Dr. Vijay K. Madisetti
Fellow, IEEE
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Cell: 770-527-0177
Address:
56 Creekside Park Drive
Johns Creek, GA 30022

Employment:

- 1989-present: Full Professor of Cybersecurity & Privacy, and Electrical & Computer Engineering (**Georgia Tech, Atlanta, GA 30332**).

Areas of Technical Interest – Enterprise Software, Cloud Computing Embedded Systems, Wireless & Mobile Communications, Computer Engineering, Circuit Design (Analog/Digital), Biomedical Instrumentation Hardware/Software, Software Engineering, Digital Signal Processing, Sensors, Wireline & Wireless Computer Networks, Software Systems**,** Control Systems, Chip Design, Cloud Computing.

Education: PhD (EECS, University of California at Berkeley, 1989), **B.Tech** (Hons) in Electronics and Electrical Communications Engineering (Indian Institute of Technology, Kharagpur, 1984).

Startup Companies:

Director, **VP Technologies, Inc**. (1995-): A startup commercialized through Georgia Tech's Advanced Technology Development Corporation (ATDC) focusing on digital software and hardware design services for military market. http://www.vptinc.net

Director, **Soft Networks, LLC** (2001-2007): A startup commercialized through Georgia Tech support focusing on software development tools and compilers for Cellular/WiFi/VOIP/telecommunication products. http://www.soft-networks.com

Director, **Elastic Video Inc.** (2007- 2009): A startup commercialized through Georgia Tech's VentureLab (http://venturelab.gatech.edu) development image and video processing software for wireless & IP networking.

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Litigation Experience (2015-2021) With Testimony

(Note: There may be multiple cases between the parties, e.g., District Court v. ITC, US versus Foreign Cases)

Chrimar v. Adtran, Alcatel, et al.
Technology: Power over Ethernet (2015-2017)
Submitted reports & Deposition & Trial

Chamberlain v. Ryobi/TTI
Case No: 1:16-cv-06097 (ND Illinois)
Expert for Ryobi
Technology: Wireless/IoT/Barrier Movement (2016 – 2019)
Submitted reports & deposition & trial testimony

IOEngine v. IMC/Imation
Case No: cv-14-1572-GMS (US Delaware)
Expert for IMC/Imation
Technology: Networked Storage Device (2016-2017)
Submitted reports & deposition & trial testimony

Huawei v. Samsung
Case No: 3:16-cv-2787-WHO (ND Cal)
Expert for Samsung
Technology: 4G/LTE Random Access Protocols (2016-2019)
Submitted reports & deposition

Hitachi Maxell v. ZTE/Huawei
Case No: 5:16-cv-00178-RWS (ED Texas)
Expert for Hitachi Maxell
Technology: Digital Cameras
Submitted reports & deposition (2017 – 2018)

Hitachi Maxell v. Apple
Case No: 5:19-cv-00036-RWS
Expert for Hitachi Maxell
Technology: Digital Cameras
Submitted Expert Reports (2020-)

Qualcomm v. Apple
Case No: 17-ccv-0108-GPC-MDD (SD Cal) Also, Related ITC/FTC Matters
Expert for Qualcomm
Technology: 4G/Wireless Communications/Smartphones (2017-2019)
Submitted Reports and Deposition

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Qualcomm v. Apple
Case No: 3:17-cv-01375-DMS-MDD (SD Cal)
Expert for Qualcomm
Technology: 4G/Wireless Communications/Smartphones (2017-2019)
Submitted Reports and Deposition

Optis v. Huawei
Case No: 2:17-cv-123 (E.D. Texas)
Expert for Optis Wireless
Technology: 4G/Video (2017-2019)
Submitted reports & deposition

Beckman Coulter v. Sysmex
Case No: 1:17-cv-24049-DPG (ND Illinois)
Expert for Sysmex
Technology: Medical Instrumentation Automation (2017-present)
Testifying Expert

TQ Delta v. Xyxel/Adtran
Expert for TQ Delta
Technology: DSL Technologies (2018-present)
Testifying Expert

3GL/KPN v. LG, Blackberry, HTC
Expert for 3GL/KPN
Technology: 4G/LTE Protocols (2018-present)
Reports and Deposition / Testifying Expert

Rovi v. Comcast
ITC No. 337-TA-1103 (ITC)
Expert for Rovi
Technology: Digital Video & interactive GUI (Jan 2018-May 2018)
Reports and Deposition

Cirba/Densify v. VMWare
Case No: 1:19-cv-00742-LPS
Expert for Cirba/Densify
Technology: Virtualization (2019-present)
Reports Deposition/PI Hearing / Testifying Expert

Power Integrations v. On Semiconductor
Case No: 17-cv-03189-BLF
Expert for On Semiconductor
Technology: Power Electronics (2018-2019)

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Reports & Deposition/Testifying Expert.

Pathway v. Lumens, IPEVO, Aver JDA
Case No: ITC 337-TA-1045
Expert for Lumens JDA
Technology: Document Cameras (2016-2019)
Reports & Deposition (for IPR/ITC, no trial)

Wilan v. Apple
Case No: 3:14-cv-2235
Expert for WiLan
Technology: Voice over LTE/LTE Protocols (2017-2020)
Reports and Testified through Deposition/Trials

St. Lawrence Comm. v. Amazon
Case No. 2:19-CV-00027-JRG
Expert for Amazon
Technology: Multimedia Codecs
Submitted Expert Reports/Deposition (2020-2020)

PanOptis v. Apple
Case No. 2:19-CV-00066-JRG
Expert for PanOptis
Technology: LTE
Submitted Expert Reports/Deposition/Trial (2019-2020)

GAS v. Sprint Communications
Case No. 2:20-cv-00007-RWS
Expert for General Access (GAS)
Technology: LTE
Submitted Expert Reports/Deposition (9/21-)

Causum v. Ecobee, Itron, et al
Case No. ITC 337-TA-1277
Expert for Causum
Technology: Load Management
Submitted Expert Reports and Deposition (6/22)

Additional matters include declarations supporting IPRs at the PTAB for Google (US Patent 8,601,154), On Semiconductor (US Patent 6,212,079), Ubisoft (US Patent 5,490,216), Lumens JDA (2017-2019), Broadcom (WiFi), Sony (US Patent 6,101,534), Kia, (US Patent 5,530,431), Qualcomm, Ericsson, Daimler Benz,

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VW, Estech, Amazon, Ring, Digital Ally, On Semiconductor, United Patents, Lenovo, BMC Software, BMW, Daimler and Dolby.

Earned Degrees

1. **B. Tech (Hons), Electronics & Electrical Comm. Engineering**
   Indian Institute of Technology (IIT), Kharagpur, India
   1984.

2. **Ph.D., Electrical Engineering & Computer Sciences (EECS)**
   University of California (UC), Berkeley. CA
   1989.

Books

1. **VLSI Digital Signal Processors**
   Madisetti, V.K.;
   Boston: MA, IEEE Press: Butterworth Heinemann, 1995, 525 pp.

2. **Quick-Turnaround ASIC Design in VHDL**
   Romdhane, M., Madisetti, V.K., Hines, J.
   Boston: MA, Kluwer Academic Press, 1996, 190 pp.

3. **The Digital Signal Processing Handbook (First Edition)**
   Madisetti, V. K., Williams, D. (Editors)
   CRC Press, Boca Raton, Fla, 1998, 2500 pp.

4. **VHDL: Electronics Systems Design Methodologies**.
   Madisetti, V. K. (Editor)
   Boston: MA, IEEE Standards Press, 2000, ISBN 0-7381-1878-8.

5. **Platform-Centric Approach to System-on-Chip (SoC) Design.**
   Madisetti, V. K., Arpnikanondt, A.
   Springer, Boston: MA, Springer, 2004, 280 pp.

6. **The Digital Signal Processing Handbook – Second Edition.**
   Madisetti, V. K. (2009)
   CRC Press, Boca Raton, Fla.

7. **Cloud Computing: A Hands-On Approach**
   A Bahga, V. Madisetti (2013)

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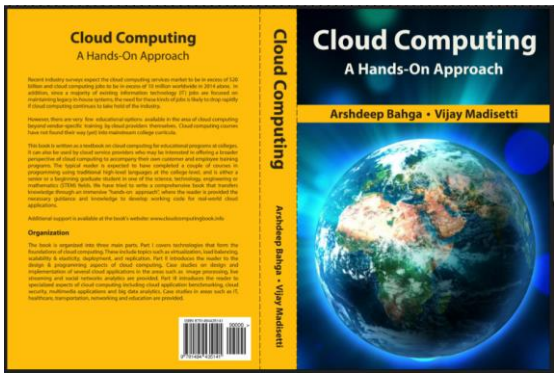
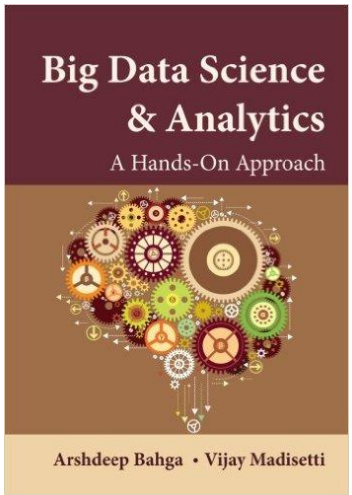
Amazon CreateSpace Publishing, 2013, 454 pp.

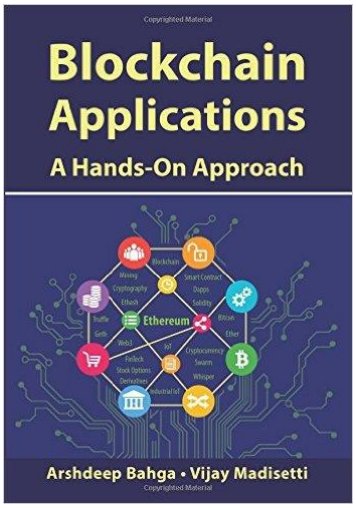
8. Internet of Things: A Hands-On Approach
A Bahga, V. Madisetti (2014)
Amazon CreateSpace Publishing, 2014, 450 pp.



9. Big Data Science & Analytics: A Hands-On Approach
A Bahga, V. Madisetti (2016)
Amazon CreateSpace Publishing, 2016, 542 pp.



10.Blockchain Applications: A Hands-On Approach
A Bahga, V. Madisetti (2017)
Amazon CreateSpace Publishing, 2017, 380 pp.



Edited Books & Collection of Papers

1. **Advances in Parallel & Distributed Simulation**
   Madisetti, V.K.;Nicol, D., Fujimoto, R. (Editors)
   San Diego, CA: SCS Press, 1991, 200 pp.

2. **Modeling, Analysis, Simulation of Computer & Telecommunications Systems**
   Madisetti, V., Gelenbe, E., Walrand, J. W. (Editors)
   Los Alamitos: CA, IEEE Computer Society Press, 1994, 425 pp.

3. **Modeling & Simulations on Microcomputers**
   Madisetti, V.K. (Editor)
   San Diego, CA: SCS Press, 138 pp. 1990.

Editorship of Journals & Transactions

1. **IEEE Design & Test of Computers**
   Special Issue: Reengineering Digital Systems
   April – June 1999 (Vol 16, No 2)
   Madisetti, V.K (Editor)
   Los Alamitos: CA, IEEE Computer Society Press, 1999.

2. **IEEE Design & Test of Computers**
   Special Issue: Rapid Prototyping of Digital Systems
   Fall 1996 (Vol 13, No 3)
   Madisetti, V., Richards, M. (Editors)
   Los Alamitos: CA, IEEE Computer Society Press, 1994, 425 pp.

3. **IEEE Transactions on Circuits & Systems II**
   Associate Editor: 1993-1995.

4. **International Journal in Computer Simulation**
   Associate Editor: 1990-1993

5. **International Journal in VLSI Signal Processing**
   Editorial Board: 1995 - Present

Recent Issued US Patents

[1] 10,503,927 Method and system for securing cloud storage and databases from insider threats and optimizing performance, Issued Dec 10, 2019

[2]. 10,460,283 Smart contract optimization for multiparty service or product ordering system, Issued Oct 29, 2019

[3]. 10,459,946 Method and system for tuning blockchain scalability, decentralization, and security for fast and low-cost payment and transaction processing, Issued Oct 29, 2019

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[4]. 10,402,589 Method and system for securing cloud storage and databases from insider threats and optimizing performance, Issued Sep 3, 2019

[5]. 10,394,845 Method and system for tuning blockchain scalability for fast and low-cost payment and transaction processing, Issued Aug 27, 2019

[6]. 10,289,631 Method and system for tuning blockchain scalability for fast and low-cost payment and transaction processing, Issued May 24, 2019

[7]. 10,255,342 Method and system for tuning blockchain scalability, decentralization, and security for fast and low-cost payment and transaction processing, Issued April 9, 2019

[8]. 10,243,743 Tokens or crypto currency using smart contracts and blockchains, Issued March 26. 2019

[9]. 10,204,339 Method and system for blockchain-based combined identity, ownership, integrity and custody management, Issued February 12, 2019

[10]. 10,204,148 Method and system for tuning blockchain scalability, decentralization, and security for fast and low-cost payment and transaction processing, Issued Feb 12, 2019

[11]. 10,121,143 Method and system for blockchain-based combined identity, ownership, integrity and custody management, Issued Nov 6, 2018

[12]. 10,102,526 Method and system for blockchain-based combined identity, ownership, integrity and custody management, October 16, 2018

[13]. 10,102,265 Method and system for tuning blockchain scalability for fast and low-cost payment and transaction processing, October 16, 2018

[14]. 9,935,772 Methods and systems for operating secure digital management aware applications, April 3, 2018

[15]. 9,769,213 Method and system for secure digital object management, Issued Sep 19, 2017

Refereed Journal Publications

1. **Trends in the Electronic Control of Mine Hoists**
   Madisetti, V. and Ramlu, M.,
   IEEE Transactions on Industry Applications, Vol IA-22, No. 6, November/December 1986. Pages 1105-1112

2. **Multilevel range/NEXT performance in digital subscriber loops**
   Brand, G.; Madisetti, V.; Messerschmitt, D.G.;
   Communications, Speech and Vision, IEE Proceedings I [see also IEE

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Proceedings-Communications] ,Volume: 136 , Issue: 2 , April 1989
Pages:169 – 174

3. **Seismic migration algorithms on parallel computers**
   Madisetti, V.K.; Messerschmitt, D.G.;
   Signal Processing, IEEE Transactions on [see also Acoustics, Speech, and Signal Processing, IEEE Transactions on] ,Volume: 39 , Issue: 7 , July 1991
   Pages:1642 – 1654

4. **Asynchronous algorithms for the parallel simulation of event-driven dynamical systems**
   Madisetti, V.K.; Walrand, J.C.; Messerschmitt, D.G.:
   ACM Transactions on Modeling and Computer Simulation, v 1, n 3, July 1991,
   Pages: 244-74

5. **Synchronization mechanisms for distributed event-driven computation**
   Madisetti, V.K.; Hardaker, D.:
   ACM Transactions on Modeling and Computer Simulation, v 2, n 1, Jan. 1992,
   Pages: 12-51

6. **Efficient VLSI Architectures for the Arithmetic Fourier Transform (AFT)**
   Kelley, B.T.; Madisetti, V.K.;
   Signal Processing, IEEE Transactions on [see also Acoustics, Speech, and Signal Processing, IEEE Transactions on] ,Volume: 41 , Issue: 1 , January 1993
   Pages:365-378

7. **The fast discrete Radon transform. I. Theory**
   Kelley, B.T.; Madisetti, V.K.;
   Image Processing, IEEE Transactions on ,Volume: 2 , Issue: 3 , July 1993
   Pages:382 – 400

8. **The Georgia Tech digital signal multiprocessor**
   Barnwell, T.P., III; Madisetti, V.K.; McGrath, S.J.A.;
   Signal Processing, IEEE Transactions on [see also Acoustics, Speech, and Signal Processing, IEEE Transactions on] ,Volume: 41 , Issue: 7 , July 1993
   Pages:2471 – 2487

9. **The MIMDIX Environment for Parallel Simulation**
   Madisetti, V.K.; Hardaker, D.; Fujimoto, R.M.:
   Journal of Parallel and Distributed Computing, v18, no. 4, August 1993,
   Pages: 473-83.

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10. LMSGEN: a prototyping environment for programmable adaptive digital filters in VLSI
Romdhane, M.S.B.; Madisetti, V.K.;
Chapter in VLSI Signal Processing, VII, 1994.,
Pages:33 – 42

11. Fixed-point co-design in DSP
Egolf, T.W.; Famorzadeh, S.; Madisetti, V.K.;
Chapter in VLSI Signal Processing, VII, 1994.,
Pages:113 - 126

12. A fast spotlight-mode synthetic aperture radar imaging system
Madisetti, V.K.;
Communications, IEEE Transactions on ,Volume: 42 , Issue: 234 , February-April 1994
Pages:873 – 876

13. Rapid prototyping on the Georgia Tech digital signal multiprocessor
Curtis, B.A.; Madisetti, V.K.;
Signal Processing, IEEE Transactions on [see also Acoustics, Speech, and Signal Processing, IEEE Transactions on] ,Volume: 42 , Issue: 3 , March 1994
Pages:649 – 662

14. Low-power signaling in asymmetric noisy channels via spectral shaping
Sipitca, M.; Madisetti, V.K.;
Signal Processing Letters, IEEE, Volume: 1 , Issue: 8 , Aug 1994
Pages:117 – 118

15. A quantitative methodology for rapid prototyping and high-level synthesis of signal processing algorithms
Madisetti, V.K.; Curtis, B.A.;
Signal Processing, IEEE Transactions on [see also Acoustics, Speech, and Signal Processing, IEEE Transactions on] ,Volume: 42 , Issue: 11 , Nov. 1994
Pages:3188 – 3208

16. Computer Simulation of Application-Specific Signal Processing Systems
Casinovi, G.; Madisetti, V.K.;
International Journal in Computer Simulation, Vol. 4, No. 4, Nov 1994.

17. System partitioning of MCMs for low power
Khan, S.A.; Madisetti, V.K.;
Design & Test of Computers, IEEE ,Volume: 12 , Issue: 1 , Spring 1995
Pages:41 – 52

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18. Error correcting run-length limited codes for magnetic recording
Jaejin Lee; Madisetti, V.K.;
Magnetics, IEEE Transactions on ,Volume: 31 , Issue: 6 , Nov. 1995
Pages:3084 – 3086

19. Virtual prototyping of embedded microcontroller-based DSP systems
Madisetti, V.K.; Egolf, T.W.;
Micro, IEEE ,Volume: 15 , Issue: 5 , Oct. 1995
Pages:9 – 21

20. Constrained multitrack RLL codes for the storage channel
Lee, J.; Madisetti, V.K.;
Magnetics, IEEE Transactions on ,Volume: 31 , Issue: 3 , May 1995
Pages:2355 – 2364

21. Rapid digital system prototyping: current practice, future challenges
Madisetti, V.K.;
Design & Test of Computers, IEEE ,Volume: 13 , Issue: 3 , Fall 1996
Pages:12 – 22

22. Conceptual prototyping of scalable embedded DSP systems
Dung, L.-R.; Madisetti, V.K.;
Design & Test of Computers, IEEE ,Volume: 13 , Issue: 3 , Fall 1996
Pages:54 – 65

23. Advances in rapid prototyping of digital systems
Madisetti, V.K.; Richards, M.A.;
Design & Test of Computers, IEEE ,Volume: 13 , Issue: 3 , Fall 1996
Pages:9

24. Combined modulation and error correction codes for storage channels
Jaejin Lee; Madisetti, V.K.;
Magnetics, IEEE Transactions on ,Volume: 32 , Issue: 2 , March 1996
Pages:509 – 514

25. Model-based architectural design and verification of scalable embedded DSP systems-a RASSP approach
Dung, L.-R.; Madisetti, V.K.; Hines, J.W.;
Chapter in VLSI Signal Processing, IX, 1996.
Pages:147 – 156

26. Low-power digital filter implementations using ternary coefficients
Hezar, R.; Madisetti, V.K.;
Chapter in VLSI Signal Processing, IX, 1996.,
Pages:179 – 188

27. All-digital oversampled front-end sensors
Romdhane, M.S.B.; Madisetti, V.K.;
Signal Processing Letters, IEEE, Volume: 3 , Issue: 2 , Feb. 1996
Pages:38 – 39

28. Modeling COTS components in VHDL
Calhoun, S., Reese, R; Egolf, T., Madisetti, V.K.;
Journal of VLSI Signal Processing, Volume: 14 , Issue: 2 , Nov 1996
Pages: 24 – 31

29. VHDL-Based Rapid Systems Prototyping
Egolf, T.; Madisetti, V.K.;
Journal of VLSI Signal Processing, Volume: 14 , Issue: 2 , Nov 1996
Pages: 40-52

30. Interface design for core-based systems
Madisetti, V.K.; Lan Shen;
Design & Test of Computers, IEEE ,Volume: 14 , Issue: 4 , Oct.-Dec. 1997
Pages:42 - 51

31. Incorporating cost modeling in embedded-system design
Debardelaben, J.A.; Madisetti, V.K.; Gadient, A.J.;
Design & Test of Computers, IEEE ,Volume: 14 , Issue: 3 , July-Sept. 1997
Pages:24 – 35

32. On homomorphic deconvolution of bandpass signals
Marenco, A.L.; Madisetti, V.K.;
Signal Processing, IEEE Transactions on [see also Acoustics, Speech, and Signal Processing, IEEE Transactions on] ,Volume: 45 , Issue: 10 , Oct. 1997
Pages:2499 – 2514

33. A case study in the development of multi-media educational material: the VHDL interactive tutorial
Gadient, A.J.; Stinson, J.A., Jr.; Taylor, T.C.; Aylor, J.H.; Klenke, R.H.; Salinas, M.H.; Madisetti, V.K.; Egolf, T.; Famorzadeh, S.; Karns, L.N.; Carter, H.W.;
Education, IEEE Transactions on ,Volume: 40 , Issue: 4 , Nov. 1997
Pages:17 pp.

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34. Adaptive mobility management in wireless networks
Jeongwook Kim; Madisetti, V.K.;
Electronics Letters ,Volume: 34 , Issue: 15 , 23 July 1998
Pages:1453 – 1455

35. Efficient implementation of two-band PR-QMF filterbanks
Hezar, R.; Madisetti, V.K.;
Signal Processing Letters, IEEE ,Volume: 5 , Issue: 4 , April 1998
Pages:92 – 94

36. On fast algorithms for computing the inverse modified discrete cosine transform
Yun-Hui Fan; Madisetti, V.K.; Mersereau, R.M.;
Signal Processing Letters, IEEE ,Volume: 6 , Issue: 3 , March 1999
Pages:61 – 64

37. System on chip or system on package?
Tummala, R.R.; Madisetti, V.K.;
Design & Test of Computers, IEEE ,Volume: 16 , Issue: 2 , April-June 1999
Pages:48 – 56

38. Reengineering legacy embedded systems
Madisetti, V.K.; Jung, Y.-K.; Khan, M.H.; Kim, J.; Finnessy, T.;
Design & Test of Computers, IEEE ,Volume: 16 , Issue: 2 , April-June 1999
Pages:38 – 47

39. Reengineering digital systems
Madisetti, V.K.;
Design & Test of Computers, IEEE ,Volume: 16 , Issue: 2 , April-June 1999
Pages:15 – 16

40. Parameter optimization of robust low-bit-rate video coders
Sangyoun Lee; Madisetti, V.K.;
Circuits and Systems for Video Technology, IEEE Transactions on, Volume: 9
Issue: 6 , Sept. 1999
Pages:849 – 855

41. Closed-form for infinite sum in bandlimited CDMA
Jatunov, L.A.; Madisetti, V.K.;
Communications Letters, IEEE ,Volume: 8 , Issue: 3 , March 2004
Pages:138 – 140

42. A new protocol to enhance path reliability and load balancing in mobile ad hoc networks
Argyriou, A.; Madisetti, V.K.;

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Journal of Ad Hoc Networks, Elsevier Press, 2004

43. Closed-form analysis of CDMA systems using Nyquist pulse
Jatunov, L.A.; Madisetti, V. K.;
Communications Letters, IEEE (Under Revision), 2005.

44. Systematic Design of End-to-End Wireless Mobility Management Prototocols,
Argyriou, A.; Madisetti, V. K.;
ACM/Springer Wireless Networks (WINET), Accepted 2005.

45. A Novel End-to-End Approach for Video Streaming Over the Internet,
Argyriou, A.; Madisetti, V. K.;
Kluwer Telecommunications Systems, Vol. 28, No. 2, Pages 133-150, Jan 2005. *Special Issue on Multimedia Streaming.*

46. An Analytical Framework of RD Optimized Video Streaming with TCP,
Argyriou, A.; Madisetti, V. K.;
IEEE Transactions on Multimedia, Submitted for review in March 2005.

47. Modeling the Effect of Handoffs on Transport Protocol Performance,
Argyriou, A.; Madisetti, V. K.;
IEEE Transactions on Mobile Computing, Submitted for review in March 2005

48. Throughput Models for Transport Protocols with CBR and VBR Traffic Workloads",
Argyriou, A.; Madisetti, V. K.;
ACM Transactions on Multimedia Computing, Communications & Applications, Submitted for review in April 2005.

49. "Electronic System, Platform & Package Codesign",
Madisetti, V. K.
IEEE Design & Test of Computers, Volume 23, Issue 3, June 2006. pages 220-233.

50. "The Design of an End-to-End Handoff Management Protocol",
A. Argyriou, Madisetti, V. K.
Wireless Networks, Springer, May 2006.

51."A Soft-Handoff Transport Protocol for Media Flows in Heterogeneous Mobile Networks ",
A. Argyriou, Madisetti, V. K.
Computer Networks, Vol 50, Issue 11, Pages 1860-1871, August 2006.

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52. "Computationally Efficient SNR Estimation for Bandlimited WCDMA Systems"
L. Jatunov, Madisetti, V. K.
IEEE Transactions on Wireless Communications, Volume 5, Issue 13, December 2006, Pages 3480-3491.

53."Space-Time Codes for Wireless & Mobile Applications",
M. Sinnokrot, Madisetti, V.K.
DSP Handbook, Second Edition, 2009 (to be published)

54.A. Bahga, V. Madisetti, "**Rapid Prototyping of Advanced Cloud-Based Systems**", *IEEE Computer*, vol. 46, no. 11, Nov 2013, pp 76-83, 2013

55.A. Bahga, V. Madisetti, "**Cloud-Based Information Integration & Informatics Framework for Healthcare Application**s", *IEEE Computer*, February 2015.

56.A. Bahga, V. Madisetti, "**A Cloud-based Approach for Interoperable EHRs**", *IEEE Journal of Biomedical and Health Informatics*, vol. 17, no. 5, Sep 2013, pp. 894-906, 2013

57.A. Bahga, V. Madisetti, "**Cloud-Based Information Technology Framework for Data Driven Intelligent Transportation Systems**", *Journal of Transportation Technologies*, vol.3 no.2, April 2013

58.A. Bahga, V. Madisetti, **"Performance Evaluation Approach for Multi-tier Cloud Applications"**, *Journal of Software Engineering and Applications*, vol. 6, no. 2, pp. 74-83, Mar 2013.

59. Yusuf, A., V. Madisetti, **"Configuration for Predicting Travel Time Using Wavelet Packets and Support Vector Regression**", ***Journal of Transportation Technologies***, vol 3, no. 3, June 2013.

60.A. Bahga, V. Madisetti, **"Analyzing Massive Machine Maintenance Data in a Computing Cloud"**, *IEEE Transactions on Parallel and Distributed Systems*, vol. 23, no. 10, pp. 1831 - 1843, 2012.

61.N. Radia. Y. Zhang, M. Tatimapula, V. Madisetti, **"Next Generation Applications on Cellular Networks: Trends, Challenges, and Solutions**," *Proceedings of the IEEE*, Vol 100, Issue 4, pp. 841-854, 2012.

62.A. Bahga, V. Madisetti, "**Rapid Prototyping of Advanced Cloud-Based Systems**", *IEEE Computer*, vol. 46, no. 11, Nov 2013, pp 76-83, 2013

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63. A. Bahga, V. Madisetti, "**A Cloud-based Approach for Interoperable EHRs**", *IEEE Journal of Biomedical and Health Informatics*, vol. 17, no. 5, Sep 2013, pp. 894-906, 2013

64. A. Bahga, V. Madisetti, "**Cloud-Based Information Integration & Informatics Framework for Healthcare Application**s", *IEEE Computer*, February 2015.

Peer Reviewed Conference Publications

1. **Dynamically-reduced complexity implementation of echo cancelers**
   Madisetti, V.; Messerschmitt, D.; Nordstrom, N.;
   Acoustics, Speech, and Signal Processing, IEEE International Conference on ICASSP '86. ,Volume: 11 , Apr 1986

2. **Seismic migration algorithms using the FFT approach on the NCUBE multiprocessor**
   Madisetti, V.K.; Messerschmitt, D.G.;
   Acoustics, Speech, and Signal Processing, 1988. ICASSP-88., 1988 International Conference on , 11-14 April 1988

3. **Seismic migration algorithms on multiprocessors**
   Madisetti, V.K.; Messerschmitt, D.G.;
   Acoustics, Speech, and Signal Processing, 1988. ICASSP-88., 1988 International Conference on , 11-14 April 1988
   Pages:2124 - 2127 vol.4

4. **WOLF: A rollback algorithm for optimistic distributed simulation systems**
   Madisetti, V.; Walrand, J.; Messerschmitt, D.;
   Simulation Conference Proceedings, 1988 Winter , December 12-14, 1988
   Pages:296 – 305

5. **Efficient distributed simulation**
   Madisetti, V.; Walrand, J.; Messerschmitt, D.;
   Simulation Symposium, 1989. The 22nd Annual , March 28-31, 1989
   Pages:5 - 6

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Ph.D. Students Graduated

1. **Brian T. Kelley, 1992**
   VLSI Computing Architectures for High Speed Signal Processing
   Member of Technical Staff, Motorola.

   Winner of Dr. Thurgood Marshall Dissertation Fellowship Award

2. **Bryce A. Curtis, 1992**
   Special Instruction Set Multiple Chip Computer for DSP
   Member of Technical Staff, IBM

3. **Jaejin Lee, 1994**
   Robust Multitrack Codes for the Magnetic Channel
   Professor, Yonsei University, Korea

4. **Mohamed S. Ben Romdhane, 1995**
   Design Synthesis of Application-Specific IC for DSP
   Director of IP, Rockwell.

5. **Shoab A. Khan, 1995**
   Logic and Algorithm Partitioning on MCMs
   Professor, National University of Science & Technology, Pakistan

6. **Lan-Rong Dung, 1997**
   VHDL-based Conceptual Prototyping of Embedded DSP Architectures
   Professor, National Chaio Tung University, Taiwan.

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Winner of VHDL International Best PhD Thesis Award, 1997

7. **Thomas W. Egolf, 1997**
   Virtual Prototyping of Embedded DSP Systems
   Distinguished Member of Technical Staff, Agere

8. **Alvaro Marenco, 1997**
   On Homomorphic Deconvolution of Bandpass Signals
   Professor, Texas A&M University.

   Winner of GIT ECE Outstanding Teaching Assistant Award

9. **Shahram Famorzadeh, 1997**
   BEEHIVE: A Distributed Environment for Adaptive Signal Processing
   Member of Technical Staff, Rockwell.

10. **Timothy J. Klausutis, 1997**
    Adaptive Lapped Transforms with Applications to Image Coding.
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11. **Lan Shen, 1998**
    Temporal Design of Core-Based Systems
    Member of Technical Staff, IBM

12. **James DeBardelaben, 1998**
    Optimization Based Approach to Cost Effective DSP Design
    Research Scientist, Johns Hopkins University

    Georgia Tech ECE Faculty Award

13. **Sangyoun Lee, 1999**
    Design of Robust Video Signal Processors
    Professor, Yonsei University

    US Army Sensors Lab Research Excellence Award, 1999

14. **Rahmi Hezar, 2000**
    Oversampled Digital Filters
    Member of Technical Staff, Texas Instruments

15. **Yong-kyu Jung, 2001**
    Model-Based Processor Synthesis
    Professor, Texas A&M University

16. **Mustafa Turkboylari, 2002**
    Handoff Algorithms for Wireless Applications
    Member of Technical Staff, Texas Instruments

17. **Yun-Hui Fan, 2002**
    A Stereo Audio Coder with Nearly Constant Signal to Noise Ratio
    Post-Doctoral Research Associate, Northeastern University

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Design of a Retargetable Compiler for DSP
Member of Technical Staff, Qualcomm

US Army Sensors Lab Research Excellence Award, 1999

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System-on-Chip Design with UML
Professor, King Mongkut's University, Thailand.

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20. Loran Jatunov, 2004
Performance Analysis of 3G CDMA Systems
Senior Research Scientist, Soft Networks, LLC.

21. Antonios Argyriou, 2005, Serving in Hellenic Army.

22. Pilho Kim, 2009, Scientist, VP Technologies, Inc.

23. M. Sinnokrot, 2009, Staff Engineer, Qualcomm.

Awards & Honors

1. **Jagasdis Bose National Science Talent Fellowship**, Indian Institute of Technology, Kharagpur, 1980-1984.

2. **General Proficiency Prize**, Indian Institute of Technology, Kharagpur, 1984.

3. **Demetri Angelakos Outstanding Graduate Student Award**, Univ. of California, Berkeley, 1989

4. **Ira Kay IEEE/ACM Best Paper Award** for Best Paper presented at IEEE Annual Simulation Symposium, 1989

5. **IBM Faculty Development Award** 1990

6. **Technical Program Chair**, IEEE Workshop on Parallel and Distributed Simulation. 1990.

7. **Technical Program Chair**, IEEE MASCOTS'94

8. **NSF RI Award**, 1990

9. **VHDL International Best PhD Dissertation Advisor Award**, 1997

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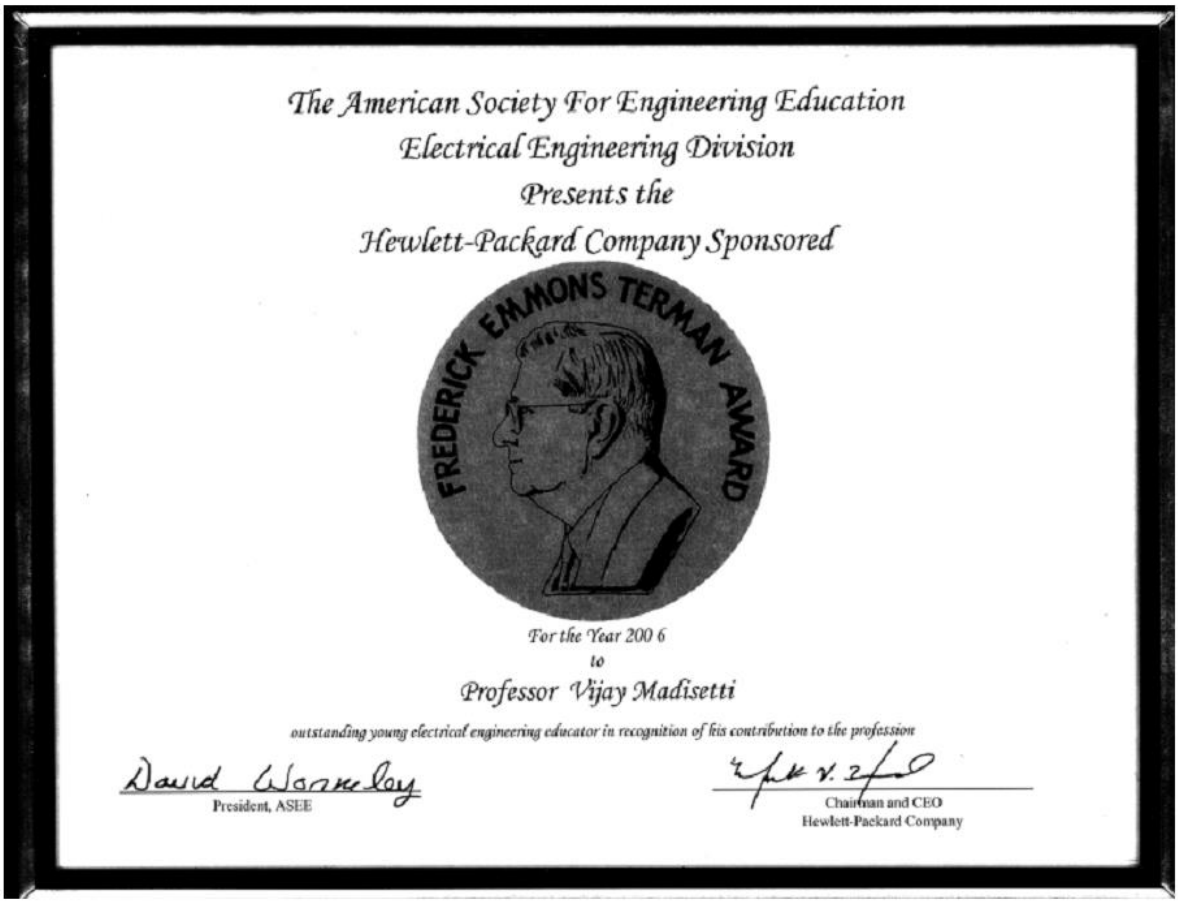
10. **Georgia Tech Outstanding Doctoral Dissertation Advisor Award**, 2001.

11. **ASEE 2006 Frederick Emmons Terman Medal, 2006.**

12. **Fellow of IEEE**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Patent	Date	Description
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2659	2002	A New Algorithm and Technology for Implementing Mobile IP with Applications to Voice and Video over Mobile IP
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2517	2002	A Dynamic Instantiated Real-Time Operating System Debugger
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GSU-009	2001	System of Databases: Architecture,, Global Queries, Triggers and Constraints
2480	2001	Mobile Fleet Application based on SyD Technology
2479	2001	System of Databases: A model with coordination links and a calendar application
1893	1999	Beehive
1726	1995	Very High Scale Integrated Circuit Hardware Description Language Models (VHDL Models)
1401	1995	Self-Compensation Receiver (SCR)

Issued Patents: 9,935,772, 9,769,213

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