

Vigyan 'Vigs' Chandra, PhD

Contact

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Professional Profile

- Enthusiastic about imparting technical knowledge using modern teaching techniques
- Keen on encouraging and steering the professional development of students
- Four years of experience in industrial control, trouble-shooting state-of-the-art automated systems
- Commitment to continuous improvement in teaching, service and scholarly endeavors

Education

- **PhD**, Electrical and Computer Engineering, University of Kentucky (UK), Kentucky, USA, Aug., 2002
Topic: New formalisms for modeling discrete event systems and their interactions
- **MS**, Manufacturing Systems Engineering, UK, Kentucky, USA, Dec., 2003
- **MS**, Electrical Engineering, UK, Kentucky, USA, Dec., 1997
- **BE**, Electrical and Electronics Engineering, Birla Institute of Technology (BIT), Ranchi, India, Apr., 1991

Professional Licensure & Certifications

- Project Lead The Way (PLTW) Digital Electronics instructor certification training, 2008
- **Security+**, CompTIA, No. 10423844, 2006
- Core-curriculum completion certificate, Industrial Ethernet University, 2005
- **CIT**, Certified industrial technologist, 2004
- **A+**, CompTIA, No. 10423844, 2004
- **SCJP2**, Sun certified programmer for the Java 2 platform, No. SP3026320, 2001
- **MOUS**, Microsoft office user specialist, Access 97 expert user, No. 1695265, 2001
- **MCP 2000**, Microsoft certified professional, Windows 2000, No. 2350896, 2001
- **CCNA 2.0**, Cisco certified network associate, No. CSC010258046, 2001-04
- **CIW**, Certified internet webmaster, associate designation, 2001
- **Network+**, CompTIA, No. 10423844, 2001
- **iNet+** CompTIA, No. 10423844, 2001
- Extra class radio amateur, **ham**, call sign KG4IEA, 2000
- **EIT/FE**, Engineer-in-training/Fundamentals of Engineering, No. 11560, State of Kentucky, 2000

Awards/Professional Affiliations

- Golden Apple Award certificate for Teaching Excellence, student nomination, EKU, 2008-09
- Who's Who Among American Teachers & Educators, 2007
- Senior Member '05, Institute of Electrical and Electronics Engineers (IEEE), No. 41454287; 2001-onwards
- Senior Member '05, Instrumentation, Systems and Automation society (ISA), No. 32170444; 2000-onwards
- Member, United Who's Who Registry of Executives and Professionals, 2006
- Member, Kentucky Society of Professional Engineers (KSPE), No. 104031120; 2000-06
- Member, Kentucky Applied Technology Education Association (KATEA); 2004-onwards
- Member, Intelligent Processing and Manufacturing of Materials (IPMM); 2005-onwards
- Member, National Association of Industrial Technology (NAIT), No. 6801; 2003-onwards
- Member, Epsilon Pi Tau, International honorary for professionals in technology; 2005-onwards
- Above & Beyond Award, Student success institute PLUS mentor, EKU, 2002

Hindustan Motors Limited (HML), Maintenance department, Indore, India (July 1991- July 1995)

Position: Senior Engineer, Engineer, Graduate Engineer Trainee

Maintenance department

Passenger Car Division (PCD)

Pithampur, Sector-III, P. O. Sagore, Dhar

M.P. 454774, India

Phone: 072934-5245

Supervisor: Mr S. G. Mandhaniya, Manager

- Senior Engineer (Nov. 93 – July 95):
 - Supervised installation and commissioning of machine tools.
 - Planned the spare parts inventory requirement for machinery, heating and testing equipment.
 - Implemented ISO-9000 quality standards in the maintenance department at HML.
 - Oversaw electric cabling, programming of programmable logic controller (PLC) devices.
 - Trained maintenance personnel in electrical, PLC operations and troubleshooting procedures.
 - Designed and performed on-line modifications on PLC and contactor logic based machinery.
 - Acted as liaison between machine tool manufacturers and HML's maintenance department.
- Engineer (July 92 – Nov. 93):
 - Developed PLC logic, wiring and documentation of electrical panels for in-house machines tools.
 - ISO 9000 team member of the maintenance department for establishing and implementing standards.
 - Enhanced existing circuitry to make machine tool operations safe.
 - Carried out extensive PLC programming of control tasks on Siemens, Omron, Fagor, Messung and Aspa PLCs relating to machine safety, cutting production times, and optimizing operation sequences.
 - Conducted breakdown analysis and preventive maintenance for improving machine downtime.
- Graduate Engineer Trainee (July 91 – July 92):
 - Documented electrical circuit diagrams after upgrades and modifications.
 - Modified PLC and contactor logic for making machine operations safer, while enhancing productivity.
 - Attending trainings in management techniques, maintenance of electrical, electronic, mechanical and hydraulic equipment.
 - Logged maintenance activity in a PC based maintenance software.
 - Calibrated electronic drives and instruments.

Professional Publications

Books

- Patrick, D. R., Fardo, S. W., & Chandra, V. (2007). *Electronic Digital System Fundamentals* (1st edition). Lilburn, GA: Fairmont. ISBN-10: 1420067745, ISBN-13: 978-1420067743.
- Chandra, V. (2009). *Every Word A Rainbow* (Kindle edition). Amazon Digital Services, ASIN: B00221Q478.

Journals

- Richardson, R., Chandra, V. & Fardo, S. (April, 2008). Facilitating creativity in the business & technology classroom. *The Kentucky Business Education Association Journal*, 20-22.
- Chandra, V., Bhattacharyya, S., & Mohanty, S. (2006) A systematic methodology for actuator augmentation in the supervisory control of discrete event systems. *Journal of Systemics, Cybernetics and Informatics*.
- Chandra, V., & Bhattacharyya, S. (2006). On the design of adaptive supervisors for discrete event systems. *Journal of Systemics, Cybernetics and Informatics*.
- Chandra, V., & Kilgore, J. (April, 2005). Computer certification based coursework in undergraduate business and technology programs. *The Kentucky Business Education Association Journal*, 12-14.
- Chandra, V., Huang, Z., Qiu, W., & Kumar, R. (September, 2003). Prioritized synchronous composition with exclusion and generation for the interaction and control of discrete event systems. *Mathematical and Computer Modeling of Dynamical Systems*, 9(3), 255-280.
- Huang, Z., Chandra, V., Jiang, S., & Kumar, R. (September 2003). Modeling discrete event systems with faults using a rules based modeling formalism. *Mathematical and Computer Modeling of Dynamical Systems*, 9(3), 233-254.

- Chandra, V., Kumar R., & Huang, Z (May 2003). Automated control of an assembly line using discrete event system control theory. *IEEE transactions on System, Man and Cybernetics, Part C: Applications and reviews*, 33(2), 284-289.
- Chandra, V., & Kumar, R. (March 2002). A event occurrence rules based compact modeling formalism for a class of discrete event systems. *Mathematical and Computer Modeling of Dynamical Systems*, 8 (1), 49-73.
- Chandra, V., & Kumar, R. (December 2001). A discrete event systems modeling formalism based on event occurrence rules and precedences. *IEEE Transactions on Robotics and Automation*, 17 (6), 785-794.
- Jiang, S., Huang, Z, Chandra, V., & Kumar, R. (August 2001). A polynomial algorithm for testing diagnosability of discrete event systems. *IEEE Transactions on Automatic Control*, 46(8), 1318-1321.

Conference Proceedings

- Baratto, R., Chandra, V., & Field, D. (October, 2007). Ensuring the Safety and Health of Employees in Global Industries Using Lean Systems. *Proceedings of the National Association of Industrial Technology (NAIT 2007) convention*, Panama City Beach, FL.
- Chandra, V. & Cox, L. (May 2007). On how our differences strengthen us: Conveying the importance of diversity to students in business and technology classes. *Proceedings of the 7th Hawaii International Conference on Business*, Honolulu, HI.
- Sheliga, M., & Chandra, V. (October 2006). A Truly Large Group Team Project for a Freshman Level Digital Electronics Class. *Proceeding of the 2006 International Journal of Modern Engineering (IJME) Conference*, Kean University, Union, NJ.
- Chandra, V., Bhattacharyya, S., & Mohanty, S. (July 2006). Enlarging the Scope of Control Specifications in the Supervisory Control of Acyclic Discrete Event Systems. *Proceedings of the 3rd International Conference on Cybernetics and Information Technologies, Systems and Applications (CITSA 2006)*, Orlando, FL.
- Chandra, V., & Bhattacharyya, S. (October 2005). Adaptive supervisory control of hybrid systems having discrete event abstractions. *Proceedings of the Instrumentation, Systems and Automation (ISA) EXPO 2005 Technical Conference*, Chicago, IL.
- Chandra, V., Bhattacharyya, S., & Mohanty, S. (July 2005). On the rapid reconfiguration of modular manufacturing systems. *Proceedings of the conference on Intelligent Processing and Manufacturing of Materials (IPMM 2005)*, Monterey, CA.
- Chandra, V., Bhattacharyya, S., & Mohanty, S. (July 2005). A systematic methodology for actuator augmentation in the supervisory control of discrete event systems. *Proceedings of the 2nd International Conference on Cybernetics and Information Technologies, Systems and Applications (CITSA 2005)*, Orlando, FL. Awarded best paper presented in the session "Control and Applications of Cybernetics & Informatics in Other Scientific and Engineering Discipline".
- Chandra, V., & Bhattacharyya, S. (July 2005). On the design of adaptive supervisors for discrete event systems. *Proceedings of the 9th World Multiconference on Systemics, Cybernetics and Informatics (WMSCI 2005)*, Orlando, FL. Awarded best paper presented in the session "Control Systems, Technologies and Applications".
- Chandra, V., & Bhattacharyya, S. (July 2004). Automatic extraction of discrete event system controllers. *Proceedings of the 8th World Multi-conference on Systemics, Cybernetics and Informatics (SCI)*, Orlando, FL.
- Bhattacharyya, S., Huang, Z., Chandra, V., & Kumar, R. (June 2004). A discrete event systems approach to network fault management detection and diagnosis of faults. *Proceedings of the American Control Conference (ACC)*, Boston, MA.
- Huang, Z., Bhattacharyya, S., Chandra, V., Jiang, S., & Kumar, R. (June 2004). Diagnosis of discrete event systems in rules-based model using first-order linear temporal logic. *Proceedings of the American Control Conference*, Boston, MA.
- Qiu, W., Kumar, R., & Chandra, V. (June 2004). Decentralized control of discrete event systems using prioritized composition with exclusion. *Proceedings of the American Control Conference*, Boston, MA.
- Chandra, V., Huang, Z., & Kumar, R. (June 2003). Concurrent, asynchronous and generative interactions for the modeling and control of discrete event systems. *Proceedings of the American Control Conference*, Denver, CO.
- Huang, Z., Chandra, V., Jiang, S., & Kumar, R. (December 2002). Modeling discrete event systems with faults using a rules based modeling formalism. *Proceedings of the Control and Decision Conference*, Las Vegas, NV.

- Chandra, V., & Kumar, R. (May 2002). A event occurrence rules based compact modeling formalism for a class of discrete event systems. *Proceedings of 2002 American Control Conference*, Anchorage, AK.
- Mohanty, S. R., Chandra, V., & Kumar, R. (December 2001). An optimal controller for acyclic discrete event processes. *Proceedings of the International Conference on Energy Automation & Information Technology (EAIT)*, Indian Institute of Technology (IIT), Kharagpur, India.
- Chandra, V., Mohanty, S. R., & Kumar, R. (June 2001). Automated control synthesis for an assembly line using discrete event system control theory. *Proceedings of the American Control Conference*, Arlington, VA.
- Chandra, V. & Kumar, R. (June 2001). A new modeling formalism and automata model generator for a class of discrete event systems. *Proceedings of the American Control Conference*, Arlington, VA.
- Chandra, V. & Kumar, R. (June 2001). Decentralized supervisory control of discrete event systems with multiple local specifications. S. Jiang, *Proceedings of the American Control Conference*, Arlington, VA.
- Mohanty, S. R., Chandra, V., Kumar, R. (May 1999). A computer implementable algorithm for optimal controller synthesis for acyclic discrete event processes. *Proceedings of the International Conference on Robotics and Automation (ICRA)*, Detroit, MI.

Presentations

- Kilgore, J. & Chandra, V. (Nov., 2009). Implementing Power Saving Green Technologies in a Computer Network Laboratory Environment. Accepted for presentation at the *Association of Technology, Management and Applied Engineering (ATMAE 2009) national convention*, Louisville, KY.
- Chandra, V. & Reese, G. (Nov., 2009). Strengthening Undergraduate Computer Electronics Technology Courses Using Interlinked Activities, Mini-Projects and a Problem Solving Approach to Learning. Accepted for presentation at the *Association of Technology, Management and Applied Engineering (ATMAE 2009) national convention*, Louisville, KY.
- Chandra, V., Richardson, R. & Ross, T. (Nov., 2009). By the Numbers: Ideas for Increasing Enrollment in Technology Programs. Accepted for presentation at the *Association of Technology, Management and Applied Engineering (ATMAE 2009) national convention*, Louisville, KY.
- Chandra, V., Richardson, R. & Ross, T. (Nov., 2008). Using troubleshooting scenarios for integrating safety and critical thinking in technology laboratories. *The National Association of Industrial Technology (NAIT 2007) convention*, Nashville, TN.
- Steinbach, G. & Chandra, V. (Nov., 2008). Using free software tools for teaching CAD fundamentals in technology classes. *The National Association of Industrial Technology (NAIT 2007) convention*, Nashville, TN.
- Richardson, R. & Chandra, V., (Nov., 2008). Improving transfer of learning from the technology classroom to industry and management. *The National Association of Industrial Technology (NAIT 2007) convention*, Nashville, TN.
- Richardson, R., Chandra, V. & Kilgore, J. (Nov., 2008). Determining the right blend of online and in-class interaction for technology classes. *The National Association of Industrial Technology (NAIT 2007) convention*, Nashville, TN.
- Chandra, V., Kilgore, J., & Richardson, R. (March, 2007). Validating the Computer Electronic Networking BS degree exit exam based on student performance on the professional computer technology association Network+ certification. Poster presentation at Eastern Kentucky University, Richmond, KY.
- Baratto, R., Chandra, V., & Field, D. (October, 2007). Ensuring the Safety and Health of Employees in Global Industries Using Lean Systems. *The National Association of Industrial Technology (NAIT 2007) convention*, Panama City Beach, FL.
- Chandra, V., Richardson, R., & Ross, T. (October, 2007). Cornerstone, Capstone & Beyond: Recruiting, Graduating and Tracking Students in Technology Programs. *The National Association of Industrial Technology (NAIT 2007) convention*, Panama City Beach, FL.
- Chandra, V., Lloyd, T., & Adams, T. (October, 2007). Adding a Business Flavor to Enhance Technology Capstone Projects. *The National Association of Industrial Technology (NAIT 2007) convention*, Panama City Beach, FL.
- Chandra, V. & Cox, L. (May 2007). On how our differences strengthen us: Conveying the importance of diversity to students in business and technology classes. *The 7th Hawaii International Conference on Business*, Honolulu, HI.
- Chandra, V., Steinbach, G., & Pschorr, R. (November, 2006). Creating an online advising course for technology programs. *The National Association of Industrial Technology (NAIT 2006) convention*, Cleveland, OH.

- Chandra, V., Jones, K., & Lloyd, T. (November, 2006). Bidding goodbye to Google-eyed students: Strategies for researching information online. *The National Association of Industrial Technology (NAIT 2006) convention*, Cleveland, OH.
- Chandra, V., Kilgore, J., & Richardson, R. (November, 2006). The NAIT program assessment, college strategic plan and departmental exit exam: A 3-way handshake. *The National Association of Industrial Technology (NAIT 2006) convention*, Cleveland, OH.
- Chandra, V., Bhattacharyya, S., & Mohanty, S. (July 2006). Presented co-authored paper 'Enlarging the scope of control specifications in the supervisory control of acyclic discrete event systems'. *The 3^d International Conference on Cybernetics and Information Technologies, Systems and Applications (CITSA 2006)*, Orlando, FL.
- Chandra, V., Fardo, S., & Callen, P. (November, 2005). On the development of an integrated course for electrical machinery and drives. *The National Association of Industrial Technology (NAIT 2005) convention*, St Louis, MO.
- Richardson, R. E., Chandra, V., & Fardo, S. (November, 2005). Facilitating creativity in the online technology classroom. *The National Association of Industrial Technology (NAIT 2005) convention*, St Louis, MO.
- Chandra, V., & Kilgore, J. (November, 2005). Planning the introduction of computer certification-based coursework in the technology curriculum. *The National Association of Industrial Technology (NAIT 2005) convention*, St Louis, MO.
- Chandra, V., Bhattacharyya, S., & S. Mohanty. (July 2005). Presented co-authored paper 'On the rapid reconfiguration of modular manufacturing systems'. *Conference on Intelligent Processing and Manufacturing of Materials (IPMM 2005)*, Monterey, CA.
- Chandra, V., & Bhattacharyya, S. (July 2005). Presented co-authored paper 'On the design of adaptive supervisors for discrete event systems'. *The 9th World Multiconference on Systemics, Cybernetics and Informatics (WMSCI 2005)*, Orlando, FL.
- Chandra, V., Bhattacharyya, S., & Mohanty, R. (July 2005). Presented co-authored paper 'A systematic methodology for actuator augmentation in the supervisory control of discrete event systems'. *The 2nd International Conference on Cybernetics and Information Technologies, Systems and Applications (CITSA 2005)*, Orlando, FL.
- Chandra, V., Richardson, R. E., & Ross, T. (October 2004). No 'mind' left behind – Critical thinking in the online classroom. *The National Association of Industrial Technology (NAIT 2004)*, Louisville, KY.
- Chandra, V., & Bhattacharyya, S. (July 2004). Presented co-authored paper 'Automatic extraction of discrete event system controllers'. *The 8th World Multi-conference on Systemics, Cybernetics and Informatics*, Orlando, FL.
- Chandra, V., Richardson, R., & Kilgore, J. (Feb. 2004-07). Showcase presenter for the electronics and communication simulation software used in the Computer Electronics Networking B. S. Degree classes; Technology Student Association (TSA) regional competition. Dept. of Technology, Eastern Kentucky University, Richmond, KY.
- Chandra, V., Huang, Z., & Kumar, R. (June 2003). Presented co-authored paper 'Concurrent, asynchronous and generative interactions for the modeling and control of discrete event systems'. *The American Control Conference (ACC)*, Denver, CO.
- Chandra, V., & Kumar, R. (May 2002). Presented co-authored paper 'A event occurrence rules based compact modeling formalism for a class of discrete event systems. *The American Control Conference (ACC)*, Anchorage, AK.
- Chandra, V., Mohanty, S. R., & Kumar, R. (June 2001). Presented co-authored paper Automated control synthesis for an assembly line using discrete event system control theory. *The American Control Conference (ACC)*, Arlington, VA.
- Chandra, V., & Kumar, R. (June 2001). Poster presentation 'A new modeling formalism and automata model generator for a class of discrete event systems'. *The American Control Conference (ACC)*, Arlington, VA.
- Chandra, V., & Kumar, R. (June 2000). Poster presentation 'Discrete event modeling and control of a miniature assembly line built using LEGO blocks'. *The National Science Foundation (NSF) Workshop on Logic Control of Manufacturing Systems*, University of Michigan, Ann Arbor, MI.

Articles in Book Chapters

- Chandra, V., Kilgore, J., & Sheliga, M. (2006). Finding, freeing and making time for collaborative work: Conquer work and time by dividing it. In Hal Blythe and Charlie Sweet (Eds.), *It Works for Us, collaboratively*, pp. 9-10, Stillwater, OK: New Forums Press.

- Chandra, V., Kilgore, J., Richardson, R., & Sheliga, M. (2006). Techniques for forming long-lasting collaborations. In Hal Blythe and Charlie Sweet (Eds.), *It Works for Us, collaboratively*, pp. 10-12, Stillwater, OK: New Forums Press.
- Chandra, V., & Davis, E. (2006). Shaken not stirred – Ideas for encouraging faculty collaboration. In Hal Blythe and Charlie Sweet (Eds.), *It Works for Us, collaboratively*, pp. 12-13, Stillwater, OK: New Forums Press.
- Richardson, R. E., & Chandra, V. (2006). The development of a collaborative online class in creative problem solving. In Hal Blythe and Charlie Sweet (Eds.), *It Works for Us, collaboratively*, pp. 62-63, Stillwater, OK: New Forums Press.
- Chandra, V., & Kilgore, J. (2004). Changes in latitudes, changes in attitudes: Reorganizing class material for online learning. In Hal Blythe and Charlie Sweet (Eds.), *It Works for Me, online*, pp. 35-36, Stillwater, OK: New Forums Press.

Professional Activities

Teaching Development

- Assisted in development of a graduate online class on creative problem solving, with R. Richardson, summer 2005.
- Developed an assisted online course on Computer applications in industry (TEC161), summer 2003.
- Created a Credit-by-Exam in consultation with the electronics curriculum committee R. Richardson and J. Kilgore for:
 - digital electronics (EET252), 2003,
 - electronic circuits and devices (EET257), 2004.
- Attended the 22nd Lilly conference on college teaching, 2002.

Committee Work

- University Intellectual Property (IP) committee, ECU (2007), Chair (2008)
- University diversity committee, ECU (2006 onwards)
- Facilitator, University library committee, ECU (2006), Chair (2007)
- Program committee member, World Multiconference on Systemics, Cybernetics and Informatics (WMSCI 2006).
- Presentation and selected paper committee, Electrical Electronics and Computer Technology (EECT), National Association of Industrial Technology (NAIT), 2006.
- Associate member of the graduate faculty at Eastern Kentucky University, 2003-onwards.
- Secretary, Electronics Advisory committee and CEN/CET curriculum committee, 2005-onwards.
- Member of the following committees in the department of Technology at ECU:
 - Electronics curriculum (2002 Fall onwards, chair 2006 Spring onwards)
 - Industrial technology (2006 Fall onwards)
 - Graduate studies (2003 Fall, 2004, 2005, 2006)
 - Facility and equipment planning committee (2006 Fall onwards)
 - Academic practices (2003 Fall, 2004, 2005 Spring)
 - Strategic/Action/Assessment planning (2005 Fall, 2006 onwards)
 - Information technology (2005 Fall, 2006 onwards)
 - Faculty performance (2004 Fall, 2005 Spring, chair 2007 Fall, chair 2008 Spring)
- Coordinated the libraries section of the accreditation report for the Industrial Technology program under NAIT guidelines, ECU, 2004.
- Served on the graduate committee of the following Industrial Technology M.S. degree candidates, and evaluated their final projects and presentations:
 - Khairul Anuar, James Couch, Cyrus Motaburi, 2008
 - Walter Bryan Jr., 2007
 - Tim Foley, Naveen Gona, Dennis Moody, Christopher Sanders, Louis Romanzi, Adam Walker, Deborah Strano, Jack McIntosh, 2005.
 - Steve Richardson, Quping Shi, 2004
 - Ben Kovaleski, Kyle Chism, Chris Snarr, Troy Storer, Tim Frasure, Steve Hume, 2003.
- Created documentation for course revisions for the CET and CEN programs along NAIT guidelines in consultation with the electronics curriculum committee, 2004-05.

- Along with electronics curriculum committee reviewed the initial accreditation report for the CEN program, 2004-05.
- Committee member for selecting a tenure-track Assistant Professor, Computer Electronics Networking BS degree program, Department of Technology, ECU, 2004.
- Developed table for evaluating applicant CEN faculty applicant portfolios, 2005.
- Along with the electronics curriculum committee developed the CEN program portion of the documentation, required by the Department of Technology, as part of the Southern Association of Colleges and Schools (SACS) accreditation, 2003-04.
- In consultation with the electronics curriculum committee developed the BS (CEN) and AS (CET) degree programs curriculum planning sheets used for advising purposes, 2004.
- Attended and maintained minutes of CEN/CET advisory council meetings, 2005.
- Secretary, Kentucky Society of Professional Engineers UK branch, 2001
- Graduate representative on panel for reviewing UK's department of Electrical Engineering, 2000.

Reviewer & Judge

- Judge for the 7th Annual Kentucky Science and Engineering Fair (KY-SEF), ECU, 2009
- Reviewer for the 17th International Federation of Automatic Control (IFAC) World Congress, 2007.
- Reviewer for the IEEE Conference on Automation Science and Engineering, 2007.
- Chair, session on the 'Teaching (All Areas of Business)' at the Hawaii International Conference on Business, 2007.
- Reviewer for the Hawaii International Conference on Business, 2007.
- Reviewer for chapter on 'Passive optical networks for Broadband Access' in The Handbook of Computer Networks; John Wiley & Sons, publisher; Bidgoli, H., Editor-in-Chief, 2006.
- Co-chair, session on the 'Applications of other disciplines in cybernetics/informatics and control systems' at the conference on Cybernetics and Information Technologies, Systems and Applications (CITSA), 2006.
- Reviewer for the Electrical, Electronics & Computer Technology (EECT) special interest division of the NAIT proposals/papers, 2006.
- Reviewer of an electronics pilot funding project proposal for the Louisiana Board of Regents, 2005.
- Reviewer for the IEEE Conference on Control Applications (CCA), 2005.
- Reviewer for the Journal of Engineering Technology (JET), 2005.
- Reviewer for the American Society of Engineering Education (ASEE), annual conference, 2005-07, 2009
- Reviewer for the ASEE, Conference for Industry and Education Collaboration (CIEC), 2005
- Chairperson, substituting for session on Intelligence in Manufacturing, Conference on Intelligent Processing and Manufacturing of Materials (IPMM 2005), Monterey, CA, 2005.
- Reviewer for the World Multiconference on Systemics, Cybernetics and Informatics (WMSCI), 2005-08.
- Reviewed and modified questions on the Networking Concepts and the Network Design assessments, for the business leaders of America (FBLA) program state and national competitions, 2005.
- Kentucky Technology Student Association (TSA) curricular resource committee and conference management team member, coordinating the state competition for computer applications, 2007.
- Assisted judging of the Kentucky TSA state competition for computer applications, 2003-06; and for computer systems troubleshooting, Louisville, KY, 2003-04.
- Judge for Manufacturing Prototyping and Robotics (radio controlled) TSA regional competitions held in the department of Technology at ECU, 2006.
- Assisted overall event coordination of the TSA regional competition, and helped coordinate the Extemporaneous and Prepared Speech event, 2005.
- Administered and graded the National Occupational Competency Testing Institute (NOCTI) performance test on Computer Technology for experienced workers, Richmond, KY, 2005.
- Volunteered at the TSA regional competition held in the department of Technology at ECU, for computer construction and applications, 2003-04.
- Judged the Computer applications section of the FBLA program state competitions, 2003-07.
- Reviewer for the Expo and technical conference of the Instrumentation, Systems and Automation society (ISA), 03, 2005.
- Reviewer for the IEEE, Control and Decision Conference (CDC), 2003-04, 2006, 2008-09
- Reviewer for the IEEE, American Control Conference (ACC), 2003-04, 2006-07.
- Reviewer for the Asian Journal of Control, 2003.

Computer Skills

- **Programming:** Java, Perl, C, Visual Basic, Pbasic, Javascript, Tcl, LaTeX, MySQL, IT Guru, Fortran, Siman, Assembly
- **Applications:** Microsoft Office package, Multisim, Autocad LT, Matlab, Maple, PSpice, Arena, OPNET

Grants & Scholarships

- \$950, educators grant for attending the 22nd annual Automatic Identification & Data Capture (AIDC) conference, University of Ohio, Athens, July 2008.
- \$ 1,500, educational objective assessment grant for "Validating the Computer electronic networking BS degree exit exam, based on student performance on the professional computer technology association Network+ certification". With J. Kilgore and R. Richardson. Eastern Kentucky University, Richmond, KY 2007-08.
- \$ 400, mini-grant awarded by the University Division National Association of Industrial Technology, for travel and accommodation reimbursement related to presentation of talk on online learning. With R. Richardson. NAIT Conference, Louisville, October 2004.
- Research challenge trust fund (RCTF) fellowship recipient, 2001-02, University of Kentucky.
- Student travel grants for presenting posters and papers at the American Control Conference, Arlington, Virginia, June 2001, and Anchorage, Alaska, May 2002; and the NSF Workshop on Logic Control of Manufacturing Systems, University of Michigan, Ann Arbor, MI, June 2000.
- Full tuition and Teaching/Research Assistant scholarships through graduate studies at the University of Kentucky, Lexington, KY.

Miscellaneous

- Authored the Academic Program Review document for the Computer Electronic Networking BS degree, in consultation with the computer electronics curriculum committee, at ECU, 2007.
- Jointly coordinating articulation agreement of BS program in computer networking at ECU, with AAS programs at Bluegrass Community and Technical College (BCTC), Lexington, KY, 2005-07.
- Academic Advisor for approximately 40 majors in Computer Electronic Networking (CEN) and Computer Electronics Technology (CET) majors, in the department of Technology at ECU, 2003-07.
- Faculty sponsor for the College of Business & Technology (CB&T) capstone presentations by EET majors:
 - Chris Lang titled 'Personal interactive computer network technology based support', 2007
 - Anthony Campbell and Eric Poynter, titled 'Home automation: web based control', 2006
- Development and maintenance of online academic advising website in Blackboard providing students access to information regarding coursework planning, transfer, career, and discussion forums.
- Field trips with students to:
 - Dale Power station (EET452, Electrical power & drives), Winchester, KY, Apr., 2007-08
 - Hummel Planetarium (EET399/499, Capstone Project in CEN/CET), Richmond, KY, Mar., 2006-09
 - EW Brown power station (EET 352, Electrical Power Technology), Harrodsburg, KY, Sept. 2004
 - Thacker-Grigsby Communications (EET440, Fiberoptic Communication), Hindman, KY, Oct. 2004, Apr. 2009
 - Adelphia (EET440), Richmond, KY, Nov. 2003, Nov., Dec. 2004, Apr., Nov. 2005-06.
- ECU honors program faculty mentor for:
 - Keith Stephens (co-advised by J. Kilgore), Lowe, P., 2007
 - Brian Gilliam (co-advised by J. Kilgore), 2008
- Faculty marshal, College of Business & Technology, ECU, commencement, summer 2004.
- Participated in commencement ceremonies at ECU, 2003-2008.
- Participated in student 'Spotlight day' recruitment activities at ECU, 2003-08.
- Design of electronic circuitry for a patent pending gadget which will be used for teaching fishing, 2003.
- Recommended books for purchase by ECU libraries related to telecommunications, networking, electronic and computer technology, 2003-04, 2006-08.
- Substituted classes for faculty members in the area of computer applications, microcomputers, microprocessors, programmable logic controllers, networking, digital electronics, 2003-08.
- Proctor for examination of distance education course through the Medical College of Wisconsin, 2002.
- Tutored the Mathematics and Science reasoning sections of the ACT, at ECU, 2003.
- Member of National Cadet Core (NCC) band unit, Birla Institute of Technology (BIT), 1986-88.
- Senior editor of undergraduate magazine at BIT, 1990.

Volunteer

- At the Madison County Public Library, Richmond. Duties include filing of books, work desk operations, updating patron information in databases, 2003 onwards.
- Supervised interactive electricity/electronics activities for Cub Scout groups, ECU, 2007.
- At Movable Feast, responsible for maintaining staff records in Access, Lexington, KY, 2000.
- At Friends Book Celler, Lexington Public Library, assisted in sorting, pricing, filing books, Lexington, KY, 1998-99.
- Grader for Kentucky's Mathcounts program, Lexington, KY 2001.

