Dr. Vijay K. Madisetti
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Address:
225 Dodd Ln
Alpharetta, GA 30005

Employment:

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

Areas of Technical Interest – Topics in Computer Science, Electrical Engineering, and Computer Engineering.

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.

Litigation Experience (2019-2024) With Testimony

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

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, Verizon et al.
Case No. 2:20-cv-00007-RWS
Expert for General Access (GAS)
Technology: LTE/5G
Submitted Expert Reports/Deposition (9/21-22)

Causam v. Ecobee, Itron, et al
Case No. ITC 337-TA-1277
Expert for Causum
Technology: Load Management
Submitted Expert Reports and Deposition (6/22-8/23)

Masimo v. Apple
Case No. ITC 337-TA-1276 and related cases (Trade Secret & Delaware)
Expert for Masimo (2018-)
Technology: Pulse Oximetry
Submitted Expert Reports, Deposition & Trial

TQ Delta v. Nokia, Adtran, CommScope, 2Wire, et al
Cases in Delaware & Texas
Expert for TQ Delta (2019 -)
Technology: DSL and Cable Modems
Submitted Expert Reports, Depositions & Hearings.

Paltalk Holdings v. Cisco Systems Inc.
Western District of Texas (6:21-CV-00757-ADA)
Expert for Paltalk Holdings (2022-2024)
Technology: VOIP Technologies
Submitted Expert Reports and Deposition

Ollnova Technologies v. Carrier Group, Ecobee, et al
Southern District of Florida (Case 9:22-cv-80388-DMM) & ED Texas
Expert for Ollnova (2022-2023)
Technology: IoT
Submitted Report and Deposition & Trial

VideoLabs v. Asus, et al
Case No: ITC 337-TA-1323
Expert for VideoLabs (2022-2023)
Technology: Video Conferencing
Reports and Depositions

3GKL/KPN v. LG/Gemalto, TCL, HTC, Blackberry
Case No: 1;17-cv-00086-LPS
Expert for KPN/3GL (2017-2023)
Technology: Wireless Communications, Video Conferencing
Reports, Depositions, Trial

ViaTech v. Adobe
District of Delaware (CA No. 20-358-RGA-MPT)
Expert for ViaTech (2019-2023)
Technology: Software Licensing
Reports, Deposition, and Trial Testimony

Zilkr v. Cisco
ED Texas, Marshall (Case 2:22-CV-166-JRB-RSP)
Expert for Zilkr (2022-)
Technology: Webex
Reports & Deposition

HouseCanary versus Amrock/Intuit
District Court Bexar County, Tx (2016-CI-06300)
Expert for House Canary (2023-)
Technology: Machine Learning
Reports & Deposition

SpaceTime 3D v. Apple
WD Texas Waco (1-23-cv-00553-ADA)
Expert for SpaceTime 3D
Technology: User Interfaces (2022-)
Reports & Deposition

Pantech v. LG

ED Texas Texarkana (5:22-cv-00113)
Expert for LG (2023-2024)
Technology: Multitasking in Mobile Platforms
Reports & Deposition.

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, VW, Estech, Amazon, Ring, Digital Ally, On Semiconductor, LoganTree, Unified Patents, BMC Software, Masimo, Sentius, BMW, Facebook, LG, PAWS, Google, Daimler, FedEx, Surge LLC, 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.

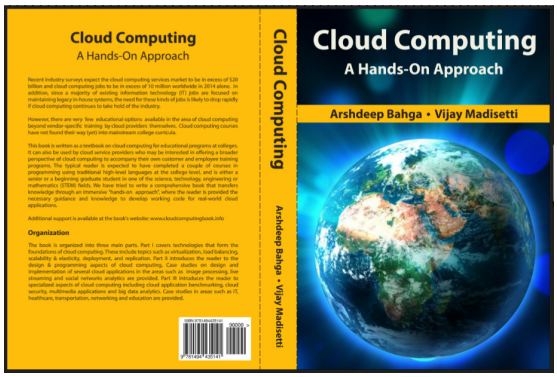
4. **VHDL: Electronics Systems Design Methodologies**.
   Madisetti, V. K. (Editor)
   Boston: MA, IEEE Standards Press, 2000, ISBN 0-7381-1878-8.

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.

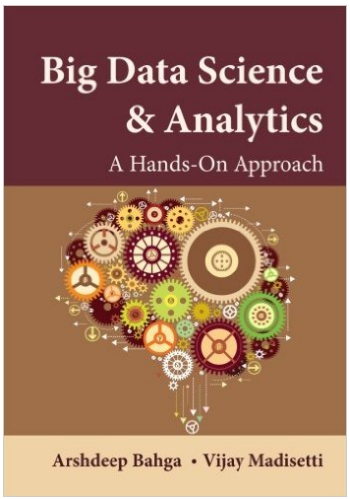
7. **Cloud Computing: A Hands-On Approach**
   A Bahga, V. Madisetti (2013)
   KDP Press, 2013, 454 pp. Outside US Published by *Universities Press* (Ex-Pearson). Selected as *Best in Computing 2014* (By *ACM Computing Reviews*)

8. **Internet of Things: A Hands-On Approach**
   A Bahga, V. Madisetti (2014)
   KDP Press, 2014, 450 pp. Outside US Published by *Universities Press* (Ex-Pearson),



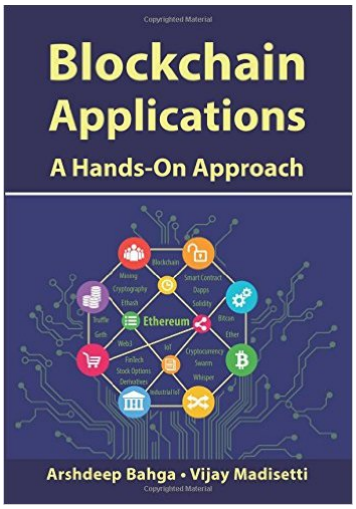
9. Big Data Science & Analytics: A Hands-On Approach
A Bahga, V. Madisetti (2016)
KDP Press, 2016, 542 pp.

[*The book will tremendously benefit those who are interested in BDA*: *ACM Computing Reviews]*



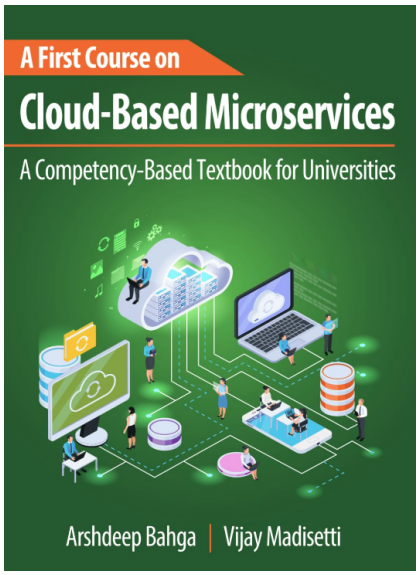
10.Blockchain Applications: A Hands-On Approach
A Bahga, V. Madisetti (2017)
KDP Press, 2017, 380 pp.

[The balance between explanation of architecture and more technical proof of concept through code is quite engaging: ACM Computing Reviews]



11. Cloud Solutions Architect: A Hands-On Approach
A Bahga, V. Madisetti (2020)
KDP Press, 2020, 930 pp.

12. A First Course in Cloud-Based Microservices
A Bahga, V. Madisetti (2024)
KDP Press, 2024, 590 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

Issued US Patents (Recent)

[1] 11,580,540 Methods and systems for smart contracts for security and filtering, Issued February 14, 2023

[2] 11,556,928 Methods and systems for smart contracts for security and filtering, Issued January 17, 2023

[3] 11,553,039 Service meshes and smart contracts for zero-trust systems, Issued January 10, 2023

[4] 11,538,031 Method and system for identity and access management for blockchain interoperability, Issued December 27, 2022

[5] 11,528,147 Verifying integrity and secure operations of cloud-based software services, Issued December 13, 2022

[6] 11,526,879 Method and system for zero-knowledge and identity based key management for decentralized applications, Issued December 13, 2022

[7] 11,494,764 Methods and systems for smart contracts for security and filtering, Issued November 8, 2022

[8] 11,483,622 Hybrid blockchains and streamchains using non-crypto hashes for securing audio-, video- image-, and speech-based transactions and contracts, Issued October 25, 2022

[9] 11,379,612 Method and system for securing cloud storage and databases from insider threats and optimizing performance, Issued July 5, 2022

[10] 11,316,933 Service meshes and smart contracts for zero-trust systems, Issued April 26, 2022

[11] 11,316,690 Blockchain token-based cloud orchestration architecture for discrete virtual network instances, Issued April 26, 2022

[12] 11,314,695 Method and system for real-time collaboration and annotation-based action creation and management, Issued April 26, 2022

[13] 11,283,865 Service meshes and smart contracts for zero-trust systems, Issued March 22, 2022

[14] 11,250,394 Method and system for blockchain-based gemstone ownership, identity, custody, supply-chain transfer, trading, and secure payments, Issued February 15, 2022

[15] 11,226,938 Method and system for real-time collaboration and event linking to documents, Issued January 18, 2022

[16] 11,223,877 Hybrid blockchains and streamchains using non-crypto hashes for securing audio-, video-, image-, and speech-based transactions and contracts, Issued January 11, 2022

[17] 11,222,331 Method and system for blockchain-based gemstone ownership, identity, custody, supply-chain transfer, trading, and secure payments, Issued January 11, 2022

[18] 11,212,268 Method and system for identity and access management for blockchain interoperability, Issued December 28, 2021

[19] 11,080,240 Method and system for real-time collaboration and annotation-based action creation and management, Issued August 3, 2021

[20] 11,074,650 Method and system for blockchain-based gemstone ownership, identity, custody, supply-chain transfer, trading, and secure payments, Issued July 27, 2021

[21] 10,983,768 Method and system for persistent helpers for functions as a service (FAAS) in cloud computing environments, Issued April 20, 2021

[22] 10,853,772 Method and system for exchange of value or tokens between blockchain networks, Issued December 1, 2020

[23] 10,579,643 Method and system for tuning blockchain scalability, decentralization, and security for fast and low-cost payment and transaction processing, Issued March 3, 2020

[24] 10,503,927 Method and system for securing cloud storage and databases from insider threats and optimizing performance, Issued December 10, 2019

[25] 10,460,283 Smart contract optimization for multiparty service or product ordering system, Issued October 29, 2019

[26] 10,459,946 Method and system for tuning blockchain scalability, decentralization, and security for fast and low-cost payment and transaction processing, Issued October 29, 2019

[27] 10,402,589 Method and system for securing cloud storage and databases from insider threats and optimizing performance, Issued September 3, 2019

[28] 10,394,845 Method and system for tuning blockchain scalability for fast and low-cost payment and transaction processing, Issued August 27, 2019

[29] 10,289,631 Method and system for tuning blockchain scalability for fast and low-cost payment and transaction processing, Issued May 24, 2019

[30] 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

[31] 10,243,743 Tokens or crypto currency using smart contracts and blockchains, Issued March 26, 2019

[32] 10,204,339 Method and system for blockchain-based combined identity, ownership, integrity and custody management, Issued February 12, 2019

[33] 10,204,148 Method and system for tuning blockchain scalability, decentralization, and security for fast and low-cost payment and transaction processing, Issued February 12, 2019

[34] 10,121,143 Method and system for blockchain-based combined identity, ownership, integrity and custody management, Issued November 6, 2018

[35] 10,102,526 Method and system for blockchain-based combined identity, ownership, integrity and custody management, Issued October 16, 2018

[36] 10,102,265 Method and system for tuning blockchain scalability for fast and low-cost payment and transaction processing, Issued October 16, 2018

[37] 9,935,772 Methods and systems for operating secure digital management aware applications, Issued April 3, 2018

[38] 9,769,213 Method and system for secure digital object management, Issued September 19, 2017

8 *International Journal of Electronic Commerce Studies*

Table 3. Patent by assignee

Applicant (Assignee)	Patents	%	Applicant (Assignee)	Patents	%
IBM	47	14.0%	Wells Fargo Bank	4	1.2%
Accenture Global Solutions	28	8.4%	Alibaba	3	0.9%
Bank of America	24	7.2%	Dell	3	0.9%
Capital One Services	12	3.6%	The Bank Of New York Mellon	3	0.9%
Mastercard	11	3.3%	The Toronto-Dominion Bank	3	0.9%
Guardtime IP Holdings Limited	8	2.4%	Verizon Patent And Licensing	3	0.9%
Madisetti Vijay K.	8	2.4%	Winklevoss I.P.	3	0.9%
Black Gold Coin, Inc.	7	2.1%	SAP	2	0.6%
Cisco	7	2.1%	Sony	2	0.6%
Acronis International	5	1.5%	Stampery	2	0.6%
Blockchain Asics	5	1.5%	Uipco	2	0.6%
Tran Bao	5	1.5%	Vmware	2	0.6%
Intel	4	1.2%	Walmart Apollo	2	0.6%
Northern Trust	4	1.2%	Wiig Rex	2	0.6%
Shocard	4	1.2%	Xage Security	2	0.6%

Ranked #8 in the list of issued US patents in the area of blockchain

Ranking in the area of US patents issued in the area of blockchain technology in 2020

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 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.

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

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.

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.;
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 Protocols,
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.

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",
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6. **High speed migration of multidimensional seismic data**
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41. Streaming H.264/AVC video over the Internet
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Other Publications

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2. **Voice & Video over Mobile IP Networks <draft-madisetti-argyriou-voice-video-mip-00.txt>**
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3. **Enhancements to ECRTP with Applications to Robust Header Compression for Wireless Applications**. **<draft-madisetti-rao-suresh-rohc-00.txt>**
   Madisetti, V.; Rao, S., Suresh, N.
   IETF Internet-Draft, June 30, 2003.

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

   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.
US Air Force/Univ. of Florida

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

18. Subrato K. De, 2002
Design of a Retargetable Compiler for DSP
Member of Technical Staff, Qualcomm

US Army Sensors Lab Research Excellence Award, 1999

19. Chonlameth Aripnikanondt, 2004
System-on-Chip Design with UML
Professor, King Mongkut's University, Thailand

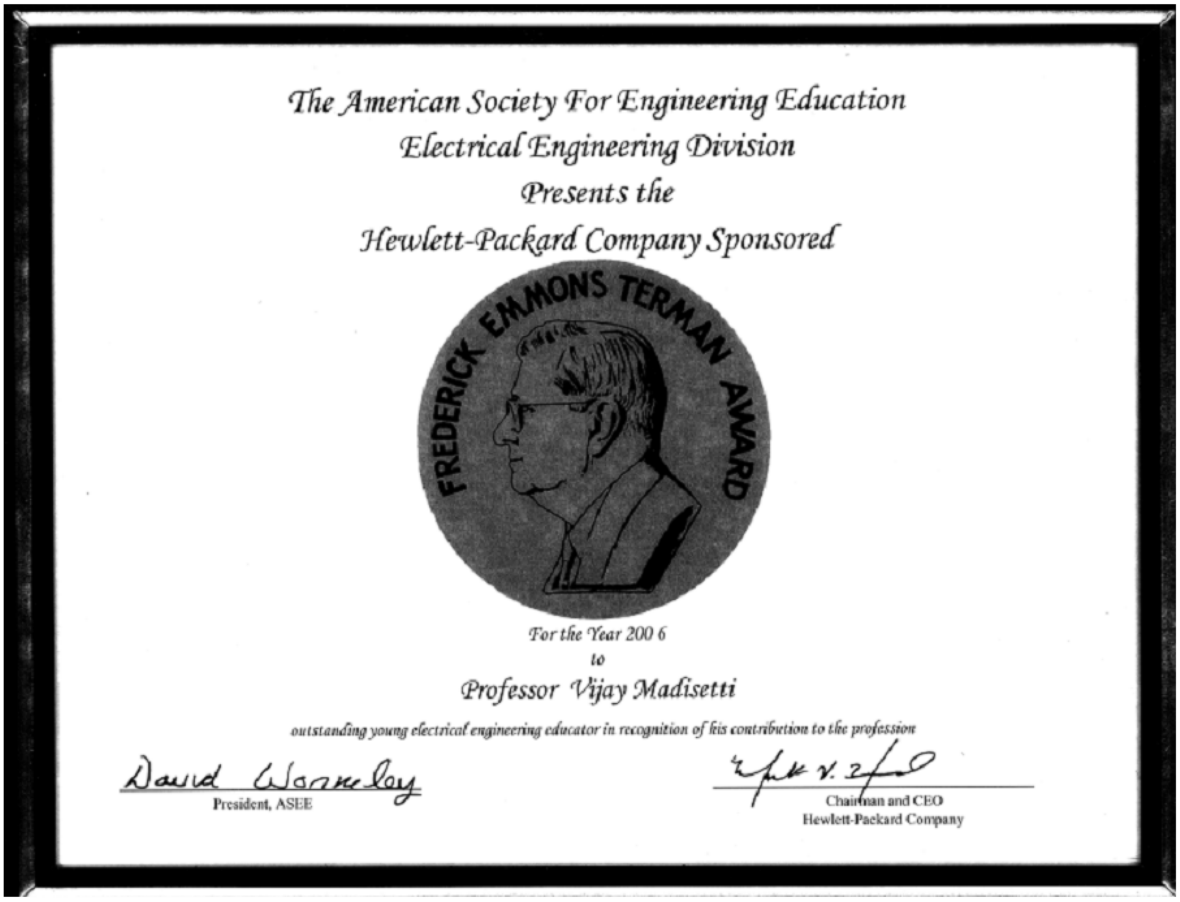
US Army Sensors Lab Research Excellence Award, 1999

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

21. **Antonios Argyriou, 2005**, Research Scientist, Philips
22. **Pilho Kim, 2009, Scientist,** VP Technologies, Inc.
23. **M. Sinnokrot, 2009, Staff Engineer,** Apple
24. **A. Yusuf, 2013, Professor,** National University, Pakistan
25. **Joel Corporan**, **2023**, Senior Scientist, Warner Media, USA

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
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
2843	2004	Method and Apparatus for Improving the Performance of Wireless LANs
2825	2003	Method and Apparatus for Optimal Partitioning and Ordering of Antennas for Layered Space-Time Block Codes in MIMO Communications Systems
2815	2003	How to Rapidly Develop a SyD Application
GSU-023	2003	Rapid Development of SyD Applications
2810	2003	System on Mobile Devices Middleware Design
2718	2003	A Transport Layer Algorithm for Improved Anycast Communication
2717	2003	A Novel Transport Layer Load-Balancing Algorithm
2716	2003	A Transport Layer QoS Algorithm
2715	2003	A Novel Transport Layer Algorithm for MPLS Performance
2659	2002	A New Algorithm and Technology for Implementing Mobile IP with Applications to Voice and Video over Mobile IP
2656	2002	Debugging with Instruction-Level Reverse Execution
2655	2002	Embedded Software Streaming

2539		System of Databases: An Enabling Technology for Programming
2517	2002	A Dynamic Instantiated Real-Time Operating System Debugger
2516	2002	A Dynamic Real-Time Operating System
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)