Hasan Davulcu

School of Computing, Informatics and Decision Systems Engineering, Arizona State University.

Office address: 699 South Mill Avenue, Suite 553, Tempe, AZ 85281
web: `http://www.public.asu.edu/~hdavulcu/`, email: `hdavulcu@asu.edu`
Office Tel.: +1-480-965-6385

Last update: May 14, 2017

RESEARCH INTERESTS

Socio-Cultural Modeling: *Social Networks, Community Detection, Sentiment Analysis, Scaling*; **Behavioral Analytics:** *Fraud Detection, Financial Networks, Anomaly Detection*; **Social Media and Web Mining:** *Information Extraction, Information Integration, Personalization and Recommendation Systems.*

EDUCATION

- **Stony Brook University** (1995 – 2002), New York, USA
  Doctor of Philosophy in **Computer Science**
  Thesis: A Game Logic for Workflows of Non-cooperative Services
  Advisor: Prof. Michael Kifer and Prof. I.V. Ramakrishnan

- **Stony Brook University** (1993 – 1995), New York, USA
  Master of Science in Engineering in **Computer Science**

- **Middle East Technical University (METU)** (1989 – 1993), Ankara, Turkey
  Diploma (B.S.) in **Mathematics**; Rank in graduating class: 2/160

ACADEMIC EMPLOYMENT

- **Associate Professor**, Aug. 2009 – up to now
  Arizona State University, Tempe, USA
  Appointment: School of Computing, Informatics and Decision Systems Engineering.
  Director: Cognitive Information Processing Systems Laboratory (CIPSLab)
  Co-Director: ASU Center for Assured and Scalable Data Engineering (CASCADE)
  Honors Faculty, Honours College at ASU

- **Assistant Professor**, Aug. 2002 – 2009
  Arizona State University, Tempe, USA
  Appointment: School of Computing, Informatics and Decision Systems Engineering.
  Director: Cognitive Information Processing Systems Laboratory (CIPSLab)
  Honors Faculty, Honours College at ASU

PROFESSIONAL EMPLOYMENT

- **VP of Technology**, XSB Inc, Aug. 1998 – Aug. 2002, Stony Brook, NY.
  Principal investigator of a NSF SBIR Phase I award titled "Xtractica: A System for Extracting Coherent Data from Text". Also funded by U.S. Defense Logistics Agency (DLA).

- **Intern and Consultant**, Bell Labs, Lucent Technologies June 1997 - August 1998, NJ, USA
  Designed and implemented a Layered Architecture for Querying Dynamic Web Content.

RESEARCH ACTIVITIES AND EXPERIENCE

- **Active research programs**

(AP1) **New Analytics for Measuring and Countering Social Influence and Persuasion of Extremist Groups**, **PI: H. Davulcu (30%)**, ASU; Funding source: DOD-MINERVA, Award # N00014-16-1-2015, Period: Dec. 2015 - Jun. 2019, **Recognized Amount: \$719,820**. (Collaborative with co-PI's: Li, Shakarian, ASU, Total Award: \$2,399,401)

   Brief Description: The overall aim of this project is to develop novel measurement and analytic methods for detecting Information Cascades (ICs) and automated approaches informed by social science to determine what types of information goes viral and under what circumstances.

(AP2) **LookingGlass Multimedia: Radio and Programmable Antenna for Social Media Monitoring**, **PI: H. Davulcu (50%)**, ASU; Funding source: DOD - Office of Naval Research (ONR), Award # N00014-15-1-2722, Period: Jun. 2015 - May. 2018, **Recognized Amount: \$492,821**. (Collaborative with co-PI's: Li, ASU, Total Award: \$985,643)

   Brief Description: LookingGlass is a social movements tracker tool which is able to detect radical hot-spots of social networks, their narratives and activities, and socio-cultural, economic, and political drivers. LookingGlass is bootstrapped by highly trained area experts with social science and subject matter expertise as well as local cultural knowledge.

(AP3) **PFI:BIC: Fraud Detection via Visual Analytics: An Infrastructure to Support Complex Financial Patterns-based Real-Time Services Delivery**, **PI: H. Davulcu (50%)**, ASU; Funding source: National Science Foundation (NSF), Award # 1430144, Period: Jun. 2014 - Jul. 2018, **Recognized Amount: \$400,000**. (Collaborative with co-PI: Candan, ASU, Total Award: \$800,000)

   Brief Description: The proposed platform will enable integration and enrichment of limited private financial data with larger publicly available data sets to detect fraud and reduce losses due to fraudulent transactions. The data linkage and financial pattern discovery platform which is to be developed via visual analytics will enable "smart" fraud detection and prevention services.

(AP4) **Emerging Trends in Muslim Discourse: The Rise of Religious Intolerance Sectarianism and Shariah Consciousness**, **co-PI: H. Davulcu (50%)**, ASU; Funding source: DOD - Office of Naval Research (ONR), Award # N00014-14-1-0477, Period: Jun. 2014 - May. 2017, **Recognized Amount: \$424,999**. (Collaborative with PI: Woodward, ASU, Total Award: \$849,998)

   Brief Description: The objectives of this project are to: 1) document and explain the emergence of sectarianism and Shariah in extremist Muslim discourse, and the elements of oppositional discourse; and 2) advance the development of computational tools for tracking the dynamics of group formation and fragmentation in virtual communities around these issues as part of a larger effort to develop socio-cultural predictive modeling and analytics.

(AP5) **II-New: GEARS - An Infrastructure for Energy-Efficient Big Data Research on Heterogenous and Dynamic Data**, **co-PI: H. Davulcu (9%)**, ASU; Funding source: National Science Foundation (NSF), Award # 1629888, Period: Sep. 2016 - Aug. 2019, **Recognized Amount: \$67,500**. (Collaborative with PI: Zhao, ASU, co-PI: Liu,Ren,Candan ASU, Total Award: \$750,000)

   Brief Description: This project aims to develop the needed computational infrastructure to support GEARS (an enerGy-Efficient big-datA Research System) for studying heterogeneous and dynamic data using heterogeneous computing and storage resources.

(AP6) **Planning Grant: I/UCRC for Assured and SCAlable Data Engineering (CASCADE)**, **co-PI: H. Davulcu (30%)**, ASU; Funding source: National Science Foundation (NSF), Award # 1464579, Period: Apr. 2015 - May. 2017, **Recognized Amount: \$4,687**. (Collaborative with PI: Candan, ASU, co-PI: Ahn, ASU, Total Award: \$15,625)

   Brief Description: This planning grant's objective is to organize a meeting with industry partners and the universities to outline a research agenda for CASCADE. The industrial/academic partnerships of CASCADE will enable new algorithms, tools, and systems that securely manage, share, access, and analyze heterogeneous sets of static or transient data to accommodate diverse security requirements, including trust, availability, confidentiality, and integrity.

Completed research programs

(CP1) **Funding Allies for the War of Words: Mapping the Diffusion and Influence of Counter-Radical Muslim Discourse**, co-PI: H. Davulcu (25%), ASU; Funding source: DOD - Minerva, Award # N00014-15-1-2924, Period: Apr. 2009 - May. 2015, **Recognized Amount: $1,471,703**. (Collaborative with PI: Woodward, Co-PI: Corman, ASU Total Award: $5,886,813)

Brief Description: The project is characterized by an integrative approach that brings together a broad range of disciplines and methodsIslamic and area studies; field research and discourse analysis; survey research; computer science and statisticsand triangulates methods to reveal patterns in CVE discourse at the local, regional, and global levels.

(CP2) **Through The Looking Glass To More Effective Programming**, **PI: H. Davulcu (100%)**, ASU; Funding source: United States Agency for International Development (USAID), Award # NAT013-1, Period: Jul. 2016 - Aug. 2016, **Recognized Amount: $73,011**.

Brief Description: Libya Transition Initiative (LTI) by Chemonics International, supports activities that reinforce stability and build an inclusive and peaceful democratic future in Libya. We developed a LookingGlass Libya platform to allow for evaluating the spread and impact of LTI2 social media activities.

(CP3) **Mapping the Extremist and Counter Extremist Online Narrative with a focus on deep dive on Facebook Social Media Analytics PI: H. Davulcu (100%)**, ASU; Funding source: The United Nations Development Programme (UNDP-BD), Award # UNDP-BD/CPS/2016/017, Period: Nov. 2016 - Dec. 2016, **Recognized Amount: $127,475**.

Brief Description: A comprehensive social-media monitor for UNDP in Bangladesh to identify propaganda outlets, and social media followers, and trending narratives of extremist and counter-extremist groups.

(CP4) **DURIP: Big Data Server for Social Media Analytics: Social-Radio and Programmable Antenna Implementation**, **PI: H. Davulcu (50%)**, ASU; Funding source: DOD - Office of Naval Research (ONR)), Award # N00014-15-1-2722, Period: Aug. 2015 - Aug. 2016, **Recognized Amount: $49,686**. (Collaborative with co-PI's: Baral, ASU, Total Award: $99,373)

Brief Description: In this DURIP project we purchased a CLOUDOOP RAX HADOOP SOLUTION (PN: PS-CDPRAX) for big data integration, processing and visualization.The custom configured high performance computing server came with 6 Data Nodes, 288 TB High Performance SATA III Enterprise Storage Space, 768 GB High Performance ECC Registered Memory, Total 120 x Intel Xeon E5 2600 v2 Cloud Ready Processor Cores with MapR Hadoop Distribution.

(CP5) **The Foresight Initiative**, **co-PI: H. Davulcu (2%)**, ASU; Funding source: DOD-National Geospatial-Intelligence Agency (NGA), Period: Jun. 2014 - Jul. 2015, **Recognized Amount: $63,230**. (Collaborative with PI: Bliss, Co-PI: Maciejewski, White, Westerhoff, Bliss, Corman, Liu, Dirks, Thies, Lobo, Cooke, Ahn, Finn, ASU, Total Award: $3,161,513)

Brief Description: Climate change and its effects on global landscapes and human welfare create exceptional complexities for policy makers. A new research partnership called the Foresight Initiative is developing tools to inform decision makers as they confront wicked problems such as the web of climate change, water security and national security.

(CP6) **CAREER: A Logic-Based Dynamic Policy Model for Adaptive Workflow Management**, **PI: H. Davulcu (100%)**, ASU; Funding source: National Science Foundation (NSF), Award # 0644459, Period: Mar. 2007 - Feb. 2012, **Recognized Amount: $413,112**.

Brief Description: The main thrust of his project is the development of proof theoretic reasoning and analysis algorithms to enable system integrators and end users to leverage diverse and heterogeneous Web services through local policy specifications.

(CP7) **Identifying Terrorist Narratives and Counter-Narratives: Embedding Story Analysts in Expeditionary Units**, **co-PI: H. Davulcu (10%)**, ASU; Funding source: DOD - Office of Naval Research (ONR), Period: Apr. 2011 - Mar. 2014, **Recognized Amount: $290,605**. (Collaborative with PI: Steven Corman, Co-PI: Bernardi, Trethewey, Cheong, Goodall, Torrens, ASU, Total Award: $2,906,050)

(CP8) **MiNC: NSDL Middleware for Network- and Context-aware Recommendations**, **co-PI: H. Davulcu (25%)**, ASU; Funding source: National Science Foundation (NSF), Award # 1043583, Period: Jan. 2011 - Dec. 2012, **Recognized Amount: $127,292**. (Collaborative with PI: Candan, ASU, co-PI: Sundaram, ASU, Total Award: $509,168)

(CP9) **MAISON: Middleware for Accessible Information Spaces on NSDL**, **co-PI: H. Davulcu (20%)**, ASU; Funding source: National Science Foundation (NSF), Award # 0735014, Period: Jan. 2008 - Dec. 2010, **Recognized Amount: $99,994**. (Collaborative with PI: Candan, ASU, co-PI: Sundaram, Hedgpeth, Li, ASU, Total Award: $499,970)

(CP10) **AOC: Archaeological Data Integration for the Study of Long-Term Human and Social Dynamics**, **co-PI: H. Davulcu (12%)**, ASU; Funding source: National Science Foundation (NSF), Award # 0624341, Period: Nov. 2006 - Oct. 2010, **Recognized Amount: $89,998**. (Collaborative with PI: Kintigh, ASU Co-PI: Candan, Kambhampati Spielmann, Nelson, ASU Total Award: $749,984)

(CP11) **MURI: Adaptable Situation-Aware Secure Service-Based (AS3) Systems**, **co-PI: H. Davulcu (20%)**, ASU; Funding source: DOD - Office of Naval Research (ONR), Period: Jul. 2004 - Jun. 2006, **Recognized Amount: $198,566**. (Collaborative with PI: Yau, ASU Co-PI: Mukhopadhyay, Total Award: $992,834)

(CP12) **Enabling the Study of Long-Term Human and Social Dynamics: A Cyberinfrastructure for Archaeology**, **co-PI: H. Davulcu (5%)**, ASU; Funding source: National Science Foundation (NSF), Award # 0433959, Period: Oct. 2004 - Aug. 2006, **Recognized Amount: $5,000**. (Collaborative with PI: Kintigh, Co-PI: Candan, Kambhampati Spielmann, Nelson, ASU, Total Award: $100,000)

(CP13) **A System for Discovering Bioengineered Threats By Knowledge Base Driven Mining of Toxin Data**, **PI: H. Davulcu (100%)**, ASU; Funding source: DOD - U.S. Army), Period: Dec. 2003 - Jul. 2005, **Recognized Amount: $115,639**.

AWARDS AND HONORS

- Fulton Exemplar Faculty, Arizona State University (2014).

  https://tinyurl.com/l9juwd3

- IEEE Social Computing Best Paper Award (2013).

  for the paper titled "*MultiScale Modeling of Islamic Organizations in UK.*"

- HSCB Focus Exceptional Scientific Achievement Award (2011)

  CAPT Dylan Schmorrow, MSC, USN, Ph.D Deputy Director, Directorate Office of the Assistant Secretary of Defense (Research and Engineering): "*On behalf of the HSCB Government Program Management Team, I would like to personally recognize your exceptional scientific achievements and contributions to the field of social cultural modeling. Your Minerva project, "Finding Allies for the War of Words: Mapping the Diffusion and Influence of Counter-Radical Muslim Discourse," has significantly increased our understanding in countering violent extremist ideologies.*"

  http://www.nytimes.com/2011/10/11/science/11predict.html

- NSF CAREER Award for the project titled: "*A Logic-Based Dynamic Policy Model for Adaptive Workflow Management.*" (2007)

  Citation from NSF website: "*The Faculty Early Career Development (CAREER) Program is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards in support of junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research within the context of the mission of their organizations.*"

  https://www.nsf.gov/awardsearch/showAward?AWD_ID=0644459

- First Prize, Intel+UC Berkeley Technology Entrepreneurship Challenge, ASU (2005)

- World Wide Web (WWW) Conference Best Paper Runner-Up (2004)

- Long Island Software Award, for Intelligent Agent Systems, XSB Inc, NY. (2002)

- Catacosinos Fellowship for Excellence in Computer Science, Stony Brook, NY (1998)

- Fulbright Full Scholarship for M.S. in Computer Science, (1993)

IN THE NEWS

- New York Times, Oct. 10, 2011: "*Government Aims to Build a Data Eye in the Sky*" by JOHN MARKOFF `http://www.nytimes.com/2011/10/11/science/11predict.html`

- research.asu.edu, November 12, 2013: "*Mining for extremism*" by Allie Nicodemo `http://researchmatters.asu.edu/stories/mining-extremism-2927`

- intheloop.engineering.asu.edu, November 18, 2014: "*FULTON EXEMPLAR FACULTY WILL HELP SHAPE THE FUTURE OF OUR SCHOOLS*" by Paul Johnson `https://tinyurl.com/l9juwd3`

- techcrunch.com, Sep 27, 2015: "*Researchers From Arizona State University Take The War Online Back To ISIS*" by John Holden `https://tinyurl.com/kaucwvo`

- THE IRISH TIMES , Sep 10, 2015: "*The war online: how the West is playing catch-up with Islamic State*" by John Holden `https://tinyurl.com/m56qt9u`

- International Business Times , July 08, 2015: "*ISIS Propaganda: Researchers Track, Neutralize Terrorists' Twitter Recruitment With Defense Department Backing*" by JEFF STONE `https://tinyurl.com/mj782cp`

- HOMELAND SECURITY, July 08, 2015: "*Arizona State University Awarded Minerva Grant To Research Terrorist Use Of Social Media* " By: Krysta Dodd, Staff Writer `http://goo.gl/P8wV25`

- asunow.asu.edu, June 26, 2015: "*ASU earns Minerva grant to study terrorists' social-media recruiting power*" By: Joe Kullman `https://tinyurl.com/m4u2ukj`

- fullcircle.asu.edu, Jun 26, 2015: "*COUNTERING SOCIAL INFLUENCE AND PERSUASION OF EXTREMIST GROUPS*" By: Sharon Keeler `https://fullcircle.asu.edu/research/countering-social-influence-extremist-groups/`

- www.devex.com, 01 August 2016: "*Through the looking glass: Harnessing big data to respond to violent extremism*" By: By Michele Piercey, Carolyn Forbes, Hasan Davulcu `https://tinyurl.com/h539blh`

PUBLICATIONS AND INTELLECTUAL PROPERTY

My publications are available online at `http://www.public.asu.edu/~hdavulcu` through links.
Convention for name ordering: Student names usually appear first. Among both student authors and non-student authors, the ordering of the names is based on the effort invested in writing the paper. The advisor of the major contributing author is typically listed as the last author.

SUMMARY OF PUBLICATIONS AND INTELLECTUAL PROPERTY

- Abstracts: 0
- Books Co-Edited: 0
- Book Chapters Published: 6
- Invited Book Chapters Published: 0
- Invited Book Chapters Submitted / In Preparation: 0
- Co-Editor for Thematic Journal Issues: 0
- Invited Journal Publications: 0

- Invited Conference Papers: 0
- Refereed Conference Papers: 57
- Technical Papers (unrefereed): 0
- Total Journal Publications (Published, In Press, and /or Accepted): 16
- Journal Publications (Published, In Press, and /or Accepted) from ASU: 16
- Journal Publications Prior to ASU (All Published): 0
- Journal Editorials: 0
- Manuscripts Submitted / In Revision from ASU: 1
- Manuscripts in Preparation from ASU (to be submitted before [August 15, 2017]): 1
- Intellectual Property: Patents 2; Patents pending 1

Citation information: As provided by Google Scholar on 05/11/2017.

	All	Since 2012
Citations	1682	565
h-index	20	12
i10-index	33	17

For citation information see `https://scholar.google.com/citations?user=P9IivpwAAAAJ&hl=en`.

LEGEND
(*) Corresponding Author
Bold Font: ASU Ph.D. Student
Underline: ASU Master's Student
(∞) Other/Visiting Student
($\times$) ASU Postdoctoral Researcher

Peer-Reviewed Journal Publications

(J1) **Alostad, H.***, Davulcu, H., 2017, Directional Prediction of Stock Prices using Breaking News on Twitter, *Web Intelligence Journal*, **15**(1), pp. 339-357.

(J2) **Yang, P.***, Davulcu, H., Zhu, Y., He, J., 2016, A Generalized Hierarchical Multi-Latent Space Model for Heterogeneous Learning, *IEEE Transactions on Knowledge and Data Engineering*, **28**(12), pp. 3154-3168.

(J3) **Lu, Y.*, Steptoe, M., Burke, S., Wang, H.**, Tsai, J.$\times$, Davulcu, H., Montgomery, D., Corman, S.R., Maciejewski, R., 2016, Exploring Evolving Media Discourse Through Event Cueing, *IEEE Transactions on Visualization and Computer Graphics*, **22**(1), pp. 220-229.

(J4) **Alashri, S.*, Alzahrani, S.**, Tsai, J.$\times$, Corman, S., Davulcu, H., 2016, "Climate Change" Frames Detection and Categorization Based on Generalized Concepts, *International Journal of Semantic Computing (IJSC)*, **10**(2), pp. 147-166.

(J5) **Ozer, M.*, Keles, I.**, Toroslu, H., Karagoz, P., Davulcu, H., 2016, Predicting the Location and Time of Mobile Phone Users by Using Sequential Pattern Mining Techniques, *The Computer Journal, Oxford University Press*, **59**(6), pp. 908-922.

(J6) **Wang, Z.*, Lai, M.J., Lu, Z., Fan, W.**, Davulcu, H., Ye, J., 2015, Orthogonal Rank-One Matrix Pursuit for Low Rank Matrix Completion, *SIAM Journal on Scientific Computing (SISC)*, **37**(1), pp. A488-A514.

(J7) **Kim, N.*, Tikves, S.**, Wang, Z., Githens-Mazer, J., Davulcu, H., 2013, MultiScale Modeling of Radical and Counter-Radical Islamic Organizations, *ASE Human Journal*, **2**(3), pp. 182-194.

(J8) **Gokalp, S.***, Temkit, M., Toroslu H., Davulcu, H., 2013, Partitioning and Social Scaling of Political Debates using Signed Bipartite Graphs, *ASE Human Journal*, **2**(2) pp. 112-124.

(J9) **Tikves, S.*, Banerjee, S., Temkit, H., Gokalp, S.**, Davulcu, H., Sen, A., Corman, S., Woodward, M., Rohmaniyah, I, and Amin, A., 2013, A System for Ranking Organizations Using Social Scale Analysis, *Social Network Analysis and Mining Journal*, **3**(3), pp. 313-328.

(J10) **Ahmed, S.***, Davulcu, H., **Tikves, S.**, Nair, R., Zhao, Z., 2012, BioEve Search: A Novel Framework to Facilitate Interactive Literature Search, *Advances in Bioinformatics*, vol. 2012, Article ID 509126, pp. 1-12.

(J11) **Vadrevu, S.***, **Gelgi F.**, Davulcu, H., 2007, Information Extraction from Web Pages using Presentation Regularities and Domain Knowledge, *World Wide Web*, **10**(2), pp. 157-179.

(J12) Yau S.S.*, Davulcu, H., Mukhopadhyay, S., **Huang, D.,Gong, H.**, **Singh, P.**, **Gelgi, F.**, 2007, Automated Situation-Aware Service Composition in Service-Oriented Computing, *International Journal of Web Services Research on Services Engineering (JWSR)*, **4**(4), pp. 59-82.

(J13) **Vadrevu S.***, **Gelgi F.**, Nagarajan S., Davulcu H., 2006, Gathering Metadata and Instances from Object Referral Lists on the Web, *Online Information Review*, **30**(3), pp. 278-296.

(J14) **Nguyen H. V.***, Davulcu H., Ramachandran V., 2006, Boosting Item Findability: Bridging the Semantic Gap between Search Phrases and Item Descriptions, *International Journal of Intelligent Information Technologies (IJIIT)* **2**(3), pp. 1-20.

(J15) Davulcu H.*, **Vadrevu S.**, Nagarajan S., 2005, OntoMiner: Automated Metadata and instance Mining from News Websites. *The International Journal of Web and Grid Services (IJWGS)*, **1**(2), pp. 196-221.

(J16) Davulcu H.*, **Vadrevu S.**, Nagarajan S., Ramakrishnan I.V., 2003, OntoMiner: Bootstrapping and Populating Ontologies From Domain Specific Web Sites, *IEEE Intelligent Systems*, **18**(5), pp. 24-33.

Refereed Conference Papers with Indexed Proceedings

(C1) **Ozer, M.*, Yildirim, Y.**, Davulcu, H., 2017, Negative Link Prediction and Its Applications in Online Political Networks, *The 28th ACM Conference on Hypertext and Social Media (ACM Hypertext 17)*, Prague, Czech Republic.

(C2) **Zhang, S.*, Zhou, D., Yildirim, Y.**, Alcorn, S., He, J., Davulcu, H., Tong, H., HiDDen: Hierarchical Dense Subgraph Detection with Application to Financial Fraud Detection, *SIAM International Conference on Data Mining (SDM17)*, Texas, USA.

(C3) **Ozer, M.*, Kim, N.**, Davulcu, H., 2016, Community Detection in Political Twitter Networks using Nonnegative Matrix Factorization Methods, *IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM'16)*, pp. 81-88, San Francisco, USA.

(C4) **Alashri, S.***, Tsai, J-Y.×, **Alzahrani, S.**, Corman, S., Davulcu, H., 2016,"Climate Change" Frames Detection and Categorization Based on Generalized Concepts, *Proceedings of the Tenth IEEE International Conference on Semantic Computing (ICSC'16)*, pp. 277-284, Laguna Hills, CA.

(C5) Koc, S.*, Toroslu, I.H., Davulcu, H., 2016, Co-Clustering Signed 3-Partite Graphs, *International Symposium on Foundations and Applications of Big Data Analytics (FAB'16)*, pp. 945-948, San Francisco, USA.

(C6) **Alzahrani, S.*, Ceran, B., Alashri, S.,** Ruston, S.×, Corman, S., Davulcu, H., 2016, Story Forms Detection in Text through Concept-Based Co-Clustering, *Proceedings of the IEEE International Conferences on Social Computing and Networking (SocialCom'16)*, pp. 258-265, Atlanta, GA.

(C7) **Dawei, Z.***, He, J., Candan, K. S., Davulcu, H., 2015, MUVIR: Multi-View Rare Category Detection, *International Joint Conference on Artificial Intelligence (IJCAI'15)*,, Buenos Aires, Argentina, pp. 4098-4104.

(C8) **Ceran, B.***, Kedia, N., Corman, S.R., Davulcu, H., 2015, Story Detection Using Generalized Concepts and Relations, *IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM'15)*, Paris, France, pp. 942-949.

(C9) **Alostad, H.***, Davulcu, H., 2015, Directional Prediction of Stock Prices using Breaking News on Twitter, *IEEE/WIC/ACM International Conference on Web Intelligence (WI-IAT'15)*, Singapore, pp. 523-530.

(C10) Aktunc, R.*, **Ozer, M.**, Toroslu, I.H., Davulcu, H., 2015, A Dynamic Modularity Based Community Detection Algorithm for Large-scale Networks, *International Symposium on Foundations and Applications of Big Data Analytics (FAB'15)*, Paris, France, pp. 1177-1183.

(C11) **Alzahrani, S.*, Alashri, S.**, Koppela, A., Davulcu, H., Toroslu, I., 2015, A Network-Based Model for Predicting Hashtag Breakouts in Twitter, *Proceedings of the International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction (SBP'15)*, Washington DC, USA, pp. 3-12.

(C12) **Alashri, S.*, Alzahrani, S.**, Bustikova, L., Siroky, D., Davulcu, H., 2015, What Animates Political Debates? Analyzing Ideological Perspectives in Online Debates between Opposing Parties, *Proceedings of the ASE/IEEE International Conference on Social Computing (SocialCom'15)*, Stanford, CA.

(C13) **Wang, Z.*, Lai, M.J., Lu, Z., Fan, W.**, Davulcu, H., Ye, J., 2014, Orthogonal Rank-One Matrix Pursuit for Low Rank Matrix Completion, *Proceedings of the 31st International Conference on Machine Learning, (ICML'14)*, Beijing, China, pp. 91-99.

(C14) **Kim, N.*, Tikves, S.**, Wang, Z.×, Githens-Mazer, J., Davulcu, H., 2013, MultiScale Modeling of Islamic Organizations in UK, *Proceedings of the ASE/IEEE International Conference on Social Computing (SocialCom'13)*, Washington D.C., USA, pp. 13-18.

(C15) **Gokalp, S.*, Temkit, M.**, Davulcu, H., Toroslu, H., 2013, Partitioning and Scaling Signed Bipartite Graphs for Polarized Political Blogosphere, *Proceedings of the ASE/IEEE International Conference on Social Computing (SocialCom'13)*, Washington D.C., USA, pp. 168-173.

(C16) **Mazumder, A.*, Das, A., Kim, N., Gokalp, S.**, Sen, A., Davulcu, H., 2013, Spatio-Temporal Signal Recovery from Political Tweets in Indonesia, *Proceedings of the ASE/IEEE International Conference on Social Computing (SocialCom'13)*, Washington D.C., USA, pp. 280-287.

(C17) Omeroglu, N.*, Toroslu, H., **Gokalp, S.**, Davulcu, H., 2013, K-partitioning of Signed or Weighted Bipartite Graphs, *Proceedings of the ASE/IEEE International Conference on Social Computing (SocialCom'13)*, Washington D.C., USA, pp. 815-820.

(C18) **Kim, N.*, Gokalp, S.**, Davulcu, H., Woodward M., 2013, LookingGlass: A Visual Intelligence Platform for Tracking Online Social Movements, *Proceedings of International Symposium on Foundation of Open Source Intelligence and Security Informatics (FOSINT-SI'13), in conjunction with IEEE ASONAM 2013*, Niagara Falls, Canada, pp. 1020-1027.

(C19) **Ceran, B.***, Karad, R., Mandvekar, A., Corman, S., Davulcu, H., 2012, A Semantic Triplet Based Story Classifier, *Proceedings of IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM'12)*, Istanbul, Turkey, pp. 573-580.

(C20) **Tikves, S.*, Gokalp, S., Temkit, M.**, Banerjee, S., Ye, J., Davulcu, H, 2012, Perspective Analysis for Online Debates, *In Proceedings of International Symposium on Foundation of Open Source Intelligence and Security Informatics (FOISINT-SI'12), in conjunction with IEEE ASONAM 2012*, Istanbul, Turkey, pp. 898-905.

(C21) **Gokalp, S.***, Davulcu, H., 2012, Partisan Scale. *Proceedings of the ACM 21st World Wide Web Conference, (WWW) - Companion Volume*, Lyon, France, pp. 349-352.

(C22) **Banerjee, S.*, Sarkar, K., Gokalp, S.**, Sen, A., and Davulcu, H., 2012, Partitioning Signed Bipartite Graphs for Classification of Individuals and Organizations. *Proceedings of the International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction (SBP'12)*, Lecture Notes in Computer Science 7227, Springer, College Park, MD, pp. 196-204.

(C23) **Tikves, S.*, Banerjee, S., Temkit, H., Gokalp, S.**, Davulcu, H., Sen, A., Corman, S., Woodward, M., Rohmaniyah, I, and Amin, A., 2011, A System for Ranking Organizations Using Social Scale Analysis. *In Proceedings of the IEEE European Intelligence and Security Informatics Conference (EISIC'11)*, Athens, Greece, pp. 308-313.

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(C25) **Tikves, S.***, Davulcu H., 2010, ImpactRank: A Study on News Impact Forecasting. *Proceedings of the 2nd IEEE International Conference on Social Computing (SocialCom-10). Symposium on Social Intelligence and Networking (SIN'10)*, pp. 488-493.

(C26) **Ahmed, S.*, Tikves, S.**, Davulcu, H., 2010, Clustering and Mapping Related News about Violence Events on their Timelines. *Proceedings of 7th IEEE Intelligence and Security Informatics (ISI'10)*, pp. 175-184.

(C27) **Ahmed, S.***, Nair R., Patel C., Kanwar S., Hakenberg J., Davulcu H., 2010, Semantic Classification and Dependency Parsing enabled Automated Bio-Molecular Event Extraction from Text, *Proceedings of ACM International Conference On Bioinformatics and Computational Biology (ACM-BCB'10)*, pp. 370-373.

(C28) **Ahmed, S.***, Kanwar S., Hakenberg J., Davulcu H., 2010, BioEve: A Discovery Engine For Life Sciences Literature, *Proceedings of 6th International Symposium on Bioinformatics Research and Applications (IS-BRA'10)*, pp. 110-114

(C29) Mukhopadhyay, S.*, Bharadwaj, R., Davulcu, H., 2010, Functional AJAX in Secure Synchronous Programming, *Proceedings of 44th Hawaii International Conference on System Sciences (HICSS'10)*, pp. 257-266

(C30) Davulcu, H.*, Mukhopadhyay, S., Singh, P., Yau, S., 2009, Default alpha-Logic for Modeling Customizable Failure Semantics in Workflow Systems using Dynamic Reconfiguration Constraints, *Proceedings of Intl. Conference on Grid and Distributed Computing (GDC'09)*, pp. 221-229

(C31) **Ahmed, S.***, Bhindwale, R., Davulcu, H., 2009, Tracking Terrorism News Threads by Extracting Event Signatures, *Proceedings of IEEE Intelligence and Security Informatics (ISI'09)*, pp. 182-184

(C32) **Ahmed, S.***, Davulcu H., Baral C., 2008, Extracting Protein-Protein Interactions from MEDLINE Using Syntactic Roles, *Proc. of the IEEE International Conference on Bioinformatics and Biomedicine (BIBM'08)*, pp. 473-479

(C33) **Singh P.*, Gelgi F.**, Davulcu H., Yau S.S., Mukhopadhyay S., 2008, A Risk Reduction Framework for Dynamic Workflows, *Proc. of the IEEE International Conference on Services Computing (SCC'08)*, pp. 134-143

(C34) **Nguyen, H.***, Davulcu, H., 2008, Mining Search-Phrase Definition from Item Descriptions, *Proc. of the 24th IEEE International Conference on Data Engineering (ICDE'08)* pp. 1346-1348

(C35) **Gelgi, F.***, Davulcu, H., 2007, Baum-Welch Style EM Approach on Simple Bayesian Models for Web Data Annotation, *Proc. of the IEEE/WIC/ACM International Conference on Web Intelligence (WI'07)*, pp. 736-742

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(C37) **Gelgi, F.*, Vadrevu, S.**, Davulcu, H., 2007, Relational Model Based Annotation of Web Data, *Poc. of the 5th Atlantic Web Intelligence Conference (AWIC'07)*, pp. 124-129

(C38) **Gelgi, F.***, Davulcu, H., **Vadrevu, S.**, 2007, Term Ranking for Clustering Web Search Results, *Proc. of the Tenth International Workshop on the Web and Databases (WebDB'07)*, pp. 20-26

(C39) **Gelgi, F.*, Vadrevu, S.**, Davulcu, H., 2007, ScubaDiver: Subspace Clustering of Web Search Results, *Proc. of the 3rd International Conference on Web Information Systems and Technologies (WebIST'07)*, pp. 35-40

(C40) **Ahmed S.*, Vadrevu S.**, Davulcu H., 2006, DataRover: An Automated System for Extracting Product Information from Online Catalogs, *Proc. of the 4th IEEE Atlantic Web Intelligence Conference (AWIC'06)*, pp. 34-43.

(C41) Yau S.S.*, **Huang D., Gong H.**, Davulcu H., 2005, Situation-Awareness for Adaptive Coordination in Service-Based Systems, *Proc. of the 29th Annual International Computer Software and Applications Conference (COMPSAC'05)*, pp. 107-112.

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(C43) Yau S.S.*, Davulcu H., Mukhopadhyay S., **Huang D., Yao Y.**, 2005, Adaptable Situation-Aware Secure Service-Based (AS3) Systems, *Proc. of the 8th IEEE International Symposium on Object-oriented Real-time distributed Computing (ISORC'05)*, pp. 308-315

(C44) **Vadrevu, S.*, Gelgi F.**, Davulcu, H., 2005, Semantic Partitioning of Web Pages, *Proc. of the 6th International Conference on Web Information Systems Engineering (WISE'05)*, pp. 107-118

(C45) **Gelgi, F.*, Vadrevu S.**, Davulcu, H., 2005, Improving Web Data Annotations with Spreading Activation, *Proc. of the 6th International Conference on Web Information Systems Engineering (WISE'05)*, pp. 95-106

(C46) **Vadrevu, S.*, Gelgi**, F., Davulcu, H., 2005, Automated Metadata and Instance Extraction from News Web Sites, *IEEE/WIC/ACM International Conference on Web Intelligence (WI'05)*, pp. 38-41

(C47) **Aswath, D.*, Ahmed, S., D'Cunha J.**, Davulcu, H., 2005, Boosting Item Keyword Search with Spreading Activation, it IEEE/WIC/ACM International Conference on Web Intelligence (WI'05), pp. 704-707

(C48) Lacroix Z.*, **Parekh, K.**, Davulcu, H., Ramakrishnan I.V., **Julasana, N.**, 2004, Automating the Biological Data Collection Process with Agents, *Proc. of IEEE Computer Society Computational Systems Bioinformatics Conference (CSB'04)*, pp. 489-499

(C49) Davulcu H.*, Kifer, M., Ramakrishnan I.V., 2004, CTR-S: A Logic for Specifying Contracts in Semantic Web Services. *Proc. of the International World Wide Web Conference (WWW'04)*, pp. 144-153 [**Best Paper Runner-Up**]

(C50) Julasana, N.*, Khandelwal, A., Lolage, A., Singh, P., Vasudevan, P., Davulcu, H., Ramakrishnan, I.V, 2004, WinAgent: A System for Creating and Executing Personal Information Assistants Using a Web Browser, *Proc. of the 9th international conference on Intelligent User Interfaces (IUI'04)*, pp. 356 - 357

(C51) **Nguyen H.***, Velamuru, P., Kolippakkam, D., Davulcu, H.,Liu, H., 2003, Mining "Hidden Phrase" Definitions from the Web, *Proc. of the 5th Asia Pacific Web Conference (APWeb'03)*, pp. 156-165

(C52) Davulcu, H.*, Mukherjee, S., Ramakrishnan, I.V., 2002, Extraction Techniques for Mining Services from Web Sources, *Proc. of the IEEE International Conference on Data Mining (ICDM'02)*, pp. 601 - 604

(C53) Davulcu, H.*, Mukherjee, S., Ramakrishnan, I.V., 2002 A Clustering Technique for Mining Data from Text Tables, *Proc. of SIAM International Conference on Data Mining (ICDM'02)*.

(C54) Davulcu, H.*, Kifer, M., Yang, G., Ramakrishnan, I.V., 2000, Design and Implementation of the Physical Layer in WebBases: The XRover Experience. *6th International Conference in Rules and Objects in Databases (DOO'00)*, pp. 1094-1105

(C55) Davulcu H.*, Kifer, M., Yang, G., Ramakrishnan, I.V., 2000, Computational Aspects of Resilient Data Extraction from Semistructured Sources, *Proc. of the ACM Symposium on Principles of Database Systems (PODS'00)*, pp. 136-144.

(C56) Davulcu, H.*, Freire, J., Kifer, M., Ramakrishnan, I.V., 1999, A Layered Architecture for Querying Dynamic Web Content. *Proc. ACM International Conference on Management of Data (SIGMOD'99)*, pp. 491-502.

(C57) Davulcu, H.*, Kifer, M., Ramakrishnan, C.R., Ramakrishnan, I.V., 1998, Logic Based Modeling and Analysis of Workflows, Proc. of the ACM Symposium on Principles of Database Systems (PODS'98), pp. 25-33.

Book Chapters Published

(BC1) Davulcu, H., Woodward, M., 2015, LookingGlass: A Visual Intelligence Platform for Tracking Online Social Movements. Invited chapter in book Illumination Dark Networks: The Study of Clandestine Groups and Organizations". Edited by Luke Gerdes, Cambridge University Press.

(BC2) **Ahmed, S.**, Davulcu, H., **Tikves, S., Nair, R., Patel, C**, 2013, Protein-Protein Relation Extraction from Biomedical Abstracts. Invited chapter in book Biological Knowledge Discovery Handbook: Preprocessing, Mining and Postprocessing of Biological Data". Edited by Mourad Elloumi and Albert Y. Zomaya, Wiley-Blackwell (John Wiley & Sons).

(BC3) S. S. Yau, S. Mukhopadhyay, H. Davulcu, **D. Huang, R. Bharadwaj**, and **K. Shenai** Rapid Development of Adaptable Situation-Aware Service-based Systems, *Service-Oriented Architecture in Industries: Best Practices (Advances in Web Services Research)* Liang-Jie Zhang (Editor), Information Science Publishing, pp., 1-57.

(BC4) **Nguyen, H.**, Davulcu, H., 2007, On the Problem of Mining Phrase Definition from Item Descriptions, *Advanced Topics in Intelligent information Technologies and Applications,* Vol 2, IGI Global.

(BC5) **Ahmed S.T., Vadrevu S.**, Davulcu H., 2006, DataRover: An Automated System for Extracting Product Information From Online Catalogs, *In Studies in Computational Intelligence,* Vol. 23, Eds. Last, M., Szczepaniak, P.S., Volkovich, Z., Kandel, A., pp., 86 - 96

(BC6) Mukherjee S., Davulcu H., Kifer M., Senkul P., Yang G, 2003, Logic Based Approaches to Workflow Modeling and Verification *Logics for Emerging Applications of Databases*, pp. 167-202

Patents

(P1) Davulcu, H., Woodward, M., Corman, S., Ye, J., March 2014, SYSTEM AND METHOD FOR CONTEXTUAL ANALYSIS (U.S. Patent: US9524464 B2), Dec 20, 2016.

(P2) Warren, D., Swift, T., Vidrevich, T., Ramakrishnan, I.V., Pokorny, L., Beggs, A., Rued, C., Epstein, M., Singh, H., Davulcu, H., METHODS FOR DETERMINING THE SIMILARITY OF CONTENT AND STRUCTURING UNSTRUCTURED CONTENT FROM HETEROGENEOUS SOURCES, (U.S. Patent: US7542958 B1), Jun 2, 2009.

Patents Pending

(PP1) Davulcu, H., Corman, S., August 2016,SYSTEMS AND METHODS FOR NARRATIVE DETECTION AND FRAME DETECTION USING GENERALIZED CONCEPTS AND RELATIONS (U.S. Patent Application Serial No.15244,226)

PERSONNEL: STUDENT MENTORING, TEACHING, DISSERTATION COMMITTEES

SUMMARY OF MENTORING:

- Mentored Personnel in US Academia (Tenure-track Positions): 1
- Postdoctoral Researchers: 0 (0 current, 0 previous)

- Ph.D. Students Graduated: 8
- Ph.D. Students Current: 6
- M.S. Students Graduated: 34
- M.S. Students Current: 2
- Undergraduate Students (Research): 0
- High-School Students (Research): 0
- Middle-School Students: 0
- Student Fellowships and Awards: 0

SUMMARY OF TEACHING:

- Undergraduate Courses Taught, including New Course Development: 25
- Graduate Courses Taught, including New Course Development: 5
- Average Teaching Evaluation Score for Undergraduate Courses taught at ASU: 4.09/5
- Average Teaching Evaluation Score for Graduate Courses taught at ASU: 3.67/5

Students Graduated

- **Ph.D. Students Graduated**

  1. Gelgi, Fatih (Summer 2007, CIDSE, ASU)
     Dissertation Title: *Effective Use of Term Relationships in Web Content Mining.*
  2. Nguyen, Hung Viet (Spring 2008, CIDSE, ASU)
     Dissertation Title: *Content-Based Mining of Query Replacements.*
  3. Vadrevu, Srinivas (Spring 2008, CIDSE, ASU)
     Dissertation Title: *Information Extraction from Web pages Using Presentation and Domain Regularities.*
  4. Ahmed, Syed (Summer 2010, CIDSE, ASU)
     Dissertation Title: *Information Extraction to Enable Faceted Search Over Large Text Document Collections.*
  5. Gokalp,Sedat (Spring 2015, CIDSE, ASU)
     Dissertation Title: *Controversy Analysis: Clustering and Ranking Polarized Networks with Visualizations.*
  6. Tikves, Sukru (Summer 2016, CIDSE, ASU)
     Dissertation Title: *W.I.S.D.Or. Web Intelligence for Scaling Discourse of Organizations.*
  7. Alostad,Hana (Summer 2016, CIDSE, ASU)
     Dissertation Title: *Directional Prediction of Stock Prices using Breaking News on Twitter.*
  8. Ceran,Saadet Betul (Summer 2016, CIDSE, ASU)
     Dissertation Title: *Semantic Feature Extraction for Narrative Analysis.*

- **M.S. Students Graduated**

  1. Chidambaram, Deepthi (Spring 2005)
  2. Bhimavarapu, Ravi Sekhar (Fall 2005)
  3. Aswath, Dipti (Fall 2005)
  4. Ahmed, Syed Toufeeq Ali (Spring 2006)
  5. Savla, Purvi (Fall 2006)
  6. Alex, Newton (Summer 2008)
  7. Pendharkar, Bhushan (Summer 2008)
  8. Bhindwale, Ruchi (Fall 2008)

9. Poornachandran, Sumitha (Fall 2008)

10. Dittakavi, Sushma (Spring 2009)

11. Nair, Radhika (Summer 2009)

12. Patel, Chintan (Summer 2009)

13. Verma, Indu (Summer 2009)

14. Vijayarajan, Suvitha (Summer 2009)

15. Gangaraju, Sashi (Fall 2009)

16. Ramalingam, Madhu (Fall 2009)

17. Denduluri, sai Krishna (Spring 2010)

18. Sriramulu Iyyappan, Harish Kumar (Summer 2010)

19. Sudha, Chiranjeevi (Summer 2010)

20. Kanwar, Pradeep (Fall 2010)

21. Sanaka, Srinivasa (Fall 2010)

22. Nair, Shreejay (Spring 2012)

23. Thirumalai, Dananjayan (Spring 2012)

24. Nair, Apurva Aravindakshan (Summer 2012)

25. Karad, Ravi (Spring 2013)

26. Poornachandran, Sathishkumar (Summer 2013)

27. Awasthi,Piyush (Spring 2015)

28. Garipalli,Sravan Kumar (Spring 2015)

29. Nadella, Sravan (Summer 2015)

30. Ejaz,Samira (Spring 2016)

31. Chandrashekar,Pramod Bharadwaj (Spring 2016)

32. Reeves, Tyler (Summer 2016)

33. Bollapragada,Lakshmi Gayatr Niharika (Summer 2016)

34. Baskaran,Swetha (Summer 2016)

Current Students

- **Ph.D. Students Current**

    1. Saud Abdullah H Alashri

    2. Sultan Saad M Alzahrani

    3. Nyunsu Kim

    4. Mehmet Yigit Yildirim

    5. Mert Ozer

    6. Amin Salehi

- **M.S. Students Current**

    1. Pankaj Chhabra

    2. Chinmay Chandrashekhar Gore

Courses Taught

- **Undergraduate Courses Taught**

  1. ASU 101 The ASU Experience: Sp09
  2. CSE 205 Object Oriented Programming and Data Structures: Sp08
  3. CSE 412 Database Management: Fa14, Sp14, Fa13, Sp13, Fa12, Sp12, Sp11, Sp10, Sp07, Sp06, Fa05, Fa03, Sp03
  4. CSE 485 Computer Science Capstone Project I: Sp16, Fa10, Fa09, Sp08, Sp07, Fa06
  5. CSE 486 Computer Science Capstone Project II: Sp16, Fa09, Fa07
  6. CSE 494 Information Retrieval, Mining and Integration on the Internet: Fa04

- **Graduate Courses Taught**

  1. CSE 573 Semantic Web Mining: Sp12, Sp05, Fa05, Sp04, Fa02

PROFESSIONAL ACTIVITIES AND SERVICE

SUMMARY OF PROFESSIONAL ACTIVITIES AND SERVICE

- Editor, Associate Editor for 2 peer-reviewed journals
- 2 International/national conferences chaired
- 22 International/national conferences committees
- 0 International/national conferences sessions organized
- 2 International/national conference sessions chaired
- Member of Editorial Board 2
- Peer Reviewer for 7 Journals
- Proposal Review Service for 1 Funding Agencies
- 10 ASU-level Committees, 7 Engineering School-level Committees and 22 Unit-level Committees.
- Chair of 0 Faculty Search Committees
- Program-level leadership 9

- ASU Internal Service

  - 2017:
    * Co-Director of ABOR approved Center for Assured and Scalable Data Engineering (CASCADE)
    * Developed and received approval for a new course CSE 573 - Semantic Web Mining
    * Awarded an ASU FSE-TIL Seed Grant on May 13, 2016 to commercialize a patented technology System and Method for Contextual Analysis (U.S. Patent: US9524464 B2)
  - 2016:
    * Co-Director of ABOR approved Center for Assured and Scalable Data Engineering (CASCADE)
    * CIDSE, CSE Undergraduate Program Committee, Chair
    * CIDSE Personnel Committee, Member
  - 2015:
    * CIDSE, CSE Undergraduate Program Committee, Chair
    * ASU FURI Selection Committee member
    * CSE Graduate Admissions Committee
    * ASU Student Faculty Policy Committee

- 2014:
  * Created Big Data Systems MS and MCS Graduate Concentration (with Prof. Candan)
  * CIDSE, CSE Graduate Program Committee member
  * ASU FURI Selection Committee member
  * CSE Graduate Admissions Committee
  * ASU Student Faculty Policy Committee
- 2013:
  * CIDSE Senate Member
  * CSE Graduate Admissions Committee
  * ASU Student Faculty Policy Committee
  * ASU FURI Selection Committee member
- 2012:
  * CIDSE Senate Member
  * CSE Graduate Admissions Committee
  * ASU Student Faculty Policy Committee
  * ASU FURI Selection Committee member
  * Coordinator, CSE Capstone Courses and Internship Program
- 2011:
  * CIDSE Senate Member
  * CSE Graduate Admissions Committee
  * Coordinator, CSE Capstone Courses and Internship Program
- 2010:
  * CIDSE Senate Member
  * CSE Graduate Admissions Committee
  * Program Coordinator of SCIDSE Capstone and Internship Program
- 2009:
  * SCI Graduate Admissions Committee, Member
  * Program Coordinator of SCIs Capstone and Internship Program
  * Member of President Crows Committee on Scaling Student Entrepreneurship at ASU
- 2008:
  * Program Coordinator of SCIs Capstone and Internship Program
- 2007:
  * College/School, SCI Capstone Course Committee, Member
  * SCI Graduate Admissions Committee, Member
  * SCI Scholarship/TA Committee, Member
- 2006:
  * Capstone Course (CSE 485/486) Curriculum Development
  * TA Selection Committee member
  * Computer Science (CS) Graduate Admissions Committee
- 2005:
  * Information science certificate meeting
  * Computer Science (CS) Graduate Admissions Committee
- 2004:
  * Chair of the Colleges Quality of Instruction Committee
  * Enterprise Computing research working group

   ∗ Computer Science (CS) Graduate Admissions Committee
  – 2003:
   ∗ Chair, Ira A. Fulton Schools of Engineering - Quality of Instruction Committee
   ∗ Computer Science (CS) Graduate Admissions Committee
  – 2002:
   ∗ Executive Committee Member for the Computational Biosciences Degree Program
   ∗ Ira A. Fulton Schools of Engineering - Quality of Instruction Committee
   ∗ Computer Science (CS) Graduate Admissions Committee

- Professional Society Membership

  - 2002 to date: IEEE, ACM, AAAI

- Journal Editorial Board Member

  - Social Network Analysis and Mining (SNAM) - Springer)
  - Journal on Social Computing (JSC)

- Conference Organizer:

  - ASONAM 2012 Chair for Panels, Exhibits & Demos
  - ACM SIGMOD 2012 Demonstration and Workshop Local Arrangements Chair
  - WWW Track Chair at ISCIS 2010
  - WWW Track Chair at ISCIS 2009

- Workshop Organizer:

  - Co-Chair, Workshop on Information Integration on the Web, VLDB 2004, August 29, 2004.

- Conference Organizing Committee member:

  - Database Systems for Advanced Applications (DASFAA 2017)
  - AAAI Conference on Artificial Intelligence (AAAI 2017)
  - IEEE/ACM Advances in Social Network Analysis and Mining (ASONAM 2015, 2016, 2017)
  - International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction (SBP 2015, 2016, 2017)
  - SIAM International Conference on Data Mining (SDM 2015, 2017)
  - International Symposium on Foundations of Open Source Intelligence and Security Informatics (FOSINT-SI 2015, 2016, 2017)
  - Semantic Web Track, WWW Conference (WWW 2013)
  - International Conference on Data Engineering (ICDE 2007).
  - IEEE International Conference on Scientific Workflows (SWF 2007)
  - Intl Conf. Ontologies, DataBases, and Applications of Semantics (ODBASE 2005)
  - Very Large Data Bases (VLDB 2005), Aug 30 - Sept 2, 2005, Trondheim, Norway.
  - Indian International Conference on Artificial Intelligence (IICAI-05), India.
  - International Semantic Web Conference (ISWC 2004), 7-11 November 2004.
  - Indian International Conference on Artificial Intelligence (IICAI-05), Dec 20-22.
  - National Conference on Artificial Intelligence (AAAI-04), July 25-29, 2004.
  - International Conference on Data Engineering (ICDE 2004), March 30-April 2, 2004.

- NSF Panels

  - NSF CAREER
  - NSF BigData
  - NSF PFI:BIC Partnerships for Innovation
  - NSF Data and Knowledge Management
  - NSF Expeditions in Computing

- Reviewer for Journals:

  - IEEE Transactions on Knowledge and Data Engineering (TKDE)
  - ACM Transactions on Knowledge Discovery from Data (TKDD)
  - International Journal of Cooperative Information Systems (IJCIS)
  - Journal on Educational Resources in Computing (JERIC)
  - Theoretical Computer Science (TCS)
  - Data and Knowledge Engineering (DKE)
  - IEEE Transactions on Services Computing (TSC)