

Education

Pennsylvania State University, Harrisburg, PA <i>Master of Engineering</i> (Electrical Engineering) GPA: 3.95 Master's Paper: <i>Theory and Measurement of Unbalanced Differential-Mode Transmission Lines</i>	Dec '05
Delhi College of Engineering, University of Delhi, Delhi, India <i>Bachelor of Engineering</i> (Electrical Engineering) GPA: 3.75	Aug '01

Professional Experience

FCI USA, Inc., Etters, PA <i>Sr. Signal Integrity Engineer</i> <ul style="list-style-type: none">Responsible for design and development of new high-speed interconnect technologies and products that meet industry needsInvolved in formulation, implementation, and evaluation of various IEEE and OIF Standards	Jan '05 -	Onwards
FCI USA, Inc., Etters, PA <i>Signal Integrity Intern</i> <ul style="list-style-type: none">Performed various measurements on high-speed connectorsCreated automation scripts in MATLAB® for characterization of connectors	Jul '04 -	Sep '04
Penn State Harrisburg, Learning Center, Harrisburg, PA <i>Graduate Assistant</i> <ul style="list-style-type: none">Tutored students in calculus, differential equations, dynamics, network analysis, semiconductors, and other courses	Aug '03 -	Jun '04
Penn State Data Center, Harrisburg, PA <i>Programmer</i> <ul style="list-style-type: none">Built websites for different projects at the Penn State Data CenterTroubleshoot programming problems, network problems of the employees	Jun '03 -	Sep '03
Sapient Corporation Pvt. Ltd., New Delhi, India <i>Associate Technology Specialist</i> <ul style="list-style-type: none">Developed technology enabled solutions for Cisco, Opodo, Mercer HR and other internal clients (in teams ranging from 7 to 80 people)Project leader for a team of 5	Sep '01 -	Dec '02
Bharat Electronics Limited, Ghaziabad, India <i>Trainee Engineer</i> <ul style="list-style-type: none">Designed finite impulse response filters using the ADSP-2101 microcomputer Studied adaptive equalizers for use in the troposcatter technology	May '00 -	Jul '00

Technical Skills

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- Engineering Tools:** CST Microwave Studio, Ansoft HFSS, HSPICE, MATLAB® (Image Processing Toolbox, Signal Processing Toolbox, Wavelet Toolbox, Neural Networks Toolbox, SIMULINK®), AutoCAD, 8086 Assembly Language
 - O/S:** Linux, Windows NT, Windows XP/2000/95/98, Solaris
 - Programming Languages:** Expertise in Java, J2EE Technologies, C, C++, Pascal, Fortran
 - Databases:** ORACLE®, MS SQL Server, MS-ACCESS, FOXPRO
 - Web Based Technologies:** HTML, XML, UML, JavaScript (client & server side), JSP, ASP, RMI/IIOP
 - Web Architectures:** EJB's, Servlets
 - Application Servers:** ATG Dynamo App. Server 5.0, Apache Tomcat, Weblogic, Websphere
 - Source Control Tools:** CVS, SourceSafe

Research Experience

- Currently focused on the design of high-speed interconnects
- Designed an enhancement to the JPEG-2000 Image Compression technique using wavelets
- Conducted research on remote real-time monitoring of power systems
- Studied Computer Vision and Image Processing Techniques at the Electrical Engineering department of Indian Institute of Technology (IIT), New Delhi

Publications

- V. Balasubramanian, S. Agili, A. Morales, *A Semi-Automatic Region of Interest Identification Algorithm Using Wavelets*, Optical Engineering Journal, Vol. 46, No. 3, 035003, Mar 07
- V. Balasubramanian, S. Agili, S. B. Smith, *Unbalanced Line Characterization for Differential-Mode Operation*, Microwave and Optical Technology Letters, Vol. 48, No. 6, pp. 1169-1174, Jun 06
- V. Balasubramanian, *Theory and Measurement of Unbalanced Differential-Mode Transmission Lines*, Master's Paper, Pennsylvania State University, Harrisburg, PA, Dec 05
- V. Balasubramanian, S. Agili, S. B. Smith, *Characterization of the Electrical Performance of Different Signal Via Geometries*, Microwave and Optical Technology Letters, Vol. 48, No. 2, pp. 315-320, Dec 05
- V. Balasubramanian, S. Agili, A. Morales, *De-Embedding Techniques in Signal Integrity: A Comparison Study*, Proceedings of Conference on Information Sciences and Systems (CISS), Baltimore, MD, Mar 05
- V. Balasubramanian, S. Agili, A. Morales, *Automatic Region of Interest Identification in Images Using Wavelets*, Proceedings of Conference on Information Sciences and Systems (CISS), Princeton, NJ, Mar 04
- V. Balasubramanian, V. Gera, M. Hanmandlu, *Image Smoothing Using Fuzzy Clustering*, Proceedings of Multimedia University's International Symposium on Information and Communications Technologies (M2USIC), Petaling Jaya, Selangor, Malaysia, Oct 01

Paper Presentations

- *Comparison of S-Parameter Concatenation to Full-Wave Simulation for High-Speed Interconnect Analysis*, DesignCon 2007, Santa Clara, CA, Feb 07
- *Theory and Measurement of Unbalanced Differential-Mode Transmission Lines*, DesignCon 2006, Santa Clara, CA, Feb 06

Professional Membership

- Member of Institute of Electrical and Electronics Engineers (IEEE), since 1998

Recognitions and Awards

- Recipient of Doris Hughes Memorial Award, Penn State University, 2004
- Recipient of International Student Grant-In-Aid, Penn State University, Fall 2004 (tuition waiver)
- Recipient of Research Assistantship, Department of Electrical Engineering, Penn State University, Fall 2003 and Spring 2004 (two consecutive semesters)

Services to Professional and Academic Communities

- Secretary, IEEE Susquehanna Section, Jan '06 - Onwards
- Student Activities Coordinator, IEEE Susquehanna Section, Mar '05 - Dec '05
- Newsletter Editor, IEEE Susquehanna Section, 2003 - 2005
- President, International Affairs Association, Penn State Harrisburg, 2003 - 2004
- Student Council Member, IEEE/IEE Student Chapter, Delhi College Of Engineering, 2000 - 2001

References Available Upon Request