

# MAJID SARRAFZADEH

Distinguished Professor and  
Levi Knight Endowed Chair for Innovation

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## EDUCATIONAL RECORD

University of Illinois at Urbana-Champaign

Department of Electrical and Computer Engineering

Bachelor of Science, 1982. Master of Science, 1984, Doctor of Philosophy, 1987.

## AREAS OF RESEARCH INTEREST

Embedded Medical Systems, Design and Analysis of Algorithms, Health Analytics.

## HIGHLIGHTS

**Time Magazine's Best Inventions of 2020.** The wound-assessment scanner is first of its kind and detects bedsores before they start. The U.S. Food and Drug Administration approved the device in 2019. Note that Time Magazine's annual list highlights "game-changing innovations" in several categories, including design, entertainment, consumer electronics and sustainability. Inventions were evaluated on their "originality, creativity, effectiveness, ambition and impact".

Elected as a fellow in the **National Academy of Inventors**. The fellow award states that Dr. Sarrafzadeh has "demonstrated a highly prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on the quality of life, economic development, and welfare of society."

**Fellow of IEEE** (1996). "IEEE Fellow is a distinction reserved for select IEEE members whose extraordinary accomplishments in any of the IEEE fields of interest are deemed fitting of this prestigious grade elevation."

Medisens has won the **Top 100 North America innovation award**. Medisens developed a Wearable Sensor Platform which is focused on addressing the unmet needs of incontinence management.

Developed a nutrition monitoring necklace (called WearSens) that has been described in **Popular Science**: A new smart necklace aims to rid us of our eating sins by automatically guessing the portions and contents of our meals. Also carried in [CBS News](#); People; New York Magazine; The New York Daily News; The Daily Mail (U.K.); Yahoo Lifestyle UK and MTV News.

## WORK EXPERIENCE

- 1 **Computer Science Department, UCLA**  
2000- present (Courtesy appointment: Electrical & Computer Engineering Department)
- 2 **Department of Electrical and Computer Engineering, Northwestern University**  
Assistant Professor (January of 1987-1991) Associate Professor (1991-1997)  
Tenure (1993) Full Professor (1997-2000)
- 3 **Central Data Corporation**  
Test Engineer (1982)
- 4 **IBM T.J. Watson Research Lab, Yorktown Heights**  
Visiting Scientist for Physical Design (Summer 1988)
- 5 **Leonardo Fibonacci Institute for the Foundations of Computer Science, Trento, Italy**  
Co-Invited Lecturer/Researcher lectured with (1991)
- 6 **IBM and a number of CAD companies**  
Research collaboration and consulting (1990-2000)
- 7 **Motorola**  
Research collaboration and consulting (1994-2000)
- 8 **Monterey Design Systems, (acquired by Synopsys in 2004)**  
Consulting and one of three original architects (1997-2000)
- 9 **Motorola**  
Sabbatical as architect and designer of a reconfigurable digital camera chip: defining their high-level design methodology (academic year 1997-1998)

## ENTREPRUNERSHIP

1. **Monterey Design**  
Technical co-Founder & Consultant (1998-2001)
2. **Hierarchical Design, Inc** (acquired by Xilinx in 2004)  
Founder & Consultant (2001-2004)
3. **MediSens Wireless, Co-founder in 2007**  
Nova/Medisens wins the public prize for innovation at Health Valley Event, 2018.  
Medisens was acquired by Abena in November 2021.
4. **Bruin Biometrics, Co-founder in 2009**  
2018 Best Innovation in Medical Technology Award  
“This winner was a genuine game changer,” Judges say

## 5. WANDA, Founded in 2010

WANDA was acquired in April 2019.  
( Oncoverse: a joint venture of WANDA and Dignity Health was acquired in 2017)

### AWARDS/SOCIETIES

- 1 Member of Tau Beta Pi (National Engineering Honor Society) and Eta Kappa Nu (Electrical Engineering Honor Society)
- 2 Recipient of a 1987 NSF Engineering Initiation Award
- 3 Recipient of a 1988 Design Automation Library Award
- 4 Northwestern McCormick School of Engineering and Applied Sciences (MEAS) 1989/90 Faculty Teaching Honor Roll (given to best teachers)
- 5 Recipient of a 1991 Design Automation Library Award
- 6 Election to Senior Member Grade in IEEE (1992)
- 7 A number of Best Paper Awards and Distinguished paper awards (see detailed list of publication) e.g., in DAC-93 for "The Buffer Distribution Problem" (joint work with J.D. Cho)
- 8 Recipient of a 1994 ACM-SIGDA Scholarship Award (\$12,000)
- 9 Recipient of a 1995 ACM-SIGDA Scholarship Award (\$12,000)
- 10 **Fellow of IEEE** (1996) The citation reads: "For Contribution to Theory and Practice of VLSI Design"
- 11 Okawa Foundation Award.
- 12 Fellow of National Academy of Inventors (NAI).
- 13 Fellow of Asia-Pacific Artificial Intelligence Association (AAIA).

### EDITORIAL

- Editorial Board, Smart Health Journal, published by Elsevier 8/2016-present
- Founding Associate Editor (AE), IEEE Journal of Biomedical and Health Informatics (JBHI), 2014-present
- Guest editor, special issue CFP for the JBHI, "Emerging Wireless Body Area Networks (WBANs) for Ubiquitous Healthcare", 2015-present
- Associate Editor, Transactions on Information Technology in BioMedicine, 2012 – present.
- Editor of the Journal of Microprocessors and Microsystems (MICPRO) by Elsevier Science, 2012 – present.
- Associate Editor, IEEE Transactions on Information Technology in Biomedicine (TITB), 2009 - 2011
- Guest editor, Special issue on Wireless Health, ACM Transactions on Embedded Computing, 2008-2009
- Guest editor, Special issue on Wireless Health, IEEE Transactions on Information Technology in Biomedicine (TITB), 2008-2009
- Associate Editor, IEEE Transactions on Computer-Aided Design of ICAS (TCAD) July 1993-2003

- Associate Editor, ACM Transactions on Design Automation of Electronic Systems (TODAES) 2000-2005
- Editorial board, Journal of Embedded Computing (JEC) by Cambridge International Science Publishing, 2003-present
- Associate Editor, IEEE Transactions on Computers, 2003-2008
- Associate Editor, IEEE Transactions on VLSI, 2003-2005
- Editorial Board of JOLPE - Journal of Low Power Electronics 2005-present
- Editorial Committee of the Journal Engineering Letters at at: <http://www.engineeringletters.com> 2005-present
- Editor, International Journal of Computer Applications in Technology (by UNESCO) 2000-present
- Advisory board, The CSI Journal on Computer Science and Engineering (CSIJCSE) 1999-present
- Editorial board, VLSI Design, 1995-2000
- Co-editor-in-chief, The International Journal of High-Speed Electronics, 1995-1999
- Editorial board, International Journals of Computer-Aided VLSI Design, 1989-1991

### TECHNICAL COMMITTEES

- 1 Program committee of the First IEEE Great Lakes Symposium on VLSI, March 1991
- 2 Program committee of the Second Great Lakes Computer Science Conference, November 1991
- 3 Program committee of the IEEE International Conference on Computer-Aided Design (ICCAD-92)
- 4 Program committee of the IEEE International Symposium on Circuits and Systems (ISCAS-93)
- 5 Program committee of the IEEE International Conference on Computer-aided Design (ICCAD-93)
- 6 Program committee of the European Design Automation Conference (EDAC-94)
- 7 Program committee chair (layout and routing) of the IEEE International Conference on Computer-Aided Design (ICCAD-94)
- 8 Program committee chair (layout and routing) of the IEEE International Conference on Computer-Aided Design (ICCAD-95)
- 9 Program committee co-chair (CAD) of the IEEE International Symposium on Circuits and Systems (ISCAS-96)
- 10 Best-Paper-Award committee of the IEEE Transactions on Computer-Aided Design, 1996
- 11 Program committee of the 1997 Great Lakes Symposium on VLSI (GLSVLSI-97), University of Illinois, Urbana
- 12 Program committee of the 1997 European Design and Test Conference (ED & TC-97), Paris, France, March 1997
- 13 Program committee (CAD) of the IEEE International Symposium on Circuits and Systems (ISCAS-97)
- 14 Program committee chair of the 1997 International Symposium on Physical Design (ISPD-97)
- 15 Panelist for the 1997 NSF CAREER Awards (subject: Design Automation)
- 16 Best-paper-Award committee of the IEEE Transactions on Computer-Aided Design, 1997
- 17 Program committee of the 1998 Great Lakes Symposium on VLSI (GLSVLSI-98),

- Lafayette, LA
- 18 Program committee (CAD) of the IEEE International Symposium on Circuits and Systems (ISCAS-98)
  - 19 Conference chair of the 1998 International Symposium on Physical Design (ISPD)
  - 20 Best-Paper-Award committee of the IEEE Transactions on Computer-Aided Design, 1998
  - 21 Program committee of the 1999 Great Lakes Symposium on VLSI (GLSVLSI-99), Ann Arbor, MI
  - 22 Program committee of the 1999 Southwest Symposium on Mixed-Signal Design, April 11-13, Tucson, AZ
  - 23 Program committee (CAD) of the IEEE International Symposium on Circuits and Systems (ISCAS-99)
  - 24 Program committee of the Workshop on Reconfigurable Computing (WoRC'99) held in conjunction with PACT'99, October 12-16, Newport Beach, CA
  - 25 Program committee (place and route) of the IEEE International Conference on Computer-Aided Design (ICCAD-99) Nov 7-11, San Jose, CA
  - 26 Best-Paper-Award committee of the IEEE Transactions on Computer-Aided Design, 1999
  - 27 General co-chair of the 2000 Great Lakes Symposium on VLSI (GLSVLSI-2000) Chicago, IL
  - 28 Program committee of the International Symposium on Physical Design, April 2000, San Diego, CA
  - 29 Chair of the steering committee of the International Symposium on Physical Design (ISPD) April 2000, San Diego, CA
  - 30 Program committee of the 2000 Southwest Symposium on Mixed-Signal Design, February 28-29, San Diego, CA
  - 31 Steering, special session chair and program committee of the Workshop on System Level Interconnect Prediction (SLIP-2000) San Diego, CA
  - 32 Steering committee of the International Symposium on Quality of Electronic Design (ISQED-2000) March 21-22 2000, San Jose, CA
  - 33 Program committee chair (routing subcommittee) of the IEEE International Conference on Computer-Aided Design (ICCAD-2000) Nov 5-9, San Jose, CA
  - 34 Best-Paper-Award committee, IEEE Transactions on Computer-Aided Design, 2000
  - 35 Steering committee of the International Symposium on Quality of Electronic Design (ISQED 2001) March 2000, San Jose, CA
  - 36 Chair of the steering committee of the International Symposium on Physical Design (ISPD) April 2001
  - 37 Program committee of the International Conference on VLSI Design, January 3-7, 2001, Bangalore, India
  - 38 Program committee of the Advanced Research in VLSI, March 14-16, 2001, Utah
  - 39 Program committee of the Design Automation Conference (DAC) June 2001, Las Vegas
  - 40 Best-Paper-Award committee of the IEEE Transactions on Computer-Aided Design, 2001
  - 41 Steering committee of the International Symposium on Quality of Electronic Design (ISQED) March 2001, San Jose, CA
  - 42 Chair of the routing committee of the International Conference on Computer-Aided Design (ICCAD) November 2001, San Jose, CA
  - 43 Steering committee of the International Symposium on Quality of Electronic Design (ISQED) March 2002, San Jose, CA
  - 44 Program committee of the Design Automation Conference (DAC) June 2002, New

- Orleans, LA
- 45 Chair of the steering committee of the International Symposium on Physical Design (ISPD) April 2002, CA
  - 46 Tutorial chair of the International Conference on Computer-Aided Design (ICCAD) November 2002, San Jose, CA
  - 47 Executive committee of the International Conference on Computer-Aided Design (ICCAD 2002)
  - 48 Program committee of the Asia-Pacific Design Automation Conference (ASP-DAC 2003) Japan
  - 49 Program committee of Field Programmable Gate Arrays (FPGA 2003)
  - 50 Executive committee and the program vice-chair of the International Conference on Computer- Aided Design (ICCAD 2003)
  - 51 Steering committee of the International Symposium on Quality of Electronic Design (ISQED 2003) March 2003, San Jose, CA
  - 52 Program committee of DesignCon 2003, Santa Clara, CA
  - 53 Program committee of the Asia and South Pacific Design Automation Conference (ASP-DAC 2003)
  - 54 Technical program committee for the CODES-ISSS'03 Merged Conference, October 1-3, Newport Beach, CA
  - 55 Advisory board of the International Program Committee (IPC) for CST 2003 (<http://www.iasted.org/conferences/2003/cancun/cst.htm>)
  - 56 Program committee of the Asia-Pacific Design Automation Conference (ASP-DAC 2004) January 27-30, Minato-Mirai Yokohama
  - 57 Executive committee and program chair of the International Conference on Computer-Aided Design (ICCAD 2004)
  - 58 Steering committee of the International Symposium on Quality of Electronic Design (ISQED 2003), March 2004, San Jose, CA
  - 59 Technical program committee for the CODES-ISSS'04 Merged Conference September 8-10, Stockholm, Sweden
  - 60 Program committee of the International Symposium on Field-Programmable Gate Arrays (FPGA 2005) Monterey, CA
  - 61 Distinguished ISQED member (in the recognition of outstanding performance and lasting contributions to ISQED since the inception)
  - 62 Program committee member on the Third Workshop on Application Specific Processors (WASP 2004) September 8-10, Stockholm, Sweden
  - 63 Program committee member of the Design, Automation and Test Conference (DATE 2005) Munich, Germany
  - 64 General chair of the International Conference on Computer-Aided Design (ICCAD 2005).
  - 65 Program Committee member of UbiCare'06, the 1st workshop on Ubiquitous and Pervasive Health Care
  - 66 Program Committee member of Wireless Communications in Medical Applications (WCMA '07) Omaha, NE
  - 67 Program Committee member of the Seventh IASTED International Conferences on Wireless and Optical Communications (WOC 2007) May 31 – June 1, 2007, Montreal, Quebec, Canada
  - 68 Program Committee member of Joint Workshop on High Confidence Medical Devices, Software, and Systems (HCMDSS) and Medical Device Plug-and-Play (MD PnP) Interoperability, June 25 – 27, 2007, Boston, MA.
  - 69 Program Committee member of WSNHC 2007, the 1<sup>st</sup> workshop on Wireless Sensor

- Networks for Health Care. June 6, 2007, Braunschweig, Germany.
- 70 Program committee, 2nd International Conference on Pervasive Computing,  
Technologies for Healthcare 2008, Tampere, Finland, January 30th - February 1st, 2008
- 71 Program committee of Third International Conference on Body Area Networks March  
13-17, 2008, Tempe, Arizona, USA
- 72 Program committee of ICDC 2008, The Second International Conference on the Digital  
Society February 10-15, 2008 - Sainte Luce, Martinique
- 73 General Chair, 1st International Workshop on TeleHealth, January 2008, Tampere,  
Finland
- 74 Program Committee, workshop on Software and Systems for Medical Devices and  
Services (SMDS 2007) in Dec 2007
- 75 Program Committee of Petra'08: International Conference on PErvasive Technologies  
Related to Assistive Environments, July 15-19, 2008, Athens, Greece.
- 76 TPC Chair, BodyNets 2009, Los Angeles, CA
- 77 Technical Program Committee for the 2010 International Conference on Body Sensor  
Networks (BSN 2010)
- 78 Technical Program Committee: eTELEMED 2010, The Second International  
Conference on eHealth, Telemedicine, and Social Medicine in St. Maarten - Netherlands  
Antilles, February 10-15, 2010
- 79 Technical Program Committee: PErvasive Technologies Related to Assistive  
Environments - PETRA 2010 Samos, Greece, June 23-25, 2010.
- 80 Technical Program Committee: eTELEMED 2011, The third International Conference  
on eHealth, Telemedicine, and Social Medicine
- 81 Technical Program Committee-Chair, MobiHealth 2011-First ACM MobiHoc  
Workshop on Pervasive Wireless Healthcare Paris, France May 16-20, 2011
- 82 Co-Chair of IADIS Multi Conference on Computer Science and Information Systems  
(MCCIS 2011) Rome, Italy July 20-26, 2011
- 83 Program Chair of 2011 ACM SIGHT International Health Informatics Symposium (IHI  
2011) Miami, Florida on November 9-11, 2011
- 84 Program Committee of CIMTEC 2012 4<sup>th</sup> International conference “Smart Materials,  
Structures and Systems” Montecatini Terme, Italy on June 10-15 2012
- 85 Technical Program Committee: eTELEMED 2012, The International Conference on  
eHealth, Telemedicine, and Social Medicine
- 86 Technical Program Committee: The 9th International Conference on Wearable and  
Implantable Body Sensor Networks (BSN) London, UK, May 10-12 2012
- 87 Steering Committee: MobiHoc 2012, the Thirteenth International Symposium on Mobile  
Ad Hoc Networking and Computing at Hilton Head Island, South Carolina, June 11-14  
2012
- 88 Program Committee: IADIS International Conference, e-Health 2012 at Lisbon,  
Portugal, July 17-19 2012
- 89 Steering Committee: MobileHealth 2012: Second ACM MobiHoc Workshop on  
Pervasive Wireless Healthcare, South Carolina, USA, June 11 2012
- 90 Program Committee: GLOBAL HEALTH 2012, The First International Conference on  
Global Health Challenges, Venice, Italy, October 21-26 2012
- 91 **Founding Member** of Wireless Health conference.
- 92 Steering committee and Technical program committee of Wireless Health 2010 – 2012.
- 93 Program committee: PETRA 2013 The 6th International Conference on PErvasive  
Technologies Related to Assistive Environments, island of Rhodes, Greece 05/29/13-  
05/31/13
- 94 Program committee: 10<sup>th</sup> Body Sense Network Conference (BSN), Cambridge, USA,

May 6-9 2013.

- 95 Program committee: IADIS INTERNATIONAL CONFERENCE E-HEALTH 2013, Prague, Czech Republic, 24 - 26 July 2013
- 96 Steering Committee of MobileHealth workshop, Bangalore, India July 2013.
- 97 Technical Program Committee: IEEE HealthCom 2013 15th International Conference on E-Health Networking, Application & Services Lisbon, Portugal, October 9-12 2013
- 98 Technical Program Committee: SENSORDEVICES, August 25 - 31, 2013 - Barcelona, Spain
- 99 Technical Program Committee: ICHI 2013 - IEEE International Conference on Healthcare Informatics 2013, 09 Sep - 11 Sep, Philadelphia, PA, USA.
- 100 Technical Program Committee of Wireless Health 2013, Baltimore, MD November 1-3, 2013.
- 101 Program Committee: AMBIENT 2013, The Third International Conference on Ambient Computing, Applications, Services and Technologies, Porto, Portugal, September 29 – October 3 2013
- 102 Program Committee: GLOBAL HEALTH 2013, The Second International Conference on Global Health Challenges, Lisbon, Portugal, November 17-22 2013
- 103 Program Committee: Brain/Health Informatics 2013 (BHI'13), October 29-31 2013, Maebashi, Japan
- 104 Technical Program Committee: The 2014 International Conference on Wearable and Implantable Body Sensor Networks (BSN 2014), Zurich, Switzerland, June 16-20 2014
- 105 Program Committee: International Conference on Healthcare Informatics 2014 (ICHI), Verona, Italy, September 15-17, 2014
- 106 Program Committee: International Advisory Board of Symposium "Progress in Wearable/Wireless and Implantable Body Sensor Networks for Healthcare Applications" CIMTEC 2016, Perugia, Italy June 5-10, 2016
- 107 Steering Committee: IEEE CHASE 2016 (2016 the IEEE 1st International Conference on Connected Health: Applications, Systems and Engineering Technologies), Washington D.C, June 27-29 2016
- 108 Technical Program Committee: IEEE CHASE 2016 (2016 the IEEE 1st International Conference on Connected Health: Applications, Systems and Engineering Technologies), Washington D.C, June 27-29 2016
- 109 Program Committee Member: The First Workshop on Data Mining for Internet of Things (DMIoT 2016), Barcelona, Spain, December 12 2016

## **University Committees (UCLA) Since 2010**

- Committee on Undergraduate Admissions and Relations with Schools (2017 – 2020)
- Recruiting Committee Chair, Computer Science, 2015-16.
- Field Chair for Architecture for 2010-2013, and served in the
- By-Law 55 committee 2010-2012, 2014.
- UCLA Mobile Steering Committee (2015)
- UCLA RISP Board (Research Informatics Strategic Plan), 2014

## **STUDENTS**

### **A. Undergraduate Students**

Many students have worked in my research group since 1987. They have been involved

in design, analysis and implementation of algorithms for Embedded Systems and Wireless Health. They have been supported e.g., by REU grants from NSF (i.e., Research Experience for Undergraduates by the National Science Foundation), Motorola and other companies.

## B. Master Students

At Northwestern University and UCLA there have been more than 100 students who have received their M.S. degree under my supervision. They are either working toward their Ph.D. degree or are working in industry.

### C1. Ph.D. Students in Academia

Ph.D. Alumni in Academia		
1. Jun Dong Cho	PhD 1993	Chair, Dept. of Human ICT Convergence Professor, Dept. Electronic Engineering SungKyunKwan University, Korea
2. Weiliang Lin	PhD 1995	Professor (EE), National Chung Hsing University, Taiwan
3. De-Sheng Chen	PhD 1995	Professor (IECS), Feng Chia University, Taiwan
4. Kia Bazargan	PhD 2000	Associate Professor (ECE), University of Minnesota, USA
5. Ankur Srivastava	PhD 2002	Associate Professor (ECE), University of Maryland, USA, Full Professor 5-2014
6. Ryan Kastner	PhD 2002	Associate professor (CS), University of California, San Diego, USA
7. Seda O Memik	PhD 2003	Associate Professor (ECE), Northwestern University, USA
8. Elaheh Bozorgzadeh	PhD 2003	Associate Professor (CS), University of California, Irvine, USA
9. Soheil Ghiassi	PhD 2004	Associate professor (ECE), University of California, Davis, USA
10. Roozbeh Jafari	PhD 2006	Associate Professor BME, CSE and ECE at Texas A&M, USA
11. Philip Brisk	PhD 2006	Associate Professor (CS) University of California, Riverside, USA
12. Ani Nahapetian	PhD 2007	Associate Professor, California State University, Northridge

13. Tammara Massey	PhD 2009	Johns Hopkins University / Applied Physics Laboratory
14. Jamie MacBeth	PhD 2010	Assistant Professor (CS), Fairfield University
15. Diane Myung-kyung Suh	PhD 2012	Assistant Professor, University of San Francisco, Dept of Analytics
16. Navid Amini	PhD 2012	Research Assistant Professor, UCLA ophthalmology -> Cal State LA
17. Wenyao Xu	PhD 2013	Assistant Professor (Computer Science & Engineering) University of New York at Buffalo
18. Bobak Mortazavi	PhD 2014	Assistant Professor- Texas A&M CS
19. Sunghoon Lee	PhD 2014	Assistant Professor- UMass Amherst CS
20. Ming-Chun (John) Huang	PhD 2014	Assistant Professor- Case Western Reserve University, CS and EE
21. Nabil Alshurafa	PhD 2015	Assistant Professor – Northwestern University, Dept of Preventive Medicine and Computer Science

## C2. Ph.D. Students in Industry

Ph.D. Alumni in Industry		
1. R. D. Lou	PhD 1990	
2. Charles Chiang	PhD 1991	Synopsys
3. Jaosn K. F. Liao	PhD 1991	Mentor
4. Gary K. H. Yeap	PhD 1993	Synopsys
5. Salil Raje	PhD 1996	Xilinx
6. Gustavo Tellez	PhD 1996	IBM
7. Amir Farrahi	PhD 1996	Sun

8. James Crenshaw	PhD 1998	Motorola
9. Maogang Wang	PhD 2000	Blaze-DFM
10. Xiaojian Yang	PhD 2002	Xilinx
11. B. K. Choi	PhD 2004	Magma
12. Taraneh Taghavi	PhD 2007	Amazon
13. Foad Dabiri	PhD 2009	Google
14. Hyduke Noshadi	PhD 2012	Google
15. Mahsan Rofouei	PhD 2012	Google
16. Jonathan Woodbridge	PhD 2012	Sandia National Laboratories
17. Alireza Vahdatpour	PhD 2010	Microsoft
18. Mars Lan	PhD 2013	Google
19. Maryam Moazeni	PhD 2013	Microsoft
20. Jason Liu	PhD 2014	Northrop Grumman- Software Engineer
21. Konstantinos Sideris	PhD 2016	Facebook
22. Lauren Samy	PhD 2016	TBD
23. Haik Kalantarian	PhD 2016	Brain of Things
24. Ebrahim Nemati	PhD 2017	Samsung Research

25. Anahita Hosseini	PhD 2019	Microsoft
26. Babak Motamed	PhD 2020	Stanford
27. Sajad Darabi	PhD 2021	
28. Orpaz Goldstein	PhD 2021	Amazon
29. Mohammad Kachuee	PhD 2021	Amazon
30. Migyeong Gwak	PhD 2022	Samsung Labs USA
31. Tyler Davis	PhD 2022	Google
32. Kimmo Kärkkäinen	PhD 2023	Optum
33. Davina Zamanzadeh	PhD 2023	??

#### D. Current Ph. D. Students

1. Ghazaal Ershadi
2. Mehrab Beikzadeh
3. Lionel Levine
4. Parshan Teimuri
5. Shayan Fazeli
6. Haniyeh
7. Elizabeth
8. Sara

#### E. POSTDOCS/Asst Researcher (A few examples)

NAME	YEAR	CURRENT POSITION
Kevin Bouchard	11/15-7/16	Tenture position, Université du Québec à Chicoutimi-Département d'informatique et de mathématiques
Christine King (Asst Project Scientist V)	10/15	
Young Soo Suh (Asst Visiting Researcher)	2/15-1/31/16	

Ramin Ramezani (Asst Researcher III)	11/14-11/22/15	Technical Managing Director of CTSI
Mohammad Pourhomayoun	9/13-10/1/16	Assistant Professor, Cal State LA
Eun Jeong Park (Visiting Scholar)	1/2013-3/2015	Chair of Health IT at Yonsei University
Hassan Ghasemzadeh (Asst Researcher)	9/2011-12/2013	Assistant Professor, Washington State University
Atshushi Takahashi		Professor, Tokyo Inst of Technology
Chunhong Chen		Professor, Univ of Windsor
Ben Carrion Schafer	2008-2009	Professor, UT Dallas

#### F. Awards Received by my PhD Students

NAME	YEAR	AWARD
<b>Haik Kalantarian</b>	2016	Edward K. Rice Outstanding Doctoral Students (given to one UCLA engineering student each year)
<b>Anahita Hosseini</b>	2016	Best Poster Award at the 2016 Body Sensor Networks Conference, SF, CA. "HIPAA Compliant Wireless Sensing Smartwatch Application for the Self-Management of Pediatric Asthma"
<b>Haik Kalantarian</b>	2016	Northrop-Grumman Outstanding Student Research Award
<b>Nabil Alshurafa</b>	2015	Symantec Outstanding Graduate Student Award in Computer Science
<b>Nabil Alshurafa</b>	2015	Outstanding Doctor of Philosophy in Computer Science
<b>Sunghoon Lee</b>	2014	Northrup-Grumman Outstanding Research Student Award
<b>Jason Liu</b>	2013	Best Paper Runner up "On-bed Monitoring for Range of Motion Exercises with a Pressure Sensitive Bedsheet"
<b>Navid Amini</b>	2013	2012-2013 Google Outstanding Graduate Student Award
<b>Mahsan Rofouei</b>	2012	Edward K. Rice Outstanding Doctoral <i>Students</i> (given to one UCLA engineering student each year)
<b>Mahsan Rofouei</b>	2012	UCLA Computer Science Outstanding Graduate Student Research Award (Sponsored by Google)
<b>Mahsan Rofouei</b>	2012	Runner up Best Paper Award at The 9th International Conference on Wearable and Implantable Body Sensor Networks (BSN)
<b>Bobak Mortazavi</b>	2012	Best Demo Award, 9th international conference on wearable and implantable body sensor networks.
<b>Navid Amini</b>	2011	Symantec Outstanding Graduate Student Research Award
<b>Navid Amini</b>	2011	Outstanding Project Award – Bruin innovation & Technology Magazine (BIT)
<b>Ming-Chun Huang</b>	2011	Best Demo Award – Wireless Health Conference in San Diego, Oct. 2011

<b>Wenyao Xu</b>	2011	Best Contributor Award in Bruin Innovation & Technology
<b>Jonathan woodbridge</b>	2009-2012	NLM's University-based Biomedical Informatics Research Training Fellowship
<b>Myung-kyung Suh</b>	2009-2012	NIH/National Library of Medicine Medical Informatics Training Program Fellowship
<b>Hyduke Noshadi</b>	2010	Outstanding graduate student research award
<b>Foad Dabiri</b>	2008	Edward K. Rice Outstanding Doctoral Student Award (given to one PhD student at UCLA)
<b>Hyduke Noshadi</b>	2008	Best Paper Award Ubiquitous Personal Assistive System for Neuropathy, (HealthNet)
<b>Hyduke Noshadi</b>	2007	Outstanding masters student award
<b>Ani Nahapetian</b>	2004	Edward K. Rice Outstanding Masters Student Award (given to one MS student at UCLA)

## TEACHING

My teaching philosophy and method can be classified as an “Intuitive and rigorous lecturing along with active method of learning”. I believe lecture should be intuitive to make it accessible to students and encourage them to learn more. I also believe lectures should be related to real world and everyday issues. My teaching methods enhance intuitive and rigorous lecturing with active learning. Meyers and Jones (1993) define active learning as learning environments that allow students to talk and listen, read, write, and reflect as they approach course content through problem-solving exercises, informal small groups, simulations, case studies, and other activities -- all of which require students to apply what they are learning. Many studies show that learning is enhanced when students become actively involved in the learning process. Instructional strategies that engage students in the learning process stimulate critical thinking and a greater awareness of other perspectives. Although there are times when lecturing is the most appropriate method for disseminating information, I believe that the use of a variety of instructional strategies can positively enhance student learning.

I take teaching very seriously. I devoted a major portion of my time working with my undergraduate and graduate students, as evident from the large number of publications produced with my students. In 2006 I completely redesigned CS 152 A/B: two major design courses in the departments. I have updated these courses every year ever since. I have also included undergrad students in my research group. I teach two core undergraduate courses; Algorithms and Complexity (CS 180) and a series of graduate courses in the area of embedded systems and Wireless Health. My teaching evaluation average since I have joined UCLA is 8.21 compared with departmental average of 7.56 (At Northwestern, my teaching evaluations have averaged (around) 3.7 (on scale of 1 to 4).

CS 152A lab involves of implementing digital logic designs and applying concepts students learned in CS 51A. The specific objectives of the course is to instruct students learning how to use discrete components, breadboards, oscilloscopes, voltmeters, data sheets, and instruction manuals under digital laboratory environment. Students are expect to be able to collaboratively design digital systems with their partners and implement their designs with a schematic editor, VHDL, and FPGA.

CS152B covers advanced digital design techniques using Xilinx FPGA platforms. Students develop structural and behavior RTL code, perform simulations, and synthesize their designs onto FPGAs for evaluation. Four progressively challenging laboratory assignments cover fundamental hardware concepts such as finite state machines, register files, ALUs, and video standards. The course also emphasizes collaborative group work, testbench development, and technical documentation. The course was significantly revised again in 2013. The previous Xilinx XUPV2P boards were upgraded to Virtex5-based development platforms, which support many more peripherals. This allows new labs/projects to emphasize a greater range of embedded systems applications, rather than focusing on a camera-based project.

**Sample CS152 B Final Projects:**

1. An autonomous robot capable of navigating on a path set by a colored line using image processing.
2. An FPGA-based atari emulator with DVI output, an analog joystick, and buttons.
3. An iRobot-based robot that is capable of reacting to external sound, and moves towards the source.
4. Accelerometer-based implementation of a Wii remote using a VmodCAM camera.

I also teach courses in Design and Analysis of Algorithm and graduate courses in Wireless Health.

We were selected as a Wireless Health Research and Education (REU site) by NSF (with funding of \$380,000). A number of undergraduates from across the country have been trained through our program at UCLA.

## PATENTS

(based on google patent: Sept 2024)

id	title	inventor/author	grant date
US-6286128-B1	Method for design optimization using logical and physical information	Lawrence Pileggi, Majid Sarrafzadeh, Sharad Malik, Abhijeet Chakraborty, Archie Li, Robert Eugene Shortt, Christopher Dunn, David Gluss, Dennis Yamamoto, Dinesh Gaitonde, Douglas B. Boyle, Emre Tuncer, Eric McCaughrin, Feroze Peshotan Taraporevala, Gary K. Yeap, James S. Koford, Joseph T. Rahmeh, Lilly Shieh, Salil R. Raje, Sam Jung Kim, Satamurthy Pullela, Yau-Tsun Steven Li, Tong Gao	9/4/2001
US-6385760-B2	System and method for concurrent placement of gates and associated wiring	Lawrence Pileggi, Majid Sarrafzadeh, Gary K. Yeap, Feroze Peshotan Taraporevala, Tong Gao, Douglas B. Boyle	5/7/2002
US-6651232-B1	Method and system for progressive clock tree or mesh construction concurrently with physical design	Lawrence Pileggi, Christopher Dunn, Satyamurthy Pullela, Majid Sarrafzadeh, Tong Gao, Salil Raje	11/18/2003
US-6851099-B1	Placement method for integrated circuit design using topoclustering	Majid Sarrafzadeh, Salil R. Raje	2/1/2005
US-7726206-B2	Foot pressure alert and sensing system	Nicholas A. Terrafranca, JR., Majid Sarrafzadeh, Eric Collins, Foad Dabiri, Hyduke Noshadi, Tammara Massey	6/1/2010
AU-2011253255-B2	Method, system, and apparatus for pressure image registration	William Kaiser, Ani Nahapetian, Mahsan Rofouei, Majid Sarrafzadeh, Alireza Vahdatpour	8/14/2014
US-8823526-B2	Method of assessing human fall risk using mobile systems	William J. Kaiser, Majid Sarrafzadeh, Hyduke Noshadi, Shaun S. Ahmadian, Hagop Hagopian, Navid Amini, Mars Lan, Jonathan S. Woodbridge, Wen Yao Xu	9/2/2014
US-8845554-B2	Method and apparatus for quantitative assessment of neuromotor disorders	Majid Sarrafzadeh, Roozbeh Jafari, Victor R. Edgerton, Devin L. Jindrich, Foad Dabiri	9/30/2014
US-8974232-B2	Apparatus and method for implementing a mobility aid device	Christian Behrenbruch, William Kaiser, Majid Sarrafzadeh, Maxim Batalin	3/10/2015
US-9330342-B2	On-bed monitoring system for range of motion exercises with	Majid Sarrafzadeh, Wen Yao Xu, Ming-Chun Huang, Jason J. Liu	5/3/2016

	a pressure sensitive bed sheet		
US-9754081-B2	Context-aware prediction in medical systems	Hassan Ghasemzadeh, Myung-kyung Suh, Mars Lan, Majid Sarrafzadeh, Nabil Alshurafa	9/5/2017
US-9833196-B2	Apparatus, system, and method for detecting activities and anomalies in time series data	Majid Sarrafzadeh, Alireza Vahdatpour	12/5/2017
US-9891701-B2	Apparatus, system, and method for automatic identification of sensor placement	Majid Sarrafzadeh, Ani Nahapetian, Alireza Vahdatpour, Mahsan Rofouei	2/13/2018
US-9888868-B2	Energy aware sensor management for wearable medical systems optimization	Majid Sarrafzadeh, Miodrag Potkonjak, Foad Dabiri, Hyduke Noshadi, Saro Meguerdichian	2/13/2018
US-9901815-B2	Devices, systems, and methods for monitoring, classifying, and encouraging activity	Majid Sarrafzadeh, Jason Holmes, Jordan Mendler, Simran Basi, Diego Villasenor, Bitazadeh, Daniel Sebastian Pan	2/27/2018
CA-2825167-C	Apparatus, systems, and methods for tissue oximetry and perfusion imaging	Majid Sarrafzadeh, William Kaiser, Barbara Bates-Jensen, Alireza Mehrnia, Bijan MAPAR, Frank Wang	1/15/2019
US-10201746-B1	Near-realistic sports motion analysis and activity monitoring	Majid Sarrafzadeh, Jack Bobak Mortazavi, Xiaolong Li, Kin Chung Chu	2/12/2019
US-10265029-B2	Methods and systems for calculating and using statistical models to predict medical events	Majid Sarrafzadeh, Myung-kyung Suh, Mars Lan, Hassan Ghasemzadeh	4/23/2019
US-10503967-B2	Fast behavior and abnormality detection	Majid Sarrafzadeh, Foad Dabiri, Hyduke Noshadi	12/10/2019
US-10937547-B2	Subject assessment using localization, activity recognition and a smart questionnaire	Ramin RAMEZANI, Babak MOATAMED, Arjun, Arash NAEIM, Majid Sarrafzadeh	3/2/2021
US-11617537-B2	Fabric-based pressure sensor arrays including intersecting elongated conductive strips on opposite sides of a textile sheet	Majid Sarrafzadeh, Wenyao Xu, Ming-Chun Huang, Nitin Raut, Behrooz Yadegar	4/4/2023
US-	SEM scanner sensing	Majid Sarrafzadeh, William Kaiser, Alireza	10/10/2023

11779265-B2	apparatus, system and methodology for early detection of ulcers	Mehrnia, Barbara M. Bates-Jensen, Frank Wang, Michael Flesch, Joseph Boystak, Yeung Lam
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  209. M. Sarrafzadeh, "Multilayer Routing in Sea-of-Gates," Proceeding of the IFIP Workshop on Physical Design of Sea of Gates in VLSI, W. Germany, August 1988.
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  214. M. Sarrafzadeh and D. Zhou, "Theoretical Aspects of Global Routing," Proceeding of the 20th International Conference on Combinatorics, Graph Theory and Computing, Boca Raton, Florida.
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  219. Katsaggelos, S. Kumar and M. Sarrafzadeh, "Parallel Architecture for an Iterative Image Restoration Algorithms," Proceedings of the IEEE International Symposium on Circuits and System (ISCAS) May 1990, pp. 2605-2608. **(Invited Paper)**
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  221. R. D. Lou and M. Sarrafzadeh, "Maximum k-Coverings of Weighted Transitive Graphs with Applications," Proceedings of the IEEE International Symposium on Circuits and System (ISCAS) May 1990, pp. 332-335. **(Invited Paper)**
  222. M. Nag and M. Sarrafzadeh, "A Parallel Algorithm for Two-Layer Wiring," Proceedings of the 1990 International Conference on Parallel Processing.
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231. M. Marek-Sadowska and M. Sarrafzadeh, "The Crossing Distribution Problem," Proceedings of the IEEE International Conference on Computer-Aided Design (ICCAD-91) with M. Marek-Sadowska, Santa Clara, CA, November 1991, pp. 528-531. **(Distinguished Paper)**
232. M. Sarrafzadeh and D. T. Lee, "Maximum Independent Set of a Permutation Graph in k Tracks," Proceedings of The Second Annual International Symposium on Algorithm, with D. T. Lee, Taipei, Taiwan, December 1991.
233. K.H. Yeap and M. Sarrafzadeh, "A Theorem on Slicability," Proceeding of the Second Great Lakes Computer Science Symposium, with K. H. Yeap, November 1991, Kalamazoo, MI.
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235. J. Cong, A. Kahng, G. Robins, M. Sarrafzadeh and C. K. Wong, "Provably Good Performance Driven Global Routing," with J. Cong, A. Kahng, G. Robins, and C. K. Wong, Proceedings of the IEEE International Symposium on Circuits and System (ISCAS-92), pp. 739-752.
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  243. F. Wagner, D. Wagner, K. Weihe and M. Sarrafzadeh, “Wiring Knock-knee Layouts: A Global Approach,” Proceedings of the International Symposium on Algorithms and Computation, Nagoya, Japan, December 1992.
  244. K. H. Yeap and M. Sarrafzadeh, “An Integrated Algorithm designed for Optimal Floorplan Sizing and Enumeration,” Proceedings of the 1993 European Design Automation Conference, Paris, France, February 1993, pp. 29 – 33.
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  248. J.D. Cho and M. Sarrafzadeh, “A Buffer Redistribution Algorithm for High-Speed Clock Routing,” Proceedings of the 1993 IEEE Design Automation Conference (DAC'93) pp. 537-543. **(Best paper award)**
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  251. A. Farrahi and M. Sarrafzadeh, “On the Lookup-table Minimization Problem for FPGA Technology Mapping,” Proceedings of the Workshop on FPGAs, Berkeley, CA, February 13-15, 1994.
  252. J.D. Cho and Y. Kajitani and M. Sarrafzadeh, “New Approximation Results on Graph Matching and Related Problems,” Proceedings of the 20th International Workshop (WG-1994) Vol. 903, pp. 343-358.
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  270. D. Knol, G. Tellez and M. Sarrafzadeh, "A Solution to Large Scale Timing-Driven Placement Problems," Proceedings of the 1997 Design Automation Conference (DAC-97).
  271. A. Farrahi and M. Sarrafzadeh, "TDD: Fast Technology Mapping with Accurate Prediction," Proceedings of the ASIC'97: Annual IEEE International ASIC Conference and Exhibit.
  272. M. Enos, S. Hauck and M. Sarrafzadeh, "Logic Partitioning with Replication," Proceedings of the International Conference on Computer-Aided Design (ICCAD 97).
  273. M. Wang and M. Sarrafzadeh, "NRG: Global and Detailed Placement," Proceedings of the International Conference on Computer-Aided Design (ICCAD 97).
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  276. K. Bazargan, S. Kim and M. Sarrafzadeh, "Nostradamus: Floorplanner of Uncertain Designs," Proceedings of the 1998 International Symposium on Physical Design (ISPD).
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  279. J. Crenshaw, P. Prabhakaran, P. Banerjee and M. Sarrafzadeh, "An Incremental Floorplanner," Proceeding of the 1998 Great Lakes Symposium on VLSI, March 4-6, Ann Arbor, MI.
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281. M. Sarrafzadeh and T. Takahashi, "A Fast Algorithm for Routability Testing," Proceedings of the 1999 International Symposium on Circuits and Systems (ISCAS) May 30 - June 2 1999, Miami, FL.
282. M. Wang and M. Sarrafzadeh, "Congestion Minimization During Placement," Proceedings of the 1999 International Symposium on Physical Design (ISPD 99) Monterey, CA.
283. A. Ranjan, K. Bazargan and M. Sarrafzadeh, "Floorplanning 1000 times Faster," Proceedings of the System Level Interconnect Prediction (SLIP 99).
284. M. Sarrafzadeh and M. Wang, "Can Fast Algorithms Be Used as Good Predictors?" Proceedings of the System Level Interconnect Prediction (SLIP 99). (**Position Statement**)
285. K. Bazargan, R. Kastner and Majid Sarrafzadeh, "3-D Floorplanning: Simulated Annealing and Greedy Placement Methods for Reconfigurable Computing Systems," Proceedings of the 10th IEEE International Workshop on Rapid System Prototyping, Sheraton Sandkey, Clearwater, FL June 16-18, 1999.
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287. C. Chen and M. Sarrafzadeh, "Slack Equalization Algorithm: Precise Slack Distribution for Low-Level Synthesis and Optimization," Proceedings of the International Workshop on Logic Synthesis (IWLS) Lake Tahoe, CA, June 1999, pp. 190-192.
288. ICCAD 1999 full day tutorial, "Modern Physical Design: Algorithm, Technology and Methodology."
289. C. Chen and M. Sarrafzadeh, "Power Reduction by Simultaneous Voltage Scaling and Gate Sizing," Proceedings of the ASP-DAC 2000, Yokohama, Japan, pp. 333-338.
290. C. Chen and M. Sarrafzadeh, "An Effective Algorithm for Gate-Level Power-Delay Tradeoff Using Two Voltages," Proceedings of the ICCD, October 1999, Austin, TX, pp. 222-2327.
291. M. Sarrafzadeh and M. Wang, "Interaction Among Cost Function During Placement," Proceedings of the International Conference on VLSI and CAD, Seoul, Korea, October 26-29, 1999. (**Invited Paper**)
292. R. Kastner, K. Bazargan and M. Sarrafzadeh, "Physical Design of Reconfigurable Computing Systems with Firm Macros," Proceedings of the Workshop on Reconfigurable Computing (WoRC'99), October 1999.
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294. S. Ogrenci, K. Bazargan and M. Sarrafzadeh, "Image Analysis and Partitioning for FPGA Implementation of Image Restoration," Proceedings of the IEEE Workshop on Signal Processing Systems, 2000, pp. 346-355.
295. M. Wang and M. Sarrafzadeh, "Modeling and Minimization of Routing Congestion," Proceedings of the Asia South Pacific Design Automation Conference (ASP-DAC 2000) China.
296. M. Wang, S. Lim, J. Cong and Majid Sarrafzadeh, "Multi-way Partitioning Using Bi-partition Heuristics," Proceedings of the Asia South Pacific Design Automation Conference (ASP-DAC 2000) China.
297. A. Farrahi, D. Hathaway, M. Wang and M. Sarrafzadeh, "Quality of EDA CAD Tools: Definitions, Metrics and Directions," Proceedings of ISQED 2000, March, San Jose, CA. **(Invited paper)**
298. S. Ogrenci, A. Katsaggelos and M. Sarrafzadeh, "FPGA Analysis and Implementation of Image Restoration," Poster presentation at the ACM International Symposium on Field Programmable Gate Arrays (FPGA 2000) Monterey, CA, February 10-11, 2000.
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300. M. Wang, X. Yang, K. Eguro and M. Sarrafzadeh, "Multi-Center Congestion Minimization During Placement," Proceedings of the International Symposium on Physical Design (ISPD) April 2000, pp. 147-152.
301. M. Wang, X. Yang, K. Eguro and M. Sarrafzadeh, "A Snap-On Placement Tool," Proceedings of the International Symposium on Physical Design (ISPD) April 2000, pp. 153-158.
302. J. Cong and M. Sarrafzadeh, "Incremental Physical Design," Proceedings of the International Symposium on Physical Design (ISPD 2000). **(Invited paper)**
303. K. Bazargan, R. Kastner, S. Ogrenci and M. Sarrafzadeh, "A C to Hardware/Software Compiler," Proceedings of the IEEE Symposium on Field Programmable Custom Computing Machines (IEEE: FCCM) Napa Valley, CA, April 21-23, 2000.
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305. A. Srivatsava, R. Kastner, M. Sarrafzadeh, "Gate Duplication for Performance Optimization," Proceedings of the International Workshop on Logic Synthesis (IWLS) Los Angeles, CA, June 2000.
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307. A. Ranjan, K. Bazargan and M. Sarrafzadeh, "Fast Hierarchical Floorplanning with Congestion and Timing Control," Proceedings of the International Conference on Computer Design (ICCD), Austin, TX, September 17-20, 2000, pp. 357-362.
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309. R. Kastner, E. Bozorgzadeh and M. Sarrafzadeh, "Coupling Aware Routing," Proceedings of the IEEE International ASIC/SOC Conference, Washington, D.C., September 2000.
310. A. Srivatsava, R. Kastner and M. Sarrafzadeh, "Timing Driven Gate Duplication: Complexity Issues and Algorithms," Proceedings of the International Conference on Computer-Aided Design (ICCAD) San Jose, CA, November 2000, pp. 447-450.
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313. R. Kastner, E. Bozorgzadeh and M. Sarrafzadeh, "Predictable Routing," Proceedings of the ACM/IEEE International Conference on Computer-Aided Design (ICCAD) November 2000.
314. A. Kahng and M. Sarrafzadeh, "Modern Physical Design," Tutorial from the International Conference on Computer-Aided Design (ICCAD) 2000. **(Tutorial)**
315. J. Cong, O. Coudert and M. Sarrafzadeh, "Incremental CAD," Embedded Tutorial from the International Conference on Computer-Aided Design (ICCAD) 2000. **(Tutorial)**
316. K. Bazargan, S. Ogrenici and M. Sarrafzadeh, "A Fast Scheduling and Placement Method for C to Hardware/Software Compilation," Reconfigurable Techniques for Computing, Part of Photonics East Conference, Boston, MA, November 5-8.
317. S. Ogrenici, K. Bazarga and M. Sarrafzadeh, "Image Analysis and Partitioning for FPGA Mapping," IEEE Workshop on Signal Processing Systems (SiPS) Lafayette, LA, 2000.
318. A. Srivatsava, C. Chen and M. Sarrafzadeh, "Timing Driven Gate Duplication in Technology Independent Phase," Proceedings of the ACM/IEEE Asia South Pacific Design Automation Conference (ASP-DAC) Yokohama, Japan, Jan 31-Feb 2, 2001.
319. E. Bozorgzadeh, S. Ogrenici and M. Sarrafzadeh, "R-Pack: Routability-Driven Packing for Cluster-Based FPGAs," Proceedings of the Asia South Pacific Design Automation Conference (ASP-DAC) Yokohama, Japan, Jan 31-Feb 2, 2001.

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321. Tutorial with Xilinx et al on "Field Programmable Devices," DAC 2001. **(Tutorial)**
322. X. Yang, E. Bozorgzadeh and M. Sarrafzadeh, "Wirelength Estimation Based on Rent Exponents of Partitioning and Placement," Proceedings of System-Level Interconnect Prediction (SLIP) Sonoma, CA, March 31-April 1, 2001.
323. S. Ogrenci, E. Bozorgzadeh, R. Kastner and M. Sarrafzadeh, "Strategically Reconfigurable Gate Arrays," Proceedings of the Reconfigurable Architecture Workshop (RAW) April 2001.
324. R. Kastner, E. Bozorgzadeh and M. Sarrafzadeh, "An Exact Algorithm for Coupling-Free Routing," Proceedings of the ACM/IEEE International Symposium on Physical Design (ISPD) April 2001.
325. S. Ogrenci Memik, E. Bozorgzadeh, R. Kastner and M. Sarrafzadeh, "SPS: Strategically Programmable Systems," Proceedings of the Reconfigurable Architecture Workshop (RAW) San Francisco, CA, April 2001.
326. M. Sarrafzadeh, E. Bozorgzadeh, R. Kastner and A. Srivastava, "Design and Analysis of Physical Design Algorithms," Proceedings of the ACM/SIGDA International Symposium on Physical Design (ISPD) April 2001.
327. X. Yang, R. Kastner and M. Sarrafzadeh, "Congestion Estimation During Top-down Placement," Proceedings of the International Symposium on Physical Design 2001 (ISPD) Sonoma County, CA, April 1-4, 2001, pp. 164-169.
328. M. Sarrafzadeh and students, "Fundamental Graph Algorithms in Physical Design," Proceedings of the International Symposium on Physical Design 2001 (ISPD) Sonoma County, CA, April 1-4, 2001. **(Invited Paper)**
329. A. Srivatsava, C. Chen and M. Sarrafzadeh, "Exact Algorithm for Modifying Buffer Trees Using Buffer Duplication in a Delay Optimization Perspective," Proceedings of the ACM/SIGDA International Workshop on Logic Synthesis (IWLS) June 2001, pp. 179-184.
330. E. Bozorgzadeh, R. Kastner and M. Sarrafzadeh, "Creating and Exploiting Flexibility in Steiner Trees," Proceedings of the ACM/IEEE Design Automation Conference (DAC) Las Vegas, NV, June 2001, pp. 195-198.
331. P. Schaumont, I. Verbawhede, K. Keutzer and M. Sarrafzadeh, "A Quick Safari Through the Reconfigurable Jungle," Las Vegas Convention Center, June 2001, pp. 172-177. **(Invited Paper)**
332. K. Bazargan, S. Ogrenci, and M. Sarrafzadeh, "Integrated Scheduling and Physical Design into a Coherent Compilation Cycle for Reconfigurable Computing Architectures," Proceedings of the IEEE/ACM Design Automation Conference (DAC)

Las Vegas Convention Center, June 2001, pp. 635-640. **(Best Paper Award Nomination)**

333. A. Srivastava, R. Kastner and M. Sarrafzadeh, "On the Complexity of Gate Duplication," Proceedings of the IEEE Transactions on Computer-Aided Design (TCAD) September 2001, Vol. 20, pp. 1170-1176.
334. A.B. Kahng, R. Kastner, S. Mantik, M. Sarrafzadeh and X. Yang, "Studies of Timing Structural Properties for Early Evaluation of Circuit Design," (SASIMI) Japan, October 2001.
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452. Amini, N., Vahdatpour, A., Dabiri, F., Noshadi, H., Sarrafzadeh, M., "Joint Consideration of Energy-Efficiency and Coverage-Preservation in Microsensor Networks", Journal of Wireless Communications and Mobile Computing, (October 2009)
453. Macbeth, J., Sarrafzadeh, M., "Link Scheduling for Scalable Data Aggregation", The 18th International Conference on Computer Communications and Networks (ICCCN 2009), San Francisco, CA USA, (August 2009)
454. Macbeth, J., Sarrafzadeh, M., "Press the Cancel Button! A Performance Evaluation of Scalable In-Network Data Aggregation", 2009 International Conference on Mobile, Wireless and Optical Communication (MWOC 2009)
455. Suh, M.K., Lee, K., Heu, A., Nahapetian, A., Sarrafzadeh, M., "Bayesian Networks-Based Interval Training Guidance System for Cancer Rehabilitation", MobiCASE 2009, San Diego, CA, (October 2009) **Best Paper Award**
456. Hsiao, M., Amini, N., Sarrafzadeh, M., "A Wireless Home Automation System for Childhood Obesity Prevention", BioDevices 2010, Valencia, Spain, (January 2010)
457. Matthews, J., Kulkarni, R., Whitesides, G., Gerla, M., Sarrafzadeh, M., Massey, T., "A Lightweight Solution for Real-Time Dengue Detection Using Mobile Phones", International Conference on Mobile computing, Applications and Services (MobiCase 2009), San Diego, CA USA, (October 2009)
458. Vahdatpour, A., Sarrafzadeh, M., "Unsupervised Discovery of Abnormal Activity

- Occurrences in Multi-Dimensional Time Series, with Applications in Wearable Systems", 2010 SIAM International Conference on Data Mining (SDM2010), Columbus, Ohio USA, (April 2010)
459. Woodbridge, J., Lan, M., Pau, G., Gerla, M., Sarrafzadeh, M., "Hero: Hybrid Emergency Route-Opening Protocol", Pervasive Computing and Communications Workshops (PERCOM Workshops), 2010 8th IEEE International Conference on, Mannheim, Germany, 364-369 (March 2010)
  460. Nahapetian, A., Noshadi, H., Woodbridge, J., Sarrafzadeh, M., "HIP: Health integration platform", PerHealth 2010: The First IEEE PerCom Workshop on Pervasive Healthcare, 340-345 (March 2010)
  461. Macbeth, J., Sarrafzadeh, M., "Shrinking Symbolic Regression Over Medical and Physiological Signals", Signal Processing Systems (ICSPS), 2010 2nd International Conference on, Dalian, (July 2010)
  462. Suh, M., Evangelista, L., Chen, V., Hong, W., Macbeth, J., Nahapetian, A., Figueras, F., Sarrafzadeh, M., "WANDA B.: Weight and activity with blood pressure monitoring system for heart failure patients", World of Wireless Mobile and Multimedia Networks (WoWMoM), 2010 IEEE International Symposium on a, Montreal, QC, Canada, (June 2010)
  463. Rafouie, M., Sarrafzadeh, M., W, X., "Computing With Uncertainty in a Smart Textile Surface for Object Recognition", 2010 IEEE International Conference on Multisensor Fusion & Integration, Salt Lake City, UT USA, (September 2010)
  464. Rafouie, M., Sarrafzadeh, M., Farella, E., Brunelli, D., Benini, L., "Battery-Aware Power Management Techniques for Wearable Haptic Nodes", BodyNets 2010 The Fifth International Conference on Body Area Networks, Corfu Island, Greece
  465. Mortazavi, B., Hagopian, H., Woodbridge, J., Yadegar, B., Sarrafzadeh, M., "A Wireless Body-Wearable Sensor System for Designing Physically Interactive Video Games", BioAmBIS 2010, Rome, Italy.
  466. Noshadi, H., Dabiri, F., Sarrafzadeh, M., Meguerdichian, S., Potkonjak, M., "Energy Optimization in Wireless Medical Systems Using Physiological Behavior", Wireless Health 2010, La Jolla, San Diego USA, (October 2010)
  467. Suh, M., Evangelista, L., Chen, C., Han, K., Kang, J., Tu, M., Chen, V., Nahapetian, A., Sarrafzadeh, M., "An Automated Vital Sign Monitoring System for Congestive Heart Failure Patients", 1st ACM International Health Informatics Symposium, (November 2010)
  468. Gad, P., Woodbridge, J., Lavrov, I., Gerasimenko, Y., Zhong, V., Roy, R., Sarrafzadeh, M., Edgerton, V.R., "Development of an Electronic Spinal Bridge Between the Forelimbs & Hindlimbs to Facilitate Quadrupedal Stepping After a Complete Spinal Cord Transaction", Neuroscience 2010, (November 2010)

469. Noshadi, H., Sarrafzadeh, M., Dabiri, F., "Quantification of Medical Conditions Through Irregularities in Human Locomotion", BioAmbIS 2010, (December 2010)
470. Vahdatpour, A., Amini, N., Sarrafzadeh, M., "Body Device Localization for Health and Medical Monitoring Applications", Ninth Annual IEEE International Conference on Pervasive Computing and Communications, Seattle, USA, (March 2011)
471. Bates-Jensen, B.M., MCreath, H.E., Mehrnia, A., Sun, L., Wang, F., Lam, L., Patlan, A., Walker, M., Sarrafzadeh, M., Kaiser, W.J., "Development and Safety Testing of the SEM Scanner for Detecting Early Pressure Ulcers", 21st Annual Meeting of the Wound Healing Society with SAWC 2011, Dallas, Texas, (04/14/2011)
472. Xu, W., Li, Z., Hunag, M., Amini, A., Sarrafzadeh, M., "eCushion: An eTextile Device for Sitting Posture Monitoring", Body Sensor Networks 2011, Dallas, (05/23/2011)
473. Rofouei, M., Sinclair, M., Bittner, R., Blank, T., Saw, N., Herron, J., Dejean, G., "A Non-invasive Wearable Neck-cuff System for Real-time Sleep Monitoring", Body Sensor Networks 2011, Dallas, (05/23/2011)
474. Xu, W., Gong, F., He, L., Sarrafzadeh, M., "Compressed Sensing Based EEG Analysis for Fall Prevention", HCMSS/MDPnP, Chicago, USA, (04/11/2011)
475. Rofouei, M., Sarrafzadeh, M., Potkonjak, M., "Energy Efficient Collaborative Sensing-based Soft Keyboard", ISLPED-International Symposium on Low Power Electronics and Design (Eds.), Fukuoka, Japan, (08/01/2011)
476. Woodbridge, J., Bui, A., Lan, M., Sarrafzadeh, M., "Salient Segmentation of Medical Time Series Signals", 2011 IEEE International Conference on Healthcare Informatics, Imaging and Systems Biology (HISB), San Jose, CA, (07/27/2011)
477. Sarrafzadeh, M., Moazeni, M., Bui, A., "Dynamic Programming on a Data-Parallel Many-core Architecture", 2011 Symposium on Application Accelerators in High-Performance Computing (SAAHPC 2011), Knoxville, Tennessee, USA, (07/19/2011)
478. Sarrafzadeh, M., Suh, M., Woodbridge, J., Bui, A., Evangelista, L., "Missing Data Imputation for Remote CHF Patient Monitoring Systems", 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'11), Boston, MA, USA, (08/30/2011)
479. Wang, F., Mehrnia, A., Kaiser, W., Jafari, R., Lach, J., Lam, Y., Bates-Jensen, B., Sarrafzadeh, M., "A Wireless Biomedical Handheld Instrument for Evidence-Based Detection of Pressure Ulcers", Wireless Health 2011 Academic/Industry conference, San Diego, CA, (10/10/2011) **"Demo Paper"**
480. Lee, S., Ling, C., Sarrafzadeh, M., "A Framework for Data Quality Estimation of On-Body Cardiac Sensor Networks", 9th Annual IEEE Consumer Communications and Networking Conference (CCNC), Las Vegas, USA, (01/14/2012)
481. Woodbridge, J., Lee, S., Nahapetian, A., Sarrafzadeh, M., "MARHS: Mobility Assessment System with Remote Healthcare Functionality for Movement Disorder

Diseases", International Health Informatics Symposium (IHI 2012), Miami, USA, (01/28/2012)

482. **(Best Technical presentation Award)**. Huang, M.C., Chen, E., Xu, W., Sarrafzadeh, M., in collaboration with Dr. Belinda Lange and Mr. Chien-Yen Chang "Gaming for Upper Extremities Rehabilitation," Wireless Health 2011, San Diego, CA, October 2011. Technical demonstrations will highlight innovative solutions that represent both advances in fundamental components and complete systems serving individuals and communities.
483. Keynote speaker Sarrafzadeh, M., "End-to-End Research and Innovation in Wireless Health", Bodynets 2011, Beijing, China, November 7-8.
484. Rofouei, M., Sarrafzadeh, M., "Your Phone or Mine? Fusing Body, Touch and Device Sensing for Multi-User Device-Display Interaction", CHI in the field of Human-Computer Interaction (HCI) (2012)
485. **(Best technical demo award)** Mortazavi, B., Chung Chu, K., Li, X., Tai, J., Kotekar, S., Sarrafzadeh, M., "Near-Realistic Motion Video Games with Enforced Activity", 9th International Conference on Wearable and Implantable Body Sensor Networks (BSN 2012), London, UK, (05/10/2012)
486. **(Best paper runner-up award)** Huang, Y., Rofouei, M., Sarrafzadeh, M., "Automated Wolf Motor Function Test for Upper Extremities Rehabilitation", 9th International Conference on Wearable and Implantable Body Sensor Networks (BSN 2012), London, UK, (05/10/2012)
487. Xu, W., Zhang, M., Sawchuk, A., Sarrafzadeh, M., "Co-Recognition of Human Activity and Sensor Location via Compressed Sensing in Wearable Body Sensor Networks", 9th International Conference on Wearable and Implantable Body Sensor Networks (BSN 2012), London, UK, (05/10/2012)
488. Li, Z., Xu, W., Huang, A., Sarrafzadeh, M., "Dimensionality Reduction for Anomaly Detection in Electrocardiography: A Manifold Approach", 9th International Conference on Wearable and Implantable Body Sensor Networks (BSN 2012), London, UK, (05/10/2012)
489. Fraternali, F., Rofouei, M., Alshurafa, N., Ghasemzadeh, H., Benini, L., Sarrafzadeh, M., "Opportunistic Hierarchical Classification for Power Optimization in Wearable Movement Monitoring Systems", 7th IEEE International Symposium on Industrial Embedded Systems (SIES'12), Karlsruhe, Germany, (06/20/2012)
490. Xu, W., Amini, N., Noshadi, H., Basi, S., Huang, M., Sarrafzadeh, M., "Smart Insole: A Wearable Device for Gait Analysis", Pervasive Technologies Related to Assistive Environments (PETRA) 2012, Crete Island, Greece, (06/06/2012)
491. Huang, M., Xu, W., Chang, C., Lange, B., Su, Y., Liu, J., Sarrafzadeh, M., "Smart Glove for Upper Extremities Rehabilitative Gaming Assessment", Pervasive Technologies Related to Assistive Environments (PETRA) 2012, Crete Island, Greece, (06/06/2012)

492. Lan, M., Ghasemzadeh, H., Sarrafzadeh, M., "Generalized Precursor Pattern Discovery for Biomedical Signals", 34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'12), Hilton Bayfront Hotel in San Diego, California, USA, (08/28/2012)
493. Woodbridge, J., Mortazavi, B., Sarrafzadeh, M., "High Performance Time Series Indexes Using Salient Segmentation", 34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'12), Hilton Bayfront Hotel in San Diego, California, USA, (08/28/2012)
494. Suh, M.K., Moin, T., Woodbridge, J., Ghasemzadeh, H., Ahmadi, S., Bui, A., Sarrafzadeh, M., "Dynamic Self-adaptive Remote Health Monitoring System for Diabetics", 34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'12), Hilton Bayfront Hotel in San Diego, California, USA, (08/28/2012)
495. Moazeni, M., Sarrafzadeh, M., "Lock-free Hash Table on a Data-Parallel Many-Core Architecture", 2012 Symposium on Application Accelerators in High-Performance Computing (SAAHPC'12), Argonne National Laboratory, (07/10/2012)
496. B. Mapar et al "Wearable Sensor for Continuously Vigilant Spatial and Depth-Resolved Blood Perfusion Imaging," Research Demo, Wireless Health 2012, San Diego, CA.
497. Lan, M., Samy, L., Alshurafa, N., Suh, M.K., Ghasemzadeh, H., Sarrafzadeh, M., Macabasco-O'Connell, A., "WANDA: An End-to-End Remote Health Monitoring and Analytics System for Heart Failure Patients", Wireless Health 2012 (WH2012), San Diego, California, USA, (10/23/2012)
498. Zhang, M., Xu, W., Alexander Sawchuk, A., Sarrafzadeh, M., "Sparse Representation for Motion Primitive-Based Human Activity Modeling and Recognition", International Conference on Pattern Recognition (ICPR), sukuba, Japan, (November 2012)
499. Woodbridge, J., Mortazavi, B., Sarrafzadeh, S., Bui, A., "A Monte Carlo Approach to Biomedical Timeseries Search", 2012 IEEE International Conference on Bioinformatics and Biomedicine (IEEE BIBM 2012), Philadelphia, USA, (10/04/2012)
500. Suh, M.K., Moin, T., Woodbridge, J., Alshurafa, N., Lan, M., Samy, L., Ahmadi, S., Ghasemzadeh, H., Bui, A., Sarrafzadeh, M., "Dynamic Task Optimization in Remote Diabetes Monitoring Systems", 2012 IEEE Second International Conference on Healthcare Informatics, Imaging and Systems Biology (HISB), La Jolla, USA, (September 2012)
501. Woodbridge, J., Mortazavi, B., Bui, A., Sarrafzadeh, M., "Aggregated Indexing of Biomedical Time Series Data", 2012 IEEE Second International Conference on Healthcare Informatics, Imaging and Systems Biology (HISB), La Jolla, USA, (September 2012)
502. Pournaghshband, V., Reiher, P., Sarrafzadeh, M., "Securing Legacy Mobile Medical Devices", MobiHealth 2012 3rd International Conference on Wireless Mobile Communication and Healthcare, Paris, France, (11/21/2012)

503. Lee, S., Getachew, R., Kimball, J., Yew, A., Ghalehasari, N., Paak, B., Garst, J., Lu, D., Sarrafzadeh, M., "Utilization of a Novel Digital Device and an Analytic Method for Accurate Measurement of Upper Extremity Motor Function", 81st American Association of Neurological Surgeons (AANS) Annual Scientific Meeting, New Orleans, Louisiana, USA, (April 2013)
504. Liu, J., Xu, W., Huang, M., Alshurafa, N., Sarrafzadeh, M., "A Dense Pressure Sensitive Bedsheet Design for Unobtrusive Sleep Posture Monitoring", IEEE Pervasive Computing and Communication (PerCom) conference, San Diego, USA, (03/18/2013)
505. Kalantarian, H., Lee, Sunghoon.,Mishra, A., Ghasemzadeh, H., Sarrafzadeh, M., "Multimodal Energy Expenditure Calculation for Health and Wellness Applications", The 5th International Workshop on Smart Environments and Ambient Intelligence (SENAmI) co-located with PerCom., San Diego, USA, (03/18/2013)
506. Lee, S., Ghasemzadeh, H., Yew, A., Getachew, R., Kimball, J., Ghalehsari, N., Paak, B., Garst, J., Razaghy, M., Lu, D., Sarrafzadeh, M., "Objective Assessment of Spastic Hand Hypertonia using a Novel Digital Device", The 20th IAGG World Congress of Gerontology and Geriatrics, Seoul, Korea, (June 2013)
507. Lee, S., Ghasemzadeh, H., Mortazavi, B., Yew, A., Getachew, R., Razaghy, M., Ghalehsari, N., Paak, B., Garst, J., Espinal, M., Kimball, J., Lu, D., Sarrafzadeh, M., "Objective Assessment of Overexcited Hand Movements using a Lightweight Sensory Device", 2013 IEEE Body Sensor Network Conference, Cambridge, Massachusetts, USA, (05/06/2013)
508. Mortazavi, B., Alshurafa, N., Lee, S., Lan, M., Chronley, M., Roberts, C., Sarrafzadeh, M., "MET Calculations from On-Body Accelerometers", 2013 IEEE Body Sensor Network Conference, Cambridge, Massachusetts, USA, (05/06/2013)
509. Liu, J., Xu, W., Ming-Chun, H., Alshurafa, N., Sarrafzadeh, M., "On-bed Monitoring for Range of Motion Exercises with a Pressure Sensitive Bedsheet", 2013 IEEE Body Sensor Network Conference, Cambridge, Massachusetts, USA, (05/06/2013)
510. Alshurafa, N., Xu, W., Liu, J., Ming-Chun, H., Mortazavi, B., Roberts, C., Sarrafzadeh, M., "Robust Human Intensity-Varying Activity Recognition using Stochastic Approximation in Wearable Sensors", 2013 IEEE Body Sensor Network Conference, Cambridge, Massachusetts, USA, (05/06/2013)
511. Moazeni, M., Sarrafzadeh, M., "High Performance Multi-dimensional Signal Search With Applications in Remote Medical Monitoring", 2013 IEEE Body Sensor Network Conference, Cambridge, Massachusetts, USA, (05/06/2013)
512. Moin, T., Sarrafzadeh, M., "Diabetes Telehealth Intervention For Transitions in Care: A Pilot Study", The Endocrine Society 95th Annual meeting and Expo, San Francisco, CA, (06/15/2013)
513. Huang, M., Xu, W., Liu, J., Samy, L., Vajid, A., Alshurafa, M., Sarrafzadeh, M., "Inconspicuous on-Bed Respiratory Rate Monitoring", The 6th International Conference

on Pervasive Technologies Related to Assistive Environments, Rhodes Island, Greece, (05/29/2013)

514. Xu, W., Huang, M., Liu, J., Liu, X., Shen, X., Sarrafzadeh, M., "Microphone-based Spirometer for COPD diagnosis and Exergame Design", The 6th International Conference on Pervasive Technologies Related to Assistive Environments, Rhodes Island, Greece, (05/29/2013)
515. Huang, M., Xu, W., Liu, J., Su, Y., He, L., Sarrafzadeh, M., "Inconspicuous Computer Protection with Touch-Mouse", 15th International Conference on Human-Computer Interaction, Las Vegas, Nevada, USA, (07/21/2013)
516. Lee, S., Ghasemzadeh, H., Mortazavi, B., Lan, M., Ong, M., Sarrafzadeh, M., "Remote Health Monitoring Systems: What Impact Can Data Analytics Have on Cost?", Wireless Health 2013, Johns Hopkins University, Baltimore, MD, (11/01/2013)
517. Ghasemzadeh, H., Evangelista, L., Sarrafzadeh, M., "Predicting Use of Remote Health Monitoring Systems in a Cohort of Patients with Chronic Heart Failure", Wireless Health 2013, Johns Hopkins University, Baltimore, MD, (11/01/2013)
518. Huang, M., Zhang, X., Xu, W., Liu, J., Sarrafzadeh, M., "EZwakeup: a sleep environment design for sleep quality improvement", ACM CHI Conference on Human Factors in Computing Systems (WIP), Toronto, Canada, (04/26/2014)
519. Alshurafa, N., Eastwood, J., Nyamathi, S., Xu, W., Liu, J. J., Pourhomayoun, M., Ghasemzadeh, H., Sarrafzadeh, M., "Battery Optimization in Smartphones for Remote Health Monitoring Systems to Enhance User Adherence", The 7th International Conference on Pervasive Technologies Related to Assistive Environments (PETRA 2014), Rhodes Island, Greece, (05/27/2014)
520. Mortazavi, B., Pourhomayoun, M., Alsheikh, G., Alshurafa, N., Lee, S., Sarrafzadeh, M., "Determining the Single Best Axis for Exercise Repetition Recognition and Counting on SmartWatches", 2014 International Conference on Wearable and Implantable Body Sensor Networks (BSN 2014), Zurich, Switzerland, (06/16/2014)
521. Alshurafa, N., Pourhomayoun, M., Nyamathi, S., Bao, L., Mortazavi, B., Eastwood, J., Sarrafzadeh, M., "Anti-Cheating: Detecting Self-Inflicted and Impersonator Cheaters for Remote Health Monitoring Systems with Wearable Sensors", 2014 International Conference on Wearable and Implantable Body Sensor Networks (BSN 2014), Zurich, Switzerland, (6/16/2014)
522. Kalantarian, H., Alshurafa, N., Sarrafzadeh, M., "A Wearable Nutrition- Monitoring System", IEEE Body Sensor Networks (BSN 2014), Zurich, Switzerland, (6/26/2014)
523. Alshurafa, N., Eastwood, J., Pourhomayoun, M., Liu, J., Sarrafzadeh, M., "Remote Health Monitoring: Predicting Outcome Success based on Contextual Features for Cardiovascular Disease", IEEE Engineering in Medicine and Biology Society (EMBC'14), Chicago, Illinois, USA, (08/26/2014)
524. Liu, J., Huang, M., Xu, W., Sarrafzadeh, M., "Bodypart Localization for Pressure Ulcer

- Prevention", 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'14), Chicago, Illinois, USA, (08/26/2014)
525. Sideris, C., Shahbazi, B., Pourhomayoun, M., Alshurafa, N., Sarrafzadeh, M., "Using Electronic Health records to predict severity of condition for congestive heart failure patients", The 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp 2014), Seattle, Washington, USA, (09/13/2014)
  526. Alshurafa, N.; Eastwood, J.; Pourhomayoun, M., Liu, J. J., Nyamathi, S., Sarrafzadeh, M., "A Framework for Predicting Adherence in Remote Health Monitoring Systems", Wireless Health 2014, Bethesda, MD, USA, (10/29/2014)
  527. Eastwood, J., Moser, D., Watson, K., Sarrafzadeh, M., "Intervention Strategies to Staying Connected: a CVD Risk Intervention for Young Black Women", Intervention Strategies to Reduce CV Risk or Promote Heart Health- AHA Scientific Sessions 2014, Chicago, Illinois, (11/18/2014)
  528. Alshurafa, N., Kalantarian, H., Pourhomayoun, M., Sarin, S., Liu, J., Sarrafzadeh, M., "Non-Invasive Monitoring of Eating Behavior Using Spectrogram Analysis in a Wearable Necklace", 2014 Healthcare Innovations and Point-of-Care Technologies Conference(HICPT'14), Seattle, WA, USA, (10/08/2014)
  529. Kalantarian, H., Alshurafa, N., Pourhomayoun, M., Sarin, S., Sarrafzadeh, M., "Spectrogram-Based Audio Classification of Nutrition Intake", 2014 Healthcare Innovations and Point-of-Care Technologies Conference(HICPT'14), Seattle, WA, USA, (10/08/2014)
  530. Pourhomayoun, M., Alshurafa, N., Mortazavi, B., Ghasemzadeh, H., Sideris, K., Sadeghi, B., Ong, M., Evangelista, L., Romano, P., Auerbach, A., Kimchi, A., Sarrafzadeh, M., "Multiple Model Analytics for Adverse Event Prediction in Remote Health Monitoring Systems", 2014 Healthcare Innovations and Point-of-Care Technologies Conference(HICPT'14), Seattle, WA, USA, (10/08/2014)
  531. Mortazavi, B., Pourhomayoun, M., Alshurafa, N., Chronley, M., Lee, S., Roberts, C., Sarrafzadeh, M., "Support Vector Regression for METs of Exergaming Actions", 2014 Healthcare Innovations and Point-of-Care Technologies Conference(HICPT'14), Seattle, WA, USA, (10/08/2014)
  532. **(Best Paper Award)** Pournaghshband, V., Meyer, D., Holyland, M., Sarrafzadeh, M., Reiher, P., "Adrasteia: A Smartphone App for Securing Legacy Mobile Medical Devices", WUMS 2014: IEEE Workshop on Usable Mobile Security, Chengdu, China, (12/19/2014)
  533. Mortazavi, B., Pourhomayoun, M., Nyamathi, S., Wu, B., Lee, S., Sarrafzadeh, M., "Multiple Model Recognition for Near-Realistic Exergaming", IEEE Pervasive computing and communications (PerCom) 2015, St. Louis Missouri, USA, (03/23/2015)
  534. Kalantarian, H., Alshurafa, N., Le, T., Sarrafzadeh, M., "Non-Invasive Detection of Medication Adherence using a Digital Smart Necklace", SmartE, The 2nd IEEE PerCom Workshop on Smart Environments: Closing the Loop, St. Louis, Missouri, USA,

(03/25/2015)

535. Kalantarian, H., Alshurafa, N., Pourhomayoun, M., Sarrafzadeh, M., "Power Optimization for Wearable Devices", IEEE International Conference of Pervasive Computing and Communications (PerCom 2015), St. Louis, Missouri, USA, (03/23/2015)
536. Kalantarian, H., Alshurafa, N., Sarrafzadeh, M., "A Smartwatch-Based Medication Adherence System", The 12th International Conference on Wearable and Implantable Body Sensor Networks (BSN 2015), MIT, Cambridge, USA, (07/09/2015)
537. Kalantarian, H., Sarrafzadeh, M., "A Smartwatch-Based System for Audio-Based Monitoring of Dietary Habits", The Fifth International Conference on Ambient Computing, Applications, Services and Technologies-AMBIENT 2015, Nice, France, (07/19/2015)
538. Pourhomayoun, M., Nemati, E., Mortazavi, B., Sarrafzadeh, M., "Context-Aware Data Analytics for Activity Recognition", The Fifth International Conference on Ambient Computing, Applications, Services and Technologies-AMBIENT 2015, Nice, France, (07/19/2015)
539. Samy, L., Macey, P., Alshurafa, N., Sarrafzadeh, M., "An Automated Framework For Predicting Obstructive Sleep Apnea Using A Brief, Daytime, Non-Intrusive Test Procedure", The 8th International Conference on Pervasive Technologies Related to Assistive Environments (PETRA2015), Corfu, Greece, (07/01/2015)
540. Samy, L., Macey, P., Sarrafzadeh, M., "A Gender-Aware Framework for the Daytime Detection of Obstructive Sleep Apnea", 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'15), Milano, Italy, (08/25/2015)
541. Sideris, K., Alshurafa, N., Pourhomayoun, M., Shahmohammadi, F., Sarrafzadeh, M., "A data-driven feature extraction framework for predicting the severity of condition for Congestive Heart Failure Patients", 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'15), Milano, Italy, (08/25/2015)
542. Sideris, K., Alshurafa, N., Kalantarian, H., Sarrafzadeh, M., Eastwood, J., "Effects of Coaching on Adherence in Remote Health Monitoring Systems", Wireless Health 2015, Bethesda, MD, (10/14/2015)
543. Day, F., Sarrafzadeh, M., Smith, S., Pourhomayoun, M., Sideris, K., Param, A., Ben-Hamou, J., Keeves, D., Pfeffer, M., Bell, D., "An EHR-Integrated Shared Decision Making Mobile App for Prostate Cancer Screening", American Medical Informatics Association (AMIA) 2015, San Francisco, CA, (11/14/2015)
544. Pourhomayoun, M., Nemati, E., Mortazavi, B., Sarrafzadeh, "Context - Aware Data Analytics for Activity Recognition", DATA ANALYTICS 2015, The Fourth International Conference on Data Analytics, Nice, France, (07/19/2015) (**Best Paper Award**).

545. Sideris, C., Kalantarian, H., Nemati, E., Sarrafzadeh, M., "Building Continuous Arterial Blood Pressure Prediction Models Using Deep Recurrent Networks", The 2nd IEEE International Conference on Smart Computing (SMARTCOMP 2016), St. Louis, Missouri, (05/18/2016)
546. Suh, Y., Nemati, E., Sarrafzadeh, M., "Kalman-Filter-Based Walking Distance Estimation for a Smart-Watch", 2016 the IEEE 1st International Conference on Connected Health: Applications, Systems and Engineering Technologies (CHASE 2016), Washington, DC, USA, (06/27/2016)
547. Sideris, C., Shaikh, S., Kalantarian, H., Sarrafzadeh, M., "A Big-Data Platform for Medical Knowledge Extraction from Electronic Health Records: Automatic Assignment of ICD-9 Codes", 9th International conference on The PErvasive Technologies Related to Assistive Environments (PETRA)2016, Corfu Island, Greece, (06/29/2016)
548. Kalantarian\*, H., Sideris, C., Le, T., Sarrafzadeh, M., "A Framework for Probabilistic Segmentation of Continuous Sensor Signals", 13th International Conference on Wearable and Implantable Body Sensor Networks, UCSF Mission Bay Conference Center, San Francisco, CA, (06/14/2016)
549. Hosseini, A., Buonocore, C., Hashemzadeh, S., Hojaiji, H., Kalantarian, H., Sideris, C., Bui, A., King\*, C., Sarrafzadeh, M., "HIPAA Compliant Wireless Sensing Smartwatch Application for the Self-Management of Pediatric Asthma", 13th International Conference on Wearable and Implantable Body Sensor Networks, UCSF Mission Bay Conference Center, San Francisco, CA, (06/14/2016)
550. Moatamed\*, B., Arjun, A., Shahmohammadi, F., Ramezani, R., Naeim, A., Sarrafzadeh, M., "Low-cost Indoor Health Monitoring System", 13th International Conference on Wearable and Implantable Body Sensor Networks, UCSF Mission Bay Conference Center, San Francisco, CA, (06/14/2016)
551. Nemati\*, E., Suh, Y., Sarrafzadeh, M., "Gait Velocity Estimation for a Smartwatch Platform Using Kalman Filter Peak Recovery", 13th International Conference on Wearable and Implantable Body Sensor Networks, UCSF Mission Bay Conference Center, San Francisco, CA, (06/14/2016)
552. Nemati\*, E., Sideris, C., Kalantarian, H., Sarrafzadeh, M., "A Dynamic Data Source Selection System for Smartwatch Platform", 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Disney's Contemporary Resort, Orlando, FL, (08/16/2016)
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