector' Ninth International Conference on Complex Sciences 2018, Boston
4. Bozkaya Burçin and Balcisoy Selim. 'A Computational Approach to Independent Agent Segmentation in the Insurance Sector' Ninth International Conference on Complex Sciences 2018, Boston
5. Eroglu, Günet, Bariş Ekici, Fehim Arman, Mert Gürkan, Müjdat Çetin, and Selim Balcisoy. "Can we predict who will respond more to neurofeedback with resting state EEG?" In 2018 Medical Technologies National Congress (TIPTEKNO), pp. 1-4. IEEE, 2018. **(Conference Proceedings Citation Index-Science)**
6. Eroğlu, Günet, Serap Aydın, Müjdat Çetin, and Selim Balcisoy. "Improving cognitive functions of dyslexies using multi-sensory learning and EEG neurofeedback." In 2018 26th Signal Processing and Communications Applications Conference (SIU), pp. 1-4. IEEE, 2018.
7. Eroğlu, Günet, Müjdat Çetin, and Selim Balcisoy. "Electroencephalographic identifiers of reading abilities in Turkish language." In 2018 26th Signal Processing and Communications Applications Conference (SIU), pp. 1-4. IEEE, 2018.

8. Alpan, Eray, Göktürk Gökhan, Bozkaya Burçin and Balcisoy Selim. 'Insurance Fraud Detection: A Network Modelling and Behavioural Analytics Approach'. International Conference on Computational Social Science, Cologne, 2017

9. Kaya, Berkay, and Selim Balcisoy. "Multi-Resolution Visualization of Geographic Network Traffic." In International Conference on Augmented Reality, Virtual Reality and Computer Graphics, pp. 52-71. Springer, 2016. **(Conference Proceedings Citation Index-Science)**

10. Kaya, Erdem and Toka, Mert and Bayrak, Attila and Bozkaya, Burçin and Balcısoy, Selim," Incorporating tabletop visual analytics into the decision-making process: a case study of retail banking ", BusinessVis 2015, Chicago: IEEE

11. Toka, Mert and Balcısoy, Selim," Konumsal verilerin fiziksel görselleştirmeler ile incelenmesi ", 6. Ulusal Savunma Uygulamaları Modelleme ve Simülasyon Konferansı (USMOS 2015), Ankara, Türkiye: ODTÜ (Ortadoğu Teknik Üniversitesi), November 2015

12. Erk Ediz Akyigit, Tugkan Cengiz, Onur Burak Yildirim, Selim Balcisoy: Visual exploratory tool for storyline generation. IEEE VAST 2014: 215-216 **(Conference Proceedings Citation Index-Science)**

13. Mustafa Tolga Eren, Murat Cansoy, Selim Balcisoy: Multi-view augmented reality for underground exploration. VR 2013: 117-118 **(Conference Proceedings Citation Index-Science)**

14. Ekrem Serin, Selim Balcisoy: Entropy Based Sensitivity Analysis and Visualization of Social Networks. ASONAM 2012: 1099-1104 **(Conference Proceedings Citation Index-Science)**

15. Mustafa Tolga Eren, Selim Balcisoy, 'A Sensor Based 3D Annotation Authoring Tool for Outdoor Field Applications.' Gavrilova, Marina L. (ed.), 2011 International Conference on Cyberworlds (CW), USA: IEEE Computer Society, October 2011, 17-22 **(Conference Proceedings Citation Index-Science)**

16. Eren, Tolga Mustafa and Kayalar, Ceren and Balcısoy, Selim "An image based modelling and annotation tool for outdoor cultural heritage studies ", 39th Annual International Conference on Computer Applications and Quantitative Methods in Archaeology – CAA2011, Beijing

17. Yüksel, Kamer Ali and Erçil, Aytül and Cansoy, Murat Çelik and Balcısoy, Selim, "Augmenting conversations through context-aware multimedia retrieval based on speech recognition", 5th Workshop on Human-Computer Interaction and Information Retrieval (HCIR 2011), Mountain View, CA: Google, October 2011

18. Taner B., Balcisoy S., Yildizli C., Nergiz A. O., "An efficient and scalable meeting minutes generation and presentation technique", HCI 2011, Lecture Notes in Computer Science, Springer, 2011 **(Conference Proceedings Citation Index-Science)**

19. Yüksel, Kamer Ali and Erçil, Aytül and Yücebilgin, Alp and Balcısoy, Selim, "Using image morphing for memory-efficient impostor rendering on GPU", Gavrilova, Marina L. (ed.), 2011 International Conference on Cyberworlds (CW), USA: IEEE Computer Society, October 2011, 197-202 **(Conference Proceedings Citation Index-Science)**

20. Serin, Ekrem and Döğer, Candemir and Balcısoy, Selim, " 3D object exploration using viewpoint and mesh saliency entropies ", Gelenbe, Erol and

Lent, Ricardo and Sakellari, Georgia (eds.), 26th International Symposium on Computer and Information Sciences (ISCIS 2011), London, UK: Springer, September 2011, 299-305 **(Conference Proceedings Citation Index-Science)**

21. Serin, Ekrem and Adali, Serdar Hasan and Balcısoy, Selim, " Entropy assisted automated terrain navigation using traveling salesman problem ", 10th International Conference on Virtual Reality Continuum and Its Applications in Industry (VRCAI 2011), Hong Kong: ACM (Association for Computing Machinery) 2011

22. Kayalar, Ceren and Balcısoy, Selim, 'Look at the same screen, see differently: a discussion of view management methods in mobile augmented reality scenarios ", Mobile Augmented Reality: Design Issues & Opportunities (MobileHCI 2011), Stockholm: ACM 2011

23. Cagatay Turkay, Emre Koc, Selim Balcisoy, "An Information Theory Based Behavioral Model for Agent-Based Crowd Simulations", ISCIS 2010, Lecture Notes in Electrical Engineering, 2010, Volume 62, Part 10, pp 379-382

24. Cagatay Turkay, Emre Koc, Selim Balcisoy, "Adaptive Behavioral Modeling for Crowd Simulations", The 22nd Annual Conference on Computer Animation and Social Agents, June 2009.

25. Elif Ayiter, Selim Balcisoy, Murat Germen, Bulut Sakcak and Fethi Ozdol. "The Reflexive Campus: A Study of Dynamic Architecture in a Virtual World", 2009 International Conference on Cyberworlds, CA, IEEE: IEEE Computer Society, September 2009 57-62

26. Cobanoglu M.C., Kindiroglu A. A., Balcisoy S., "Comparison of mobile device navigation information display alternatives from the cognitive load perspective ", HCI 2009, Lecture Notes in Computer Science, pp 149-157 **(Conference Proceedings Citation Index-Science)**

27. Cayci, A.; Sumengen, S.; Turkay, C.; Balcisoy, S.; Saygin, Y. "Temporal Dynamics of User Interests in Web Search Queries", Advanced Information Networking and Applications Workshops, 2009, pp 762 – 767 **(Conference Proceedings Citation Index-Science)**

28. Balcısoy, Selim, Can Özmen, "Bi-manual interactive tools for cultural heritage researchers", 2008 International Conference on Cyberworlds, CA, IEEE: IEEE Computer Society, September 2008, 439-446 **(Conference Proceedings Citation Index-Science)**

29. Engin B., Cetinkaya M., Ayiter E., Germen M., Balcisoy S., "Maestro: Design Challenges for a Group Calendar", 12th International Conference Information Visualisation 2008, London, UK. **(Conference Proceedings Citation Index-Science)**

30. Balcısoy, Selim, Ceren Kayalar, "Augmented reality based user interfaces to assist fieldwork on excavation sites", CAA 2008, Budapest, Hungary: Archaeolingua Foundation, April 2008

31. Elif E. Ayiter, Selim Balcisoy, Murat Germen, Ismail Kasarci, Uraz C. Turker, Merve Cayli: "Space Frames": Using space, color and animation in the visualization of complex graph systems. ICAT 2007, Proceedings. IEEE Computer Society 2007. P. 286-287 **(Conference Proceedings Citation Index-Science)**

32. Kayalar C., Balcisoy S., "Changing Interfaces using Natural Arm Posture - A New Interaction Paradigm for Pedestrian Navigation Systems on Mobile Devices", Spinger Lecture Notes in Computer Science 4555/2007, pp 431-440 **(Conference Proceedings Citation Index-Science)**

33. Bozkaya B., Balcisoy S., Engin B., 'GIS as a Decision support System for Visualizing and Solving Logistics Problems', 22nd European Conference on Operational Research 2007, Prague, Czech Republic

34. Alper B., Sumengen S., Balcisoy S., 'Dynamic Visualization of Geographic Networks Using Surface Deformations with Constraints' Computer Graphics International 2007, Petropolis, Brazil

35. Engin B. H., Koc E., Sumengen S., Balcisoy S., 'Yüksek Çözünürlüklü Arazi Verilerinin Grafik İşlemcisi Kullanılarak Görselleştirilmesi' USMOS 2007, Ankara, Turkey (Turkish)

36. Alper B., Sumengen S., Balcisoy S., 'Dynamic Visualization of Geographic Networks Using Surface Deformations with Constraints' Geoinformatics 2007 Conference, Poster Session, San Diego, USA

37. Ayiter E., Balcisoy S., Germen., Artut S., "Propagating Collaboration: An Instructional Methodology for Artists and Engineers", Ben Shneiderman, Gerhard Fischer, Elisa Giaccardi, Michael Eisenberg (Eds.): Proceedings of the 6th Conference on Creativity & Cognition, Washington, DC, USA, June 13-15, 2007. ACM 2007, ISBN 978-1-59593-712-4 **(Conference Proceedings Citation Index-Science)**

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