

John R. Wright, Jr., Ph.D., CSTM, CLSSGB, CSCE, F.ATMAE

Department of Applied Engineering, Safety & Technology

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ACADEMIC & LEADERSHIP PROFILE:

Academic leader, Fulbright Scholar, and engineering educator with more than 25 years of experience spanning higher education, academic program development, interdisciplinary research, engineering practice in industry, and national professional leadership. Record of developing and transforming academic programs, leading curriculum and continuous-improvement initiatives, advising senior academic leaders, building industry and external partnerships, stewarding resources, and guiding organizations through change. Career experience across traditional and applied engineering environments provides a broad perspective on connecting rigorous technical foundations with experiential learning, interdisciplinary innovation, and evolving workforce and societal needs.

SELECTED ACADEMIC & EXECUTIVE LEADERSHIP ACCOMPLISHMENTS:

- **Academic strategy & program development:** Developed and led multiple academic programs, including founding an interdisciplinary Automation & Intelligent Robotics Engineering Technology degree and leading the development and launch of a new Applied Engineering program at the University of Louisville.
- **Executive leadership & organizational transformation:** Led strategic planning and reinvention of a 1,000+ member national professional association, including service as Chair of the Board of Directors, culminating in the transition from NAIT to ATMAE.
- **Faculty leadership & shared governance:** Extensive experience in faculty evaluation, mentoring, promotion, tenure, reappointment, searches, curriculum, budget, and collaborative academic decision-making within a unionized shared-governance environment.
- **Resource development & stewardship:** Secured or helped secure more than \$2.6 million in grants, equipment, software, and industry support; chaired departmental budget processes and participated in national association financial stewardship.
- **Accreditation & continuous improvement:** Led recurring accreditation, assessment, curriculum review, and continuous-improvement efforts, including service on the Standards and Accreditation Committee of the ATMAE Board of Accreditation.
- **Industry engagement & engineering practice:** Built industry and advisory-board partnerships supporting curriculum, laboratories, student opportunities, and program innovation, complemented by extensive engineering practice and leadership in industry.
- **Student success & experiential education:** Led nationally successful student robotics programs and extensive experiential learning, including internships, applied projects, and student research.
- **Research & international engagement:** Led interdisciplinary researchers on a DARPA-funded UPENN robotics project; has sustained scholarship and applied student research in autonomous mobile robotics, distributed intelligence, and control architectures through publications, presentations, and international robotics competition; and was selected as a U.S. Fulbright Faculty Scholar for graduate engineering teaching and academic development in Finland.

PROFESSIONAL EXPERIENCE:

Academic Experience

Millersville University of Pennsylvania, College of Science & Technology, Department of Applied Engineering, Safety & Technology, Millersville, PA

- Professor (Aug 2009–Present)
- Associate Professor (Aug 2004–Aug 2009)
- Assistant Professor (Aug 1999–Aug 2004)
- Applied Engineering & Technology Management (AETM) Program Coordinator (May 2023–Present)
- Nanofabrication Manufacturing Technology (NFMT) Program Coordinator (Sept 2019–2023)
- Automation & Intelligent Robotics Engineering Technology (ARET) Founding Program Coordinator (Oct 2015–Jan 2022)
- Industrial Technology (ITEC) Program Coordinator (June 2008–Aug 2010)

U.S. Fulbright Faculty Scholar, Fulbright Finland Foundation. Turku University of Applied Sciences, Master's Program in Mechanical Engineering, Turku, Finland

- Graduate Mechanical Engineering teaching and applied research in automation and robotics, including curriculum development, mobile robotics instruction, mentoring of an autonomous research platform, and U.S.-Finland academic collaboration (Jan–Jun 2027)

University of Louisville, J.B. Speed School of Engineering, Department of Engineering Fundamentals, Louisville, KY

- Adjunct Lecturer (Aug 2026–), Instructor, Quality & Lean Systems (AE 313, online); Co-Instructor, Digital Electronics (AE 224)
- Associate Professor & Interim Program Lead, Robotics & Automation Systems Applied Engineering (Nov 2024–Jun 2026, .40 FTE)
- Applied Engineering Consultant (Nov 2023–Oct 2024)

University of Pennsylvania (UPENN), School of Engineering and Applied Science, Philadelphia, PA

- Postdoctoral Research Associate (Jan 1999–Sept 1999)

Iowa State University, Department of Industrial Education and Technology, Ames, IA

- Teaching Assistant (Jan 1996–Dec 1998)

Central Connecticut State University, *School of Technology, New Britain, CT*

- Researcher (Dec 1993–June 1994)
- Graduate Assistant (Sept 1993–Dec 1993)

Engineering Practice in Industry

Independent Consultant, Lancaster, PA

Selected Projects:

Rixan Associates, Inc. (January-February 2010), Dayton, Ohio
Chester County Intermediate Unit (November 2007), Downingtown, Pennsylvania
Robotic Industries Association (October 2006-February 2007), Ann Arbor, Michigan
Mechanical Plus, Inc. (June-July 2003), Lancaster, Pennsylvania
Safe Harbor Water Power Corporation (July 2002), Conestoga, Pennsylvania
Iowa State University, Department of Industrial Technology & Education (July & August 2001), Ames, Iowa
Delevan, Incorporated (September-December 1997), Des Moines, Iowa

Multi-Dimensional Integration, Shrewsbury, PA

- Senior Controls Engineer (July 2016–2023, Part-time)
- Controls Engineer/Programmer (May 2012–July 2016, Part-time)

Provided industrial controls engineering, PLC programming, systems integration, and commissioning for large-scale automation and distribution systems serving clients including Amazon, Procter & Gamble, Americold, Lowe's, Walgreens, Regeneron, and other major organizations.

Selected Projects:

Procter & Gamble Company/Dematic Greater Chicago Fulfillment Center Commissioning (Pallet Destackers & Conveyors) Project (2023), Morris, Illinois.
Americold/Dematic Commissioning (ISS Merge) Project (2022), Mountville, Pennsylvania
Amazon/Dematic FWA4 Fulfillment Center Commissioning (FMH Maxxreach Trailer Loaders/Restuffits / Fluid Load Area) Project (2022), Fort Wayne, Indiana
Amazon/Dematic SAN3 Fulfillment Center Commissioning (Shipping Sorter, Receiving Decant Workstations & RSP) Project (2021), San Diego, California
Procter & Gamble Company (Swiffer S1 Wax Process) Programming Development Project (2020), Martinsburg, West Virginia
Amazon/Dematic MQJ1 Distribution Center Commissioning (Package Identification (PID) Lines) Project (2020), Indianapolis, Indiana
Amazon/Dematic STL8 Fulfillment Center Commissioning (Shipping Sorter & Receiving Merge Workstations) Project (2019), St. Louis, Missouri
Amazon/Dematic SLC1 Fulfillment Center Commissioning (ARSAWs and ARSAW Trunk Lines, SLAMs & Shipping Sorter) Project (2018), Salt Lake City, Utah
Family Dollar/Dematic Distribution Center PLC-5 to ControlLogix Upgrades Project (2018), Front Royal, Virginia
Amazon/Dematic BDL2 Fulfillment Center Commissioning (ARSAWs) Project (2017), Windsor, Connecticut
Lowes/Dematic Distribution Center PLC-5 to ControlLogix Upgrades Project (2016), Pottsville, Pennsylvania
Houghton Mifflin/Dematic Distribution Center PLC-5 to ControlLogix Upgrades Project (2016), Indianapolis, Indiana
Amazon/Dematic ABE-8 Distribution Center Pre-Commissioning Project (2016), South Florence, New Jersey
Walgreens/Dematic PLC-5 to ControlLogix Upgrades Project (2016), Perrysburg, Ohio

Walgreens/Dematic PLC-5 to ControlLogix Upgrades Project (2016), Mt. Vernon, Illinois
abec/Regeneron Bio-pharmaceutical Programming Project (2015), Bethlehem, Pennsylvania
Amazon/Dematic EWR4 Fulfillment Center Commissioning (AFE Re-Bin Lanes) Project (2014),
Robbinsville, New Jersey
Harrisburg Water Authority SCADA Programming Project (2012) - Programmer, Harrisburg,
Pennsylvania

TENERGY L.L.C., New Britain, CT

- Commercial Product Development Manager & Cofounder (June 1995–Oct 1995)
- Technical Manager & Cofounder (June 1994–June 1995)

Cofounded technology venture developing and commercializing patented electric-vehicle drivetrain technologies; personally awarded a U.S. patent for an electric-drive assembly.

Duracell, Inc., Bethel, CT

- Quality Control Technician/Internship, Statistical Process Control (SPC) Department (Jan 1993–Sept 1993)

Association Leadership Experience

The Association of Technology, Management, and Applied Engineering (ATMAE)

Chairman, Board of Directors (2007–2008)

Immediate Past Chairman and Advisor, Board of Directors (2008–2009)

Vice-Chairman, Board of Directors (2006–2007)

Board of Directors Member (2002–2004)

ATMAE Senior Fellow (2017–Present)

Standards and Accreditation Committee Member, Board of Accreditation (2017–2020)

Certification Board Member / Certified Controls Engineer Exam Development Commission (2014–2016)

Editor-in-Chief & Editorial Panel Member, Journal of Industrial Technology (2005–2007)

President, Electricity, Electronics & Computer Technology (EECT) Division (2006–2008)

President Elect, Electricity, Electronics & Computer Technology (EECT) Division (2004–2006)

Past President, Electricity, Electronics & Computer Technology (EECT) Division (2008–2009)

President, Student Division (2002–2003)

President Elect, Student Division (2001–2002)

Past President, Student Division (2003–2004)

American Society for Engineering Education (ASEE)

Executive Board Member, Engineering Technology Division (2017–2018)

Assistant Vice-Chair for ASEE Annual Programs, Engineering Technology Division (2017–2018)

EDUCATION:

Ph.D., Industrial Education and Technology, Iowa State University, Ames, Iowa, 1998

Dissertation: Natural Language and Mixed Modality Task Presentations in the Human-computer Interaction
Using Programmable Logic Controllers

M.S., Industrial Management, Central Connecticut State University, New Britain, Connecticut, 1996

B.S.I.T., Industrial Technology (Electrical Systems Specialization), Central Connecticut State University,
New Britain, Connecticut, 1993

PROFESSIONAL CERTIFICATIONS:

2020–Present, Certified Senior Controls Engineer (CSCE) – Registration #10086
2019–Present, Certified Lean Six Sigma Green Belt (CLSSGB) – Registration #9625
1998–Present, Certified Senior Technology Manager (CSTM) – Registration #1382
The Association of Technology, Management, and Applied Engineering (ATMAE), North Huntingdon, Pennsylvania
2008–2013, Associate Engineering Manager (AEM)
American Society for Engineering Management (ASEM). Rolla, Missouri

HONORS & AWARDS:

2026–2027 U.S. Fulbright Faculty Scholar Award, Turku University of Applied Sciences, Finland (Jan–Jun 2027), graduate Mechanical Engineering teaching and applied research in automation and robotics.
2019 Distinguished Service Citation, Epsilon Pi Tau International Honor Society for Professions in Technology
2017 Honorary Alumni Award, Millersville University of Pennsylvania
2017 ATMAE Senior Fellow, The Association of Technology, Management, and Applied Engineering
2013 Charles W. Keith Award, The Association of Technology, Management, and Applied Engineering (ATMAE’s highest honor; one of only 12 recipients in the organization’s 60-year history).
2009 Laureate Citation, Epsilon Pi Tau International Honor Society for Professions in Technology
2008 Service Award for Exemplary Contributions to NAIT as Chairman of the Board of Directors, National Association of Industrial Technology
2008 Service Award for Exemplary Contributions to NAIT as President of the Electricity, Electronics, and Computer Technology (EECT) Division, National Association of Industrial Technology
2003 Outstanding Industrial Technology Professor of the Year (Region 1), National Association of Industrial Technology
2003 Service Award for Exemplary Contributions to NAIT as President of the Student Division, National Association of Industrial Technology

PUBLICATIONS & SCHOLARLY WORKS:

- [25] Haughery, J. R., Kaskel, J. M., **Wright, J. R., Jr.**, Troop, I. P., & Wogari, E. (In-progress). Distributed intelligence and centralized control methodology in self-driving low-speed robotics.
- [24] **Wright, J. R., Jr.** (2025). *Applied engineering vs. traditional engineering: understanding the difference* [White paper]. J.B. Speed School of Engineering, University of Louisville.
- [23] Rockaway, T. D., **Wright, J. R., Jr.**, & Williams, A. (2024). *ATMAE vs. ABET accreditation brief for new automation program* [White paper]. J.B. Speed School of Engineering, University of Louisville.
- [22] Weaver, Z. A., **Wright, J. R., Jr.**, Troop, I. P., & Haughery, J. R. (2023). *TiM\$10K Challenge AppSpace white paper: Millersville University* [White paper]. SICK, Inc.
- [21] **Wright, J. R., Jr.** (2022). *School of Engineering Practice (SoEP) proposal v2* [White paper]. Department of Applied Engineering, Safety & Technology, Millersville University of Pennsylvania.
- [20] **Wright, J. R., Jr.**, Buchanan, W. W., & Wright, J. R. (2020). Is the engineering technology profession ready for a name change to applied engineering? *Journal of Technology, Management & Applied Engineering*, 36(1).

- [19] **Wright, J. R., Jr.** (2019). *Classification of Instructional Programs (CIP) code* [White paper]. U.S. Department of Education & Association of Technology, Management & Applied Engineering.
- [18] **Wright, J. R., Jr.**, Ginter, E. S., David, B. G., Kilbourne, B. J., & Wells, J. R. (2019). Intermediate programming methodologies for manipulating modern humanoid robots. *Universal Journal of Electrical and Electronic Engineering*, 6(4).
- [17] **Wright, J. R., Jr.** (2017, January). *Using the Venn as a road map* [White paper]. Association of Technology, Management & Applied Engineering.
- [16] **Wright, J. R., Jr.**, Atharifar, H., & Atwater, M. (2014, January). A meta-analysis of the skills gap dilemma in today's engineering professions. *Association of Technology, Management & Applied Engineering* [White paper].
- [15] Kuperavage, J. M., & **Wright, J. R., Jr.** (2007). Non-holonomic robotic control using the BasicX-24p microcontroller. *International Journal of Modern Engineering*, 7(2), 1–14.
- [14] Kuperavage, J. M., & **Wright, J. R., Jr.** (2006). Non-holonomic robotic control using the BasicX-24p microcontroller. In *Proceedings of the 9th Annual IJME/INTERTECH Joint International Conference on Engineering and Technology: Research – Education – Entrepreneurship*. Union, NJ.
- [13] **Wright, J. R., Jr.** (2006). Experimental analysis of a battery thermal management system: Implications and applications for industrial and commercial products. *Journal of Industrial Technology*, 22(2), 1–7.
- [12] **Wright, J. R., Jr.**, & Harris, S. (2006). Hardware for intelligence – Partnering not just a buzzword. *IT Insider*, 8(2), 4. (Excerpted partial reprint of “The Value of Partnering with Academia.”)
- [11] **Wright, J. R., Jr.**, & Harris, S. (2006). The value of partnering with academia. *Journal of Industrial Technology*, 22(3), 1–3.
- [10] **Wright, J. R., Jr.**, & Harris, S. (2006, June). Automate or evaporate? A public/private partnership model/case study designed to help U.S. manufacturers and educational institutions meet this critical challenge. *Robotics Online*.
- [9] **Wright, J. R., Jr.**, & Vahradian, H. M. (2006). Historical changes made to the student division: An extreme makeover (2001–2004). *Journal of Industrial Technology*, 22(1), 1–5.
- [8] **Wright, J. R., Jr.** (2005). *SWOT analysis of COSIMIR® software* [White paper]. Rixan Associates, Inc. & Millersville University of Pennsylvania.
- [7] Geissler, J., Knott, P. J., Vazquez, M. R., & **Wright, J. R., Jr.** (2004). Virtual reality robotic programming software in the technology classroom. *The Technology Teacher*, 63(6), 6–8.
- [6] **Wright, J. R., Jr.**, & Sgro, S. D. (2002). Building and controlling your PLC controlled robot from the workbench. *The Technology Teacher*, 61(8), 7–10.
- [5] **Wright, J. R., Jr.**, Jung, S., Steplight, S., Wright, J. R., Sr., & Daas, A. (2000). Omnidirectional visual control for mobile robots. *The Technology Teacher*, 59(5), 32–38.
- [4] **Wright, J. R., Jr.** (1999). The debate over which PLC programming language is the state-of-the-art? *Journal of Industrial Technology*, 15(4), 2–5.
- [3] Angelopoulou, E., & **Wright, J. R., Jr.** (1999). *Laser ranging technology* [White paper]. Defense Advanced Research Projects Agency (DARPA), University of Pennsylvania.
- [2] **Wright, J. R., Jr.** (1998). Overcoming resistance to change through participative staff development. *Journal of Industrial Technology*, 14(1), 2–5.
- [1] **Wright, J. R., Jr.** (1996). *Swing arm supported electric drive assembly for powering cycles* (U.S. Patent No. 5,524,726). TENERGY L.L.C.

NATIONAL PRESENTATIONS:

- [47] Wright, B. R., **Wright, J. R., Jr.**, & Haughery, J. R. (2025). Bridging theory and practice: A low-cost robotics contest for engineering education. Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Memphis, Tennessee.
- [46] Wright, B. R., Nguyen, D., Brunner, C., Haughery, J. R., & **Wright, J. R., Jr.** (2023). Applying modular design in mobile robotics research and development. Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Atlanta, Georgia.
- [45] Greineder, J. M., Haughery, J. R., Troop, I. P., & **Wright, J. R., Jr.** (2023). Developing a stereoscopic vision sensor (S-ViS) array for mobile robotics. Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Atlanta, Georgia.
- [44] Weaver, Z. A., Troop, I. P., Haughery, J. R., & **Wright, J. R., Jr.** (2023). Multiple LiDAR systems integration for distributed control, low-speed, self-driving robots. Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Atlanta, Georgia. *Best Poster Award, 2023 ATMAE Conference.*
- [43] Weaver, Z. A., Troop, I. P., Haughery, J. R., & **Wright, J. R., Jr.** (2023). The benefits of machine vision for self-driving robots. Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Atlanta, Georgia.
- [42] Martin, R. C., **Wright, J. R., Jr.**, & Smith, I. M. (2021). Design, development, and implementation of a complex stacking/unstacking industrial robotic application. Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Orlando, Florida.
- [41] Haughery, J. R., & **Wright, J. R., Jr.** (2020). Ideation, development, and implementation of the ATMAE Certified Controls Engineer examination. 2020 Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Online Conference.
- [40] **Wright, J. R., Jr.**, Gehron, D. A., Kury, N. J., & Spisak, A. C. (2018). Incorporating machine vision into an industrial robotics course. 2018 Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Kansas City, Missouri.
- [39] Gehron, D. A., Kury, N. J., Spisak, A. C., & **Wright, J. R., Jr.** (2018). Active, real-time object tracking using Cognex machine vision and Mitsubishi industrial robots. 2018 Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Kansas City, Missouri.
- [38] Wagner, K. L., & **Wright, J. R., Jr.** (2017). Multi-layer behavioral motion for complex robotic control with >10 DoF. 2017 Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Cincinnati, Ohio.
- [37] Bozzelli, N. A., Wiles, M. P., **Wright, J. R., Jr.**, Kilgore, Q. D., & Wagner, K. L. (2017). Enacting active compliant visual robotic control: setup, configuration, and applications. 2017 Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Cincinnati, Ohio.
- [36] Wiles, M. P., Bozzelli, N. A., **Wright, J. R., Jr.**, Kilgore, Q. D., & Wagner, K. L. (2017). Using Cognex vision for part id and analysis: tutorials, labs, and YouTube. 2017 Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Cincinnati, Ohio.
- [35] **Wright, J. R., Jr.** (2015). Practical loop tuning – How to tune a PID loop! 2015 Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Pittsburgh, Pennsylvania.

- [34] **Wright, J. R., Jr.** (2015). EECT certification brief [Invited, EECT Membership Meeting]. 2015 Association of Technology, Management, and Applied Engineering Conference, Pittsburgh, Pennsylvania.
- [33] Wells, J. R., Kilbourne, B. J., & **Wright, J. R., Jr.** (2014). Advanced dynamic motion control and object tracking for humanoid robotics. 2014 Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), St. Louis, Missouri.
- [32] **Wright, J. R., Jr.** (2014). EECT certification brief [Invited, EECT Membership Meeting]. 2014 Association of Technology, Management, and Applied Engineering Conference, St. Louis, Missouri.
- [31] Ramos, G. G., & **Wright, J. R., Jr.** (2013). Programming the NAO robotic humanoid with object-oriented programming methodology. 2013 Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), New Orleans, Louisiana.
- [30] **Wright, J. R., Jr.** (2010). Assessing knowledge of electronics students via the incorporation of manipulative and design methods of examination. 2010 Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Panama City, Florida.
- [29] **Wright, J. R., Jr.**, Jordan, J., & Oliver, D. (2010). Firefighting robots for the classroom: An exciting application for your microcontroller-based electronics curricula. 2010 Association of Technology, Management, and Applied Engineering Conference Proceedings (Abstract), Panama City, Florida.
- [28] Bostic, L., Sarapin, M., Nwoke, B., Uwakweh, B., Tetteh, E. [Moderator], Travers, K., & **Wright, J. R., Jr.** (2010). Panel discussion and forum: strategies to negotiate the tenure & promotion process [Invited Panelist – Round Table Discussion]. 2010 Association of Technology, Management, and Applied Engineering Conference, Panama City, Florida.
- [27] Buck, J., Laux, C., Sgro, S. D. [Moderator], & **Wright, J. R., Jr.** (2010). ATMAE student chapter roundtable / chapter advisors meeting [Invited Panelist – Round Table Discussion]. 2010 Association of Technology, Management, and Applied Engineering Conference, Panama City, Florida.
- [26] **Wright, J. R., Jr.**, Mosley, I. T., Sr., Martini, J., & Coscarelli, R. (2009). ATMAE moves forward! [Keynote Luncheon Address]. 2009 Association of Technology, Management, and Applied Engineering Conference, Louisville, Kentucky.
- [25] **Wright, J. R., Jr.**, Travers, K. A., Mosley, I. T., Sr., & Slocumb, C. A. (2008). NAIT strategic plan – embrace the future! [Keynote Luncheon Address]. 2008 National Association of Industrial Technology Conference, Nashville, Tennessee.
- [24] **Wright, J. R., Jr.**, & Weinsier, P. D. (2008). EECT division membership meeting address [One-hour Annual Division Report]. 2008 National Association of Industrial Technology Conference, Nashville, Tennessee.
- [23] **Wright, J. R., Jr.** (2007). EECT division membership meeting address [One-hour Annual Division Report]. 2007 National Association of Industrial Technology Conference, Panama City, Florida.
- [22] Patrick, C., & **Wright, J. R., Jr.** (2007). Journal of Industrial Technology reviewer training workshop [Invited National Workshop]. 2007 National Association of Industrial Technology Conference, Panama City, Florida.
- [21] Travers, K. A., & **Wright, J. R., Jr.** (2007). NAIT's past, present and future [Keynote Luncheon Address]. 2007 National Association of Industrial Technology Conference, Panama City, Florida.
- [20] **Wright, J. R., Jr.**, & Kuperavage, J. M. (2006). Let's all migrate to industry grade! An introduction to the BasicX-24p microcontroller and the BasicX language. 2006 National Association of Industrial Technology Conference Proceedings (Abstract), Cleveland, Ohio.
- [19] **Wright, J. R., Jr.** (2006). EECT division membership meeting address [One-hour Annual Division Report]. 2006 National Association of Industrial Technology Conference, Cleveland, Ohio.

- [18] Patrick, C., & **Wright, J. R., Jr.** (2006). JIT reviewer forum and primer [A two-hour forum & primer]. 2006 National Association of Industrial Technology Conference, Cleveland, Ohio.
- [17] Hearn, D. R., & **Wright, J. R., Jr.** (2005). What you need to know: Regulations and guidelines for deploying industrial robotics in the workplace. 2005 National Association of Industrial Technology Conference Proceedings (Abstract), St. Louis, Missouri.
- [16] Kuperavage, J. M., Haughery, J. R., & **Wright, J. R., Jr.** (2005). Semi-autonomous control of mobile robotic field agents: The algorithm, interface, and implementation results. 2005 National Association of Industrial Technology Conference Proceedings (Abstract), St. Louis, Missouri.
- [15] **Wright, J. R., Jr.**, Kuperavage, J. M., & Smith, J. T. (2004). Jazzing up your microprocessor/microcontroller course through the infusion of mobile robotic agents utilizing Basic Stamp II microcontrollers for autonomous navigation. 2004 National Association of Industrial Technology Conference Proceedings (Abstract), Louisville, Kentucky.
- [14] Miley, J. E., & **Wright, J. R., Jr.** (2003). Programming and interfacing analog I/O devices for the micrologix 1200 PLC. 2003 National Association of Industrial Technology Conference Proceedings (Abstract), Nashville, Tennessee.
- [13] Vazquez, M. R., Tarnowski, B. J., & **Wright, J. R., Jr.** (2002). The implementation of tele-operated robotics in the IT classroom and competition. 2002 National Association of Industrial Technology Conference Proceedings (Abstract), Panama City, Florida.
- [12] **Wright, J. R., Jr.**, & Sgro, S. D. (2001). Is relay ladder logic obsolete? State Logic reduces novice programming times by 70%. 2001 National Association of Industrial Technology Conference Proceedings (Abstract), Dearborn, Michigan.
- [11] **Wright, J. R., Jr.** (2001). PLC BOTS: Hallway survival application for the automation/robotics classroom. 2001 National Association of Industrial Technology Conference Proceedings (Abstract), Dearborn, Michigan.
- [10] **Wright, J. R., Jr.**, & Smith, E. W. (2001). Increasing the navigation capability of your mobile robot with active sensing devices. 2001 National Association of Industrial Technology Conference Proceedings (Abstract), Dearborn, Michigan.
- [9] Vazquez, M. R., & **Wright, J. R., Jr.** (2001). Incorporating VR programming of industrial robotics into your ITEC curriculum. 2001 National Association of Industrial Technology Conference Proceedings (Abstract), Dearborn, Michigan.
- [8] **Wright, J. R., Jr.**, & Sgro, S. D. (2000). Double RF controlled PLC robots: Taking the control off-board. 2000 National Association of Industrial Technology Conference Proceedings (Abstract), Pittsburgh, Pennsylvania.
- [7] Sgro, S. D., & **Wright, J. R., Jr.** (2000). The nuts and bolts of organizing and developing a national solar/electric race team. 2000 National Association of Industrial Technology Conference Proceedings (Abstract), Pittsburgh, Pennsylvania.
- [6] Wright, J. R., & **Wright, J. R., Jr.** (2000). Envirocycle: An innovative alternative energy vehicle testbed. 2000 International Technology Education Association Conference Proceedings [Special Session, Council on Technology Teacher Education (Abstract), Salt Lake City, Utah].
- [5] **Wright, J. R., Jr.**, & Marshall, J. A. (1999). PLC controlled robots for the Industrial Technology classroom. 1999 National Association of Industrial Technology Conference Proceedings (Abstract), Panama City, Florida.
- [4] **Wright, J. R., Jr.**, & Wisner, D. G. (1998). Piggybacking PLCs on top of existing robotic control systems. National Association of Industrial Technology Conference Proceedings (Abstract), Indianapolis, Indiana.

- [3] **Wright, J. R., Jr.**, Wisner, D. G., & Smith, R. A. (1998). State logic: An alternative PLC programming language. National Association of Industrial Technology Conference Proceedings (Abstract), Indianapolis, Indiana.
- [2] Bradshaw, L. L., **Wright, J. R., Jr.**, Strong, S. D., & Huang, H. (1998). Networking to prepare collaborative publication manuscripts. National Association of Industrial Technology Conference Proceedings (Abstract), Indianapolis, Indiana.
- [1] **Wright, J. R., Jr.** (1992). How to implement a solar/electric vehicle program in your school of technology. National Association of Industrial Technology Conference Proceedings (Abstract), Fort Worth, Texas.

REGIONAL/LOCAL PRESENTATIONS:

- [30] Haughery, J. R., **Wright, J. R., Jr.** (2025). Workforce pipelines in smart manufacturing: models and impacts. [Invited Local Presentation]. Smart Manufacturing Roadshow. Phoenix Contact, Middletown, Pennsylvania.
- [29] **Wright, J. R., Jr.**, Haughery, J. R., Troop, I. P., Maschke, E. J. & Wright, B. R. (2022). Developing an award winning autonomous self-driving robot at Millersville University. [Invited Local Presentation]. APSCURF Fall 2022 Meeting. Millersville University, Millersville, Pennsylvania.
- [28] **Wright, J. R., Jr.** (2019). *Millersville University and robotics - preparing our future engineers* [Invited Local Presentation]. Willow Valley Computer Club, Willow Valley Retirement Community Cultural Center. Willow Street, Pennsylvania.
- [27] Vazquez, D. M, Vipperman, J. C. & **Wright, J. R., Jr.** (2018). *Autonomous vehicle design and development* [Invited Local Presentation/Demonstration (Six sessions, 20 min each)]. Family Science Night. Wheatland Middle School, Lancaster, Pennsylvania.
- [26] **Wright, J. R., Jr.** & Wagner, K. L. (2017). *Come meet some humanoid robots that read books* [Invited Local Presentation/Demonstration (Four sessions, 30 min each)]. Milanof-Schock Public Library Summer Reading Program, Mount Joy, Pennsylvania.
- [25] Wagner, K. L. & **Wright, J. R., Jr.** (2017). *Layered motion techniques for the NAO robot* [Invited Local Presentation/Demonstration (Five sessions, 20 min each)]. Family Science Night. Wheatland Middle School, Lancaster, Pennsylvania.
- [24] **Wright, J. R., Jr.** (2016). *The professor career (Honors/International Baccalaureate Small Learning Community Example)* [Invited Local Presentation/Demonstration (Seven sessions, 20 min each – 175 total students)]. Lincoln Middle School Career Day. Lincoln Middle School, Lancaster, Pennsylvania.
- [23] **Wright, J. R., Jr.** (2016). *Programming a humanoid robot with object-oriented software* [Invited Local Presentation/Demonstration (Four sessions, 25 min each)]. Family Science Night. Wheatland Middle School, Lancaster, Pennsylvania.
- [22] **Wright, J. R., Jr.** & Ramos, G. G., (2014). *An introduction to robotics* [Invited Local Presentation/Demonstration, 90 min session, 25 students]. Project Forward Leap, Millersville University, Millersville, Pennsylvania.
- [21] **Wright, J. R., Jr.**, Wells, J. R., & Kilbourne, B. J. (2014). *Advanced dynamic motion control of soccer playing robots* [Invited Local Presentation/Demonstration (Six sessions, 20 min each)]. Family Science Night. Wheatland Middle School, Lancaster, Pennsylvania.
- [20] Ramos, G. G. & **Wright, J. R., Jr.** (2014). *Programming humanoid robots* [Invited Local Presentation/Demonstration]. Rotary Club of Lancaster Northeast, Manheim, Pennsylvania.

- [19] **Wright, J. R., Jr.**, Ramos, G. G., (2013). *Humanoid robotics: object and facial recognition technology* [Invited Local Presentation/Demonstration (Four sessions, 30 min each)]. Family Science Night. Wheatland Middle School, Lancaster, Pennsylvania.
- [18] **Wright, J. R., Jr.**, Ramos, G. G., & Ginter, E. S. (2013). *Introduction to the NAO robot and how the study of electronics helps us develop cool robots* [Invited Local Presentation/Demonstration (Three sessions, 45 min each – total 52 4th grade students)]. Burrowes Elementary School, Lancaster, Pennsylvania.
- [17] **Wright, J. R., Jr.** & Ramos, G. G. (2013). *Come talk to a robot!* [Invited Local Presentation/Demonstration (Three sessions, 45 min each – total 67 K-6 grade students)]. Lancaster County Partners for Gifted Education Super Saturday Seminars. Franklin & Marshall University, Lancaster, Pennsylvania.
- [16] Litowitz, L. S., **Wright, J. R., Jr.**, Ramos, G. G., Schneider, G. P. & Thom, P. J. (2013). *Exploring robotics* [Invited Local Presentation/Demonstration (Two sessions, 2 hours each – total 30 9-12 grade students)]. Lancaster-Lebanon Intermediate Unit 13 Student Enrichment Seminar. Millersville University, Millersville, Pennsylvania.
- [15] **Wright, J. R., Jr.** (2011). *Robotics technology and semi-autonomous control systems – discussion on recent projects* [Local Invited Presentation]. Innovation Transfer Network (ITN) Engineering Forum, Millersville University, Millersville, Pennsylvania.
- [14] **Wright, J. R., Jr.** (2010). *Industrial Technology marketing /informational survey* [Local Presentation – Research Results for the 2009 Survey Initiated by the Industrial Technology Advisory Council]. The Industrial Technology Advisory Council, Millersville University of Pennsylvania, Millersville, Pennsylvania.
- [13] **Wright, J. R., Jr.**, Alexander, A. & The Lincoln Middle School Robotics Team (2009). *Line Reading Delivery Robots* [Invited Local Presentation/Demonstration (Four sessions, 45 min each – total 80 students)]. Burrowes Elementary Reading Day Celebration, Lancaster, Pennsylvania.
- [12] **Wright, J. R., Jr.** & Warner, A. J. (2008). *The new 3Rs: reading, writing and robotics* [Invited Local Presentation/Demonstration (Four sessions, one hour each – total 75 students)]. Burrowes Elementary Reading Day Celebration, Lancaster, Pennsylvania.
- [11] **Wright, J. R., Jr.** & ITEC 467 Students (2008). *The robots are coming!* [Three-hour Local Demonstration]. Stayer Hall, Millersville University, Millersville, Pennsylvania.
- [10] **Wright, J. R., Jr.**, Litowitz, L. S., Sickel, S. W., & Jenkins, J. W. (2007). *Robotic control elements for the technology education classroom* [Invited Local Workshop]. Chester County Intermediate Unit's County-Wide Inservice, Great Valley High School, Malvern, Pennsylvania.
- [9] **Wright, J. R., Jr.** (2006). *Elementary robotics: Why we need to read to succeed* [Invited Local Presentation (Three sessions, one hour each - total 50 students)]. Burrowes Elementary Reading Day Celebration, Lancaster, Pennsylvania.
- [8] **Wright, J. R., Jr.** (2005). *Robotics for classroom use* [Invited Statewide Workshop]. Governor's Institute for Technology Education, Millersville University of Pennsylvania, Millersville, Pennsylvania.
- [7] **Wright, J. R., Jr.** & Kuperavage, J. M. (2005). *Reading and robotics* [Invited Local Presentation/Demonstration (Three sessions, one hour each – total 50 students)]. Burrowes Elementary Reading Day Celebration, Lancaster, Pennsylvania.
- [6] **Wright, J. R., Jr.** (2005). *Extending the capability of advanced glass mat (AGM) lead-acid batteries for electric vehicles with a thermal management charging system* [Invited Local Presentation]. Scholarship Social, Millersville University, Millersville, Pennsylvania.

- [5] **Wright, J. R., Jr.** (2002). *Artificial intelligence and expert systems* [Invited Statewide 3-hour Workshop]. Collaborative for Excellence in Teacher Preparation Conference in Pennsylvania (CETP-PA), Millersville University of Pennsylvania, Millersville, Pennsylvania.
- [4] **Wright, J. R., Jr.** & Sgro, S. D. (2001). *Designing PLC driven mobile robots with double RF control* [Invited Local Presentation]. The Society of Manufacturing Engineers, Chapter 89, Millersville University of Pennsylvania, Millersville, Pennsylvania.
- [3] Ryan, E., **Wright, J. R., Jr.**, & Waring, T. (2001). *Getting started: What's really involved* [Invited Regional Presentation]. Energizing Schools 2001: Integrating the Standards. Northeast Sustainable Energy Association's Regional Conference, Philadelphia, Pennsylvania.
- [2] **Wright, J. R., Jr.** (2000). *Millersville's 1st national electrical motorcycle race entry and its development* [Invited Local Presentation]. The Society of Manufacturing Engineers, Chapter 89, Millersville University of Pennsylvania, Millersville, Pennsylvania.
- [1] Das, A., Jung, S. Steplight, S., Walker, D., & **Wright, J. R., Jr.** (1999). *A vision guided robot for urban terrain*. Poster session presented at the Center for Discrete Mathematics and Theoretical Computer Science's (DIMACS) Workshop on Large Scale Discrete Optimization in Robotics and Vision, Rutgers University, New Jersey.

EXTERNAL GRANTS & DONATIONS: (\$2.65M+)

\$1500.00	IGVC 3rd Place AutoNav Award (2026). MU Robotics Team, AEST. Millersville University of Pennsylvania.
\$25,580.00	Fulbright Faculty Scholar Award Grant (Jan-June 2027). <i>Developing an Automation & Robotics Applied Engineering Program at Turku University of Applied Sciences</i> , Turku University of Applied Sciences and the Fulbright Finland Foundation.
\$273,354.32	Gift-in-Kind (2025), PLCs, HMIs, Software, & Training. Mitsubishi Electric. Total Cost: \$334,970.00. Applied Engineering Program – J.B. Speed School of Engineering, University of Louisville.
\$2,000.00	2026 IGVC ATMAE Accreditation Sponsorship Grant (2025). MU Robotics Team. Co-recipient: Dr. John Haughery, AEST, Millersville University of Pennsylvania.
\$85,208.27	Gift-in-Kind (2025-2026), AC motors, variable frequency drives, HMIs, etc. SEW Eurodrive. Co-recipient: Dr. John Haughery, Applied Engineering Program – J.B. Speed School of Engineering, University of Louisville.
\$177,500.00	Gift-in-Kind (2025-2026), programmable logic controllers, relays, ethernet switches, terminal blocks, etc. Phoenix Contact USA. Co-recipient: Dr. John Haughery, Applied Engineering Program – J.B. Speed School of Engineering, University of Louisville.
\$141,000.00	Gift-in-Kind (2025-2026), programmable logic controllers, relays, ethernet switches, terminal blocks, etc. Phoenix Contact USA. Co-recipient: Dr. John Haughery, AEST, Millersville University of Pennsylvania.
\$2,000.00	IGVC 2nd Place AutoNav Award (2025). MU Robotics Team. Co-recipient: Dr. John Haughery, AEST. Millersville University of Pennsylvania.
\$994,280.00	Gift-in-Kind (2024), 100 Seats of industrial robot programming software licenses. ABB, Inc. Co-recipient: Dr. John Haughery, AEST, Millersville University of Pennsylvania.
\$20,000.00	2025 IGVC Phoenix Contact USA Product Sponsorship Grant (2024). MU Robotics Team. Co-recipient: Dr. John Haughery, AEST, Millersville University of Pennsylvania.
\$2,000.00	2025 IGVC ATMAE Accreditation Sponsorship Grant (2024). MU Robotics Team. Co-recipient: Dr. John Haughery, AEST, Millersville University of Pennsylvania.

\$2,000.00	IGVC 2nd Place AutoNav Award (2024). MU Robotics Team. Co-recipient: Dr. John Haughery, AEST. Millersville University of Pennsylvania.
\$4,000.00	Ambassador Grant (2024), TE Connectivity. Co-recipient: Dr. John Haughery, AEST, Millersville University of Pennsylvania.
\$46,468.64	Gift-in-Kind (2024), Industrial controls instrumentation, Phoenix Contact, USA. Co-recipient: Dr. John Haughery, AEST, Millersville University of Pennsylvania.
\$26,614.00	Gift-in-Kind (2024), Industrial controls instrumentation, SICK, Inc. Co-recipient: Dr. John Haughery, AEST, Millersville University of Pennsylvania.
\$2,000.00	IGVC 2nd Place AutoNav Award (2023). MU Robotics Team. Co-recipient: Dr. John Haughery, AEST. Millersville University of Pennsylvania.
\$3,000.00	SICK TiM10K Challenge Grant, TiM-P LiDAR, Cables, & Software. MU Robotics Team. Co-recipient: Dr. John Haughery, Millersville University of Pennsylvania.
\$1,500.00	IGVC 2nd Place Design Award (2022). MU Robotics Team. Co-recipient: Dr. John Haughery, AEST, Millersville University of Pennsylvania.
\$1,000.00	ATMAE Senior Fellow Travel Grant (2018), Engineering Technology Division Executive Committee Meeting, American Society for Engineering Education (ASEE) Conference, Salt Lake City, Nevada. AEST, Millersville University of Pennsylvania.
\$1,000.00	ATMAE Senior Fellow Travel Grant (2017), Engineering Technology National Forum (ETNF), Engineering Technology Council (ETC), American Society for Engineering Education (ASEE) Conference, Columbus, Ohio. AEST, Millersville University of Pennsylvania.
\$725.00	Gift-in-Kind (2016), Twelve air regulators, fittings & hose for automation lab, Airline Hydraulics. AEST, Millersville University of Pennsylvania.
\$618,000.00	Public/Private Partnership Grant (2016), 12 Industrial Robotic Arms with Integrated Cognex Vision Systems. Rixan Associates, Inc. Total Cost: \$794,512.00. Co-recipient: Dr. Michael Jackson, College of Science & Technology Dean. AEST, Millersville University of Pennsylvania.
\$14,335.00	Gift-in-Kind (2015), Fourteen 24VDC switch mode power supplies, Phoenix Contact. AEST, Millersville University of Pennsylvania.
\$500.00	Bob Garvey – Local Entrepreneur (2014), MU Robotics Fund 6033500030 (formerly Fund #3558) Monetary Donation. Thank you for control systems assistance (Phase II) for his new exercise product. AEST, Millersville University of Pennsylvania.
\$1,280.00	Gift-in-Kind (2013), 160 ft2 Kombi carpet/flooring for humanoid robotics research (R&D Lab Rm 118, Osburn Hall), Regupol America, AEST, Millersville University of Pennsylvania.
\$500.00	Bob Garvey – Local Entrepreneur (2012), MU Robotics Fund 6033500030 (formerly Fund #3558) Monetary Donation. Thank you for control systems assistance (Phase I) for his new exercise product, AEST, Millersville University of Pennsylvania.
\$1,733.32	Gift-in-Kind (2010), Belts and tensioners for ATMAE robot development, Brown Transmission & Bearing Co. Co-recipient: Dr. Chris Erickson. AEST, Millersville University of Pennsylvania.
\$6,606.50	Gift-in-Kind (2010), 12 BP solar modules for alternative energy research and education, BP. Co-recipient: Dr. Mehmet Goksu, Physics. AEST, Millersville University of Pennsylvania.
\$1,057.22	Gift-in-Kind (2010), Additional pulleys and belts for new ATMAE robot project, Brown Transmission & Bearing Co. AEST, Millersville University of Pennsylvania.

\$678.60	Gift-in-Kind (2010), Timing belt and pulley parts for new ATMAE robot project, Brown Transmission & Bearing Co. AEST, Millersville University of Pennsylvania.
\$141.75	Gift-in-Kind (2009), Transmission/gears/chain parts for new ATMAE robot project, Brown Transmission & Bearing Co. AEST, Millersville University of Pennsylvania.
\$8,000.00	Sustainable Energy Fund. 2008 Solar Scholars Program Part 1: Summer Conference (Training for two participants from Millersville University). Co-recipient: Dr. Mehmet Goksu, Physics., AEST, Millersville University of Pennsylvania.
\$400.00	Gift-in-Kind (2006), Two .5 HP Hitachi L100 Variable Frequency Drives, RAM Industries, Inc. Co-recipient: Dr. Joseph McCade., AEST, Millersville University of Pennsylvania
\$750.00	Safe Harbor Water Power Corporation (2006), MU Robotics Fund #3558 Monetary Donation. AEST, Millersville University of Pennsylvania.
\$250.00	Marshal Kaiser (CEO) - Safe Harbor Water Power Corporation (2006), MU Robotics Fund #3558 Monetary Donation, AEST, Millersville University of Pennsylvania.
\$10,000.00	PA Department of Community and Economic Development (DCED): Lancaster/Harrisburg Keystone Investment Zone (KIZ) Grant (2006), Using CHAID Analysis for Economic Market Segmentation: Completing the Emprise™ System Product Suite, AEST, Millersville University of Pennsylvania.
\$40,000.00	Gift-in-Kind (2005), Four CRS A465 Robots, Graybill Machines, Inc. Co-recipient: Dr. Perry Gemmill. AEST, Millersville University of Pennsylvania.
\$107,000.00	Public/Private Partnership Grant (2004-2005), Advanced Robotics Center for Undergraduate Program Development and Improvement, Rixan Associates, Inc., ¼ Release Time, Spring 2005. Total Cost: \$212,757.00, AEST, Millersville University of Pennsylvania.
\$4,903.00	Pennsylvania State System of Higher Education (SSHE) Professional Development Grant, (2003-2004), Basic and Applied Research Category, Battery Thermal Management Systems, ¼ Release Time, Fall 2003. Robotics Training, AEST, Millersville University of Pennsylvania.
\$21,898.29	Electric Motorcycle Research Fund #3555 (1999-2004), AEST, Millersville University of Pennsylvania.

COURSE INSTRUCTION AT MILLERSVILLE:

AENG 494 Total Quality Management

The history and development of the quality movements; factors influencing the total quality concept; the scope of modern quality systems; management organization and strategies for quality; engineering technology for quality; and statistical tools for measurement and monitoring of quality (2 hours lecture, 3 hours lab). Prerequisite: MATH 130 & Senior Standing or permission of instructor.

AENG 467 Mobile Robotics

This course is a study of the development of mobile robotic solutions. Emphasis is placed on the programming and interfacing of microcontrollers to control autonomous mobile robots in known environments. A research and development activity is required. 2 hours lecture, 3 hours laboratory. Prerequisite: AENG 262 or permission of the instructor.

AENG 427 Programmable Logic Controllers

This course focuses on the integration and application of the programmable logic controller (PLC). Students design, construct and troubleshoot a variety of industrial control systems utilizing programmable logic controllers, networks, human-machine interfaces, variable frequency drives, control loops and

sensors. A research and development component required. 2 hours lecture, 3 hours lab. Prerequisites: AENG 425 & MATH 151 or 161.

AENG 425 Industrial Robotic Systems

This course focuses on the study of industrial robotics and modern machine vision technology. Topics include the evaluation, justification, programming, safety, and integration of industrial robotic devices with machine vision systems. 2 hours lecture, 3 hours lab. Prerequisite: AENG 325.

AENG 364 Digital Electronics

Practical applications of digital logic for processing electronically encoded information. Covers numbering systems, logic design, basic gates, sequential and combination logic, and digital troubleshooting (2 hours lecture, 3 hours lab). Prereq: AENG 262 or permission of instructor.

AENG 325 Power Conversion and Control

Applications of energy and power conversion devices and control systems. Includes disassembly and diagnosis of fluid motors and electric motors. Power circuitry is designed to perform specific industrial applications (2 hours lecture, 3 hours lab). Prereq: AENG 120 or 261.

AENG 262 Semiconductor Electronics

In-depth study of semiconductor theory, including diodes, transistors, field effect transistors, SCRs, triacs, and unijunction transistors. Overview of integrated circuits provided. Contains hands-on activities with breadboarding and fabrication of electronic circuits (2 hours lecture, 3 hours lab). Prereq: AENG 261.

AENG 261 Electronic Systems

Survey of electrical and selected electronics principles, typical applications, safe practices, and technological impacts. Practical applications include breadboarding, problem solving, use of test equipment and printed circuit board fabrication (2 hours lecture, 3 hours lab).

AENG 120 Energy and Power Systems

An introduction to energy and power systems. Principles of conventional and alternative energy resources and energy conservation, and electrical, fluid, and mechanical power will be studied along with environmental concerns associated with power production (2 hours lecture, 3 hours lab).

AENG 101 Introduction to Engineering

This course engages learners in using scientific and mathematical reasoning to explore and engage in engineering design, covers the fundamentals of the engineering design process, and exposes students to a wide range of career paths available to engineers, including engineering, applied engineering, and engineering technology areas. In this course, students will follow the creativity-based engineering design process through laboratory-based activities. Students will design and manufacture physical artifacts to meet a specific engineering challenge and must defend their decisions with scientific and mathematical reasoning. This course focuses on how engineers apply their creativity, resourcefulness, mathematical, scientific, and technical knowledge and skills in the creation or refinement of technological products/systems.

SUPERVISED STUDENT RESEARCH:

Millersville University of Pennsylvania

- [44] Wright, B. R. (In-progress). *Bridging theory and practice: A robotics contest for engineering education*. Undergraduate University Honors Thesis [Faculty Advisor].
- [43] Cope, S. R. & Kamel, G. A. (2025). *Researching and developing aerial microrobotics with onboard orientation detection using rapid prototyping techniques*. Undergraduate Honors Independent Study [Supervisor].
- [42] Troop, I. P. (2025). *Automating a low-cost, self-driving mobile robot*. Undergraduate Department Honors Thesis [Faculty Advisor].
- [41] Carpenter, D. E. (2025). *The integration of infrared camera (IR) sensor technology with machine vision and microcontrollers for detection of fire*. Undergraduate University Honors Thesis [Faculty Advisor].

- [40] Troop, I. P. (2024). *Developing a low-cost self-driving mobile robotic solution*. Undergraduate Independent Study [Supervisor].
- [39] Weaver, Z. A. (2024). *Developing a PLC-based Self-driving Robot*. Undergraduate Independent Study [Supervisor].
- [38] LaMontagne, J. N. (2024). *Using odometry to program complex autonomous paths on a gyroscopically oriented mecanum drive base*. Undergraduate Independent Study [Supervisor].
- [37] Favoroso, J. L. (2024). *Designing an OCR-based automated data catalog*. Undergraduate University Honors Thesis [Committee Member].
- [36] Troop, I. P. (2023). *Developing vector-based omnidirectional pathing using ROS environment local maps*. Undergraduate Independent Study [Supervisor].
- [35] Kennedy, J. (2023). *Exploring 2D TMDs for solar cell applications*. Undergraduate University Honors Thesis [Faculty Advisor].
- [34] Peluso, E. P. (2023). *Design and development of a modular door actuator*. Undergraduate University Honors Thesis [Committee Member].
- [33] Troop, I. P. (2023). *Distributed mobile robotic control & dual LiDAR systems integration*. Undergraduate Independent Study [Supervisor].
- [32] Ambler, B. J. (2022). *Using multiple industrial LiDAR systems to develop a digital array for advanced object detection*. Undergraduate Independent Study [Supervisor].
- [31] Martin, R. C. (2021). *Design, development, and implementation of a complex stacking/unstacking industrial robotic application*. Undergraduate Department Honors Applied Project [Faculty Advisor].
- [30] Murray, H. D. (2019). *GPS integration with microcontroller and/or personal computer using Robot Operating System (ROS) and Python*. Undergraduate Independent Study [Supervisor].
- [29] Murray, H. D. (2019). *Advanced mobile robotics*. Undergraduate Department Honors Applied Project [Faculty Advisor].
- [28] Wright, J. R. (2019). *Lean six sigma*. Undergraduate Department Honors Study [Faculty Advisor].
- [27] Funk, T. L. (2019). *Mobile robot navigation using computer vision*. Undergraduate Independent Study [Supervisor].
- [26] Vazquez, D. M. (2019). *Autonomous outdoor navigation and mapping*. Undergraduate Department Honors Applied Project [Faculty Advisor].
- [25] Gehron, D. A. (2018). *Machine vision techniques for object and line tracking*. Undergraduate Department Honors Applied Project [Faculty Advisor].
- [24] Chambers, W. B. (2018). *Computer & machine vision applied to mobile robots*. Undergraduate Department Honors Applied Project [Faculty Advisor].
- [23] Miller, A. J. (2018). *Osburn Hall promotional music video*. Undergraduate Department Honors Applied Project [Faculty Advisor].
- [22] Poff, D. R. (2018). *Digital robotic helmet*. Undergraduate Independent Study [Supervisor].
- [21] Wagner, K. L. (2017). *Multi-layer behavioral motion for artificially intelligent humanoids*. Undergraduate Department Honors Thesis [Faculty Advisor].
- [20] Wiles, M. P. (2017). *Part and feature recognition techniques for machine vision systems*. Undergraduate Department Honors Thesis [Faculty Advisor].
- [19] Bozzelli, N. A. (2017). *Vision-guided active compliance techniques for industrial robotics*. Undergraduate Department Honors Thesis [Faculty Advisor].
- [18] Coble, T. R. (2016). *Microcontrollers applied research and experimentation*. Undergraduate Independent Study [Supervisor].
- [17] Lees, R. R. (2016). *Active sensory perception for mobile robotics*. Undergraduate Independent Study [Supervisor].

- [16] Wells, J. R. (2014). *Advanced dynamic motion control and object tracking for humanoid robotics – Goal Kicking*. Undergraduate Independent Study [Supervisor].
- [15] Kilbourne, B. J. (2014). *Advanced dynamic motion control and object tracking for humanoid robotics – Goal Blocking*. Undergraduate Independent Study [Supervisor].
- [14] Snyder, A. R. (2013). *Implementation and development of a Cognex vision system training module*. Undergraduate Independent Study [Supervisor].
- [13] Ramos, G. G. (2013). *Development of interactive algorithms & code for robotic humanoid control*. Undergraduate Independent Study [Supervisor].
- [12] Sensenig, B. S. (2012). *Optimizing image characteristics for mobile sensory perception*. Undergraduate Department Honors Thesis [Faculty Advisor].
- [11] Freeman, M. K. (2009). *A unit of instruction in robotics*. Research and Development Project, M.Ed., Technology Education [Faculty Advisor].
- [10] Sickel, S. W. (2007). *Inductive sensory perception and communication*. Undergraduate Independent Study [Supervisor].
- [9] Vazquez, M. R. (2006). *Proportional-integral-derivative control*. Research and Development Project, M.Ed., Technology Education [Faculty Advisor].
- [8] Haughey, J. R. (2006). *Integration and optimization of a vision enhanced automated robotic work cell*. Undergraduate Department Honors Thesis. [Faculty Advisor].
- [7] Kuperavage, J. M. (2005). *An experimental testing of infrared sensor arrays to determine the most efficient number of sensors needed to detect an object, based on marginal product*. Undergraduate Department Honors Thesis* [Faculty Advisor].
*2005 Undergraduate University Honors Thesis of the Year (Breidenstine Award)
- [6] Smith, J. T. (2004). *Utilization and implementation of microcontrollers and the PBASIC programming language for the dynamic motion control of semi-autonomous mobile robots*. Undergraduate Independent Study [Supervisor].
- [5] Tarnowski, B. J. (2003). *Integration of wireless vision systems on mobile robot platforms*. Undergraduate Independent Study [Supervisor].
- [4] Vazquez, M. R. (2002). *Advanced topics in robotics*. Graduate Independent Study [Supervisor].
- [3] Sgro, S. D. (2000). *Double RF controlled PLC robots*. Undergraduate Independent Study. Millersville University of Pennsylvania [Supervisor].
- [2] Smith, E. (2000). *Renewable energy source*. Graduate Independent Study [Supervisor].
- [1] Polk, C. (1999). *PLC controlled mobile robots*. Undergraduate Independent Study [Supervisor].

Indiana State University

- [1] Hoffa, D. W. (2003). *Installation of a new robot into and the safety enhancement of an existing flexible manufacturing work cell*. Major Applied Project [M.S., Electronics & Computer Technology],
Electronics & Computer Technology Department [Committee Member].

SUPERVISED TEAM COMPETITION BUILDS: (7 Championships & 59 individual 1st-3rd place awards since 2001)

- [26] 2026 Intelligent Ground Vehicle Competition (IGVC). ATMAE student chapter robotics team (Ville Robotics). Oakland University, Rochester, Michigan.
 - 4th Place Overall, AutoNav (AN) – Project Phoenix
 - 3rd Place Performance (AN)
 - 1st Robot to Qualify Award (AN)

- [25] 2025 Intelligent Ground Vehicle Competition (IGVC). ATMAE student chapter robotics team (Ville Robotics). Oakland University, Rochester, Michigan.
 - 2nd Place Grand Award (LESCOE TROPHY), AutoNav (AN) – ALiEN 6.0
 - 2nd Place Performance (AN)
 - 8th Place Performance (AN) – N.A.G.L.F.A.R.E.
- [24] 2024 Intelligent Ground Vehicle Competition (IGVC). ATMAE student chapter robotics team (Ville Robotics). Oakland University, Rochester, Michigan.
 - 2nd Place Grand Award (LESCOE TROPHY), AutoNav (AN) & Self-Drive – ALiEN 5.0
 - 2nd Place Overall, AutoNav (AN) – ALiEN 5.0
 - 1st Robot to Qualify Award (AN)
 - 2nd Place Performance (AN)
- [23] 2023 Intelligent Ground Vehicle Competition (IGVC). ATMAE student chapter robotics team (Ville Robotics). Oakland University, Rochester, Michigan.
 - 2nd Place Overall, AutoNav (AN) – ALiEN 4.0
 - 1st Robot to Qualify Award (AN)
 - 2nd Place Performance (AN)
 - 3rd Place Grand Award (LESCOE AWARD), AutoNav (AN) & Self-Drive – ALiEN 4.0
- [22] 2023 SICK TiM\$10K Challenge. ATMAE student chapter robotics team (Ville Robotics). SICK USA, Minneapolis, Minnesota
 - Developed a tri-LiDAR Self-driving robot with a custom GUI interface for tuning the TiM LiDAR unit. • Video and white paper was submitted, but the team did not place.
- [21] 2022 The Association of Technology, Management, and Applied Engineering (ATMAE) Student Division Robotics Contest. ATMAE student chapter robotics team (Ville Robotics). ATMAE National Conference, Louisville, Kentucky.
 - 1st Place / **National Champions** – ALiEN 2.0
 - 1st Place Innovative Problem Solution
 - 1st Place Electrical/Controls Design
 - 2nd Place Mechanical/Manufacturing Design
 - 2nd Place Technical Communication Design
 - 3rd Place People’s Choice Award
- [20] 2022 Intelligent Ground Vehicle Competition (IGVC). AENG 467 mobile robotics class/ATMAE student chapter robotics team (Ville Robotics). Oakland University, Rochester, Michigan.
 - 4th Place Overall, AutoNav (AN) – ALiEN 2.0
 - 1st Robot to Qualify Award (AN)
 - 2nd Place Design (AN)
 - 6th Place Performance (AN)
 - Completed 4/5 AutoNav (AN) qualification requirements – ALiEN 3.0
- [19] 2021 The Association of Technology, Management, and Applied Engineering (ATMAE) Student Division Robotics Contest. ATMAE student chapter robotics team (Ville Robotics). ATMAE National Conference, Orlando, Florida.
 - 3rd Place Overall – TURTLE
 - 1st Place Manufacturing/Design
 - 1st Place Fan Vote
 - 2nd Place Poster
 - 2nd Place Electrical/Control Methodology
 - 5th Place Performance

- [18] 2019 The Association of Technology, Management, and Applied Engineering (ATMAE) Semi-Autonomous Robotic Manipulator Contest. ATMAE student chapter robotics team (Ville Robotics). ATMAE National Conference, Charlotte, North Carolina.
 - 9th Place – SNAP
- [17] 2019 Intelligent Ground Vehicle Competition (IGVC). ATMAE student chapter robotics team (Ville Robotics). Oakland University, Rochester, Michigan.
 - Completed 4/5 AutoNav (AN) qualification requirements – ALiEN
- [16] 2016 The Association of Technology, Management, and Applied Engineering (ATMAE) Semi-Autonomous Robotic Manipulator Contest. ATMAE student chapter robotics team (Ville Robotics). ATMAE National Conference, Orlando, Florida.
 - 2nd Place – MAVIS 2.0
- [15] 2015 The Association of Technology, Management, and Applied Engineering (ATMAE) Semi-Autonomous Robotic Manipulator Contest. ATMAE student chapter robotics team (Ville Robotics). ATMAE National Conference, Pittsburgh, Pennsylvania.
 - 1st Place / **National Champions** – MAVIS 1.0
 - 1st Place Fan Vote
 - 1st Place Fabrication/Innovation
 - 1st Place Poster
 - 1st Place Team Presentation/Technical Report
 - 1st Place Performance (Relay Race)
 - 2nd Place Performance (Obstacle Course)
 - 2nd Place Electrical/Controller Methodology
- [14] 2014 The Association of Technology, Management, and Applied Engineering (ATMAE) Robotic Olympics Contest. ATMAE student chapter robotics team (Ville Robotics). ATMAE National Conference, St. Louis, Missouri.
 - 4th Place Overall – TOM
 - 1st Place Poster
 - 1st Place Electrical/Control Methodology
 - 3rd Place Manufacturing/Design
- [13] 2013 The Association of Technology, Management, and Applied Engineering (ATMAE) Semi-Autonomous Robotic Manipulator Contest. ATMAE student chapter robotics team (Ville Robotics). ATMAE National Conference, New Orleans, Louisiana.
 - 1st Place / **National Champions** – SAMSON
 - 1st Place Performance
 - 1st Place Poster
 - 1st Place Technical Report
- [12] 2011 The Association of Technology, Management, and Applied Engineering (ATMAE) Semi-Autonomous Robotic Manipulator Contest. ATMAE student chapter robotics team (Ville Robotics). ATMAE National Conference, Cleveland, Ohio.
 - 3rd Place Overall – MAC DADI
 - 1st Place Manufacturing
 - 1st Place Technical Paper
 - 1st Place Electrical/Control Methodology
- [11] 2010 The Association of Technology, Management, and Applied Engineering (ATMAE) Semi-Autonomous Robotic Manipulator Contest. ATMAE student chapter robotics team (Ville Robotics). ATMAE National Conference, Panama City, Florida.
 - 1st Place / **National Champions** – SAM
 - 1st Place Performance

- 1st Place Electrical/Control Methodology
- [10] 2010 Trinity College Home Fire Fighting Robot Contest. ITEC 467, microcontroller electronics class. Trinity College, Hartford, Connecticut.
 - 9th place – Team Marauder
- [9] 2008 Trinity College Home Fire Fighting Robot Contest. ITEC 467, microprocessors electronics class & NAIT student chapter's robotics team (three robots entered). Trinity College, Hartford, Connecticut.
 - 8th Place – Team Black
 - 9th Place – Team Gold
 - 12th place – Team Marauder
- [8] 2007 National Association of Industrial Technology (NAIT) Tele-operated Robotic Manipulator Contest. NAIT student chapter robotics team. NAIT National Conference, Panama City, Florida.
 - 3rd Place Overall – MF-1
 - 1st Place Poster
 - 1st Place Electrical/Control Methodology
- [7] 2006 Trinity College Home Fire Fighting Robot Contest. ITEC 467, microprocessors electronics class (two robots entered). Trinity College, Hartford, Connecticut.
 - 13th Place (Tie) – Team Black & Team Gold
- [6] 2004 National Robotics Challenge. University of Northern Ohio, Marion, Ohio.
 - 2nd Place / Silver Award, Robot Construction – SA-1
- [5] 2004 National Association of Industrial Technology (NAIT) Tele-operated Robotic Manipulator Contest (Vision Class). NAIT student chapter robotics team. NAIT National Conference, Louisville, Kentucky.
 - 2nd Place Overall – SA-1
 - 1st Place Poster
 - 1st Place Design & Innovation
- [4] 2003 Society of Manufacturing Engineers (SME) Robotics Contest. NAIT student chapter robotics team. Rochester Institute of Technology, Rochester, New York.
 - 1st Place / Gold Award, Robot Construction **National Champions** – RRS
- [3] 2003 National Association of Industrial Technology (NAIT) Tele-operated Robotic Manipulator Contest. NAIT student chapter robotics team. NAIT National Conference, Nashville, Tennessee.
 - 4th Place – Churchill
- [2] 2002 National Association of Industrial Technology (NAIT) Tele-operated Robotic Manipulator Contest. NAIT student chapter robotics team. NAIT National Conference, Panama City, Florida.
 - 2nd Place – RRS
- [1] 2001 Society of Manufacturing Engineers (SME) Robotics Contest. NAIT student chapter robotics team. Robert Morris University, Moon Township, Pennsylvania.
 - 1st Place / Gold Award, Robot Construction **National Champions**, Erle Smith - Pyrobot
 - 1st Place / Gold Award, Virtual Programming **National Champions**, Matt Vazquez

SUPERVISED INTERNSHIP EXPERIENCES:

- [72] Metzger, Vance (2026). Paving Field Engineer. Allan Myers, Worcester, PA. Mr. Neil Bratton.
- [71] Gooding, Travis (2026). Construction Intern. Whiting-Turner Contracting Company, Harrisburg, PA. Mr. Patrick Judd.
- [70] Maile, Kristen (2026). Intern. PRL Industries, Inc., Cornwall, PA. Mr. Andy Oskam.
- [69] Watts, Jayden (2026). Intern. Warfel Construction Company, East Petersburg, PA. Mr. Chris Joseph.

- [68] New, Connor (2026). Engineer Intern. Above Air Technologies, Frederick, MD. Mr. Jim Steele.
- [67] Florentino, Brailey (2026). Assistant Project Manager. JEM GROUP, LLC., Camp Hill, PA. Ms. Claudia Rivera Burgos.
- [66] Karnbach, Alexander (2026). Assistant Project Manager. RJB Contracting, Spring City, PA. Ms. Maddie Bacsikai.
- [65] Miller, Aiden (2026). Project Engineer Intern. Keystruct, York, PA. Ms. Mellissa Martin.
- [64] Smith, Jordan (2026). Laborer. CCS Building Group, Willow Street, PA. Mr. Duane Sellers.
- [63] Adams, Carter (2026). Foreman. Weller Construction, Denver, PA. Mr. Steve Weller, Jr.
- [62] Carey, Aidan (2025). Superintendent. Erwin Forrest Builders, Allentown, PA. Mr. Alex Brochu.
- [61] McDowell, Trent (2025). Working Foreman/Manager. SLC Excavating, Quarryville, PA. Mr. Blake Murphy.
- [60] Miller, Adam (2025). Controls Technician Intern. Wolfgang Confectioners, York, PA. Mr. Andrew Ogilvie.
- [59] McKenna, Dillon (2025). Assistant Project Manager. L&L Paving Co., Farmingdale, NJ.
- [58] Malisawa, Shabani (2025). Project Engineer Intern. Wohlsen Construction. Lancaster, PA Ms. Lisa Murray.
- [57] Melander, Dadyen (2025). Intern. Precision Technology, Inc., Douglassville, PA
- [56] Taveras, Adrian (2025). Intern. Paul Risk Construction. Quarryville, PA. Mr. Ryan Miller.
- [55] Redding, Luke (2024). Superintendent Assistant. East Coast Contracting Inc. New Cumberland, PA. Mr. Nick Kostelac.
- [54] Quinn, Ashlynn (2024). Quality Engineer Intern. Woodstream Manufacturing. Litiz, PA. Mr. Mark Cairnie.
- [53] Taveras, Adrian (2024). Construction Summer Internship. Paul Risk Construction. Quarryville, PA. Mr. DJ Risk.
- [52] Maiellano, Nathaniel (2024). Construction Management Intern. Calabrese Good Architects, Leola, PA. Mr. Wesley Morgan.
- [51] Rysak, Connor (2024). Intern Project Manager. Benchmark Construction Co., Ephrata, PA. Ms. Sherrill Martin.
- [50] McPhillips, Meg (2024). Summer Intern. Burkey Construction, Reading, PA. Mr. Frank Watts.
- [49] Lopez-deLaCruz, Christopher (2024). Intern. Warfel Construction Company, East Petersburg, PA. Mr. Dylan Keller.
- [48] Miller, Adam (2024). Industrial Engineering Intern. Utz Quality Foods, Inc., Hanover, PA. Mr. Cody Burkes.
- [47] Hargrove, Sydney (2024). Business Co-op. Toyota Motor North America, 100% Virtual/Remote. Mr. Steve Birri.
- [46] Woodard, Lexis (2023). IT Production Intern. Universal Printing Company, LLC., Dunmore, PA. Mr. John Schultz.
- [45] Perry, Benjamin (2023). Engineering Intern. Schindler Manufacturing, Hanover, PA. Mr. Steven Bull.
- [44] Merilus, Samuel (2023). Intern. Tier 1 Utility Design, Inc., Reading, PA. Ms. Lisa Miller
- [43] Kennedy, Joseph (2023). Drafting and Design Engineer. Weaver Systems, Gap, PA. Ms. Ashley Weaver.
- [42] Carpenter, Daniel (2022). Maintenance Reliability Planner & Scheduler. Cargill, Lititz, PA. Mr. Joel Swartz.
- [41] Hendrzak, Nicholas (2021, x2). Clinical Manufacturing Associate. Altascience, Harleysville, PA. Mr. Scott Myslinki.

- [40] Kiesel, Robert (2021). Controls Engineer Intern. Multi-Dimensional Integration, Shrewsbury, PA. Mr. John Kuperavage.
- [39] Laverio, Shaylene (2021). Controls Engineer Intern. Multi-Dimensional Integration, Shrewsbury, PA. Mr. John Kuperavage.
- [38] Case, Jenna (2020). Surface Mount Technician Assistant. ETEMCO, Lancaster, PA. Mr. Edward Hockenberry.
- [37] Gaines, David (2020). Automation Technician Intern. Tyson Foods, Inc., New Holland, PA. Mr. Rick Bellmer.
- [36] Rivera, Giovanni (2020). Automation Technician Intern. Tyson Foods, Inc., New Holland, PA. Mr. Rick Bellmer.
- [35] Kury, Nathan (2019). System Integrator Intern. Engel Machinery, York, PA. Mr. Michael Wiles.
- [34] Miller, Tyler (2019). System Integrator Intern. Engel Machinery, York, PA. Mr. Michael Wiles.
- [33] Cartusciello, Bailey (2018). Electrical Controls Engineering Intern. PrecisionForm, Inc., Lititz, PA. Mr. Guscott.
- [32] Bortner, Grant (2018). Controls Engineering Intern, Multi-Dimensional Integration, Shrewsbury, PA. Mr. Mike Ficchi.
- [31] Martin, Cody (2017). AutoCAD Designer Intern, Trijay Systems, Inc., Line Lexington, PA. Mr. Ken Radley.
- [30] Kilgore, Quentin (2017). Automation & Software Intern, Engel Machinery, York, PA. Mr. Stefan Aberl.
- [29] Jones, Shakar (2017). Electrical Engineer Intern, Communications Test Design, Inc. (CTDI), West Chester, PA. Mr. Steve Citrullo.
- [28] Krape, Jonathan (2013). Engineering Assistant, Precision Medical Products, Inc., Denver, PA. Mr. Carson Sleeper.
- [27] Hanson, Jonathan (2012). Jr. Superintendent, Moser Group, Chalfont, PA. Mr. Edward Moser.
- [26] Bloch, Alex (2011). Program Manager, Macron Dynamics, Croydon, PA. Mr. Craig Marshal.
- [25] Baxeavane-Connell (2010). Shipping Intern, Weiler Corporation, Cresco, PA. Ms. Cindy Evans.
- [24] Alexander, Terry (2008). Asset Reliability II Intern, The Hershey Company, Hershey PA. Mr. Jeff Klahre.
- [23] Rodriguez, Juan (2008). Technical Support Intern, The RG Group, York, PA. Mr. Greg Yohe.
- [22] Shannon, Timothy (2007). Intern, Schrader Mechanical, Landenberg, PA. Mr. Bruce Shannon.
- [21] Brumbaugh, Seth (2007). Co-op Engineer, Harley Davidson Inc., York, PA. Mr. Victor Marquez.
- [20] Ficchi, Mike (2007). Intern, Multi-Dimensional Integration, Shrewsbury, PA. Mr. Chris Roush.
- [19] Klinger, Dustin (2006). Manufacturing Engineer Level 1, Souriau USA, York, PA. Mr. Richard Moore.
- [18] Nichols, Ian (2005). Roadway Management Intern, PA Department of Transportation, Harrisburg, PA. Mr. Rod Irvin.
- [17] Malora, Doug (2005). Asst. CAD Operator, Clair Brothers Audio Systems, Lititz, PA. Mr. Barry Clair.
- [16] Romine, Scott (2005). Center Director for Computer Operations, MU Center for Disaster & Research Education, Millersville University, Millersville, PA. Dr. Henry Fischer.
- [15] Mooney, Zachary (2005). Drafting & Design Intern, Architectural Resources, Lancaster, PA. Mr. Kevin Miller.
- [14] Keller, Christopher (2005). PTE Intern, MU Professional Training & Education, Millersville University, Millersville, PA. Ms. Loreal Maguire.
- [13] Frederick, Michael (2005). Process Engineer, Fabral, Lancaster, PA. Mr. Joseph Carr.
- [12] Strawn, Ian (2004). Autocad Operator, Johnson & Johnson Merck, Lancaster, PA. Mr. Larry Lane.

- [11] Parker, Richard (2002). CommTech 5, Comcast Cable/Suburban Cable, Lancaster, PA. Mr. Bruce Luegers.
- [10] Snyder, Kenny (2002). Intern. Bethlehem Lukens Plate, Coatesville, PA. Mr. Troy Graver.
- [9] Aubry, William (2001). Control Technician, Optimum Controls, Reading, PA. Mr. Mike Galiyano.
- [8] Gates, Samuel (2001). Manufacturing Intern, Donsco Inc., Wrightsville, PA. Mr. Steve Keller.
- [7] Arnold, David (2001). Electro-Mechanical Technician, Nichia America Corp., Lancaster, PA. Mr. Robert Thomson.
- [6] Cleary, Thomas (2001). General Manager, Wheels Motor Sports, Toms River, NJ. Mr. Tom Cleary.
- [5] Helderma, Paul (2000). Intern, Phillips Comm & Security Systems Inc, Lancaster, PA. Mr. John Richie.
- [4] Morganstern, Matthew (2000). Draftsman Intern, ITW DACCO, Somerset, NJ. Mr. Dave Gilmore.
- [3] Sgro, Sergio (2000). Process Engineering Coop., Carpenter Technology Corp., Reading, PA. Mr. Jim Andora.
- [2] Yackaneck, Nicholas (2000). Engineering Technician, Turkey Hill Dairy, Conestoga, PA. Mr. Bill Gregory.
- [1] Keithley, Michael (1999). Manufacturing Intern, Donsco Inc., Wrightsville, PA. Mr. Chris Buck.

NATIONAL SERVICE:

Institute for Electrical and Electronic Engineers (IEEE)

- International Conference on Robotics and Automation (ICRA) – Paper Reviewer (2015)
- American Controls Conference (ACC) – Paper Reviewer (2001)

The American Society for Engineering Education

- Engineering Technology Division Conference Reviewer – Abstract Proposals & Papers (2011, 2022)

The Association of Technology, Management, and Applied Engineering (ATMAE)

- Member, Ad Hoc Bylaws Review Committee for Board of Directors (2024-Present)
- EECT Special Interest Division Conference Reviewer/Subcommittee Chair* (2005, 2007, 2011*, 2019, 2022)
- Certified Controls Engineer Exam Development Commission Member (2014-2020)
- CIP Code Task Force (2017-2019)
- Best Conference Paper Review Committee (2014-2015)
- Board of Directors Ad hoc Bylaws Review Committee (2014-2015)
- Review Board Member: Journal of Technology, Management, & Applied Engineering (JTMAE) formerly known as The Journal of Industrial Technology (JIT) (2001-2009, 2013-2015)
- Past Chairs Board of Directors Advisory Subcommittee (2013)
- Member, Ad hoc Committee for Developing “The Technologist” Publication (2005-2006)
- EECT Special Interest Division Awards Committee Chair (2005-2006)
- Research Special Interest Division Conference Review Committee Member - Abstract Proposals (2005)
- Member, Ad hoc Committee for Operations and Policy of the Journal of Industrial Technology (JIT) (2002-2003)

U.S. of Bureau of Labor Statistics

- Field Reviewer for *The Occupational Outlook Handbook* (ATMAE Representative), Engineering Management Definition (2011)

UNIVERSITY-WIDE & COLLEGE/SCHOOL SERVICE:

Millersville University of Pennsylvania

- Internship Coordinators Committee (2023-Present)
- Search Committee Member, Inaugural College of Business Dean (2019-2020)
- Undergraduate Commencement Marshal, School of Science and Technology (2019)
- School of Education Curriculum Committee Member (2003-2005, 2013-2014)
- University-wide Promotion & Tenure Committee Member (2010-2012)
- General Education Review Committee (GERC) Member (2008-2011)
- Faculty Senator (2011)
- APSCUF Department Representative (2008-2009)
- Alternate Senate Member (2002-2009)
- Academic Policies Committee (2005-2006)
- Teacher Education University Committee (TEC) Member: School of Education, (2001-2005)
- Academic & Cultural Enrichment Committee Member (2002-2004)
- Graduate Task Force in Environmental Science/Environmental Education Member: University-wide Committee (2000-2003)
- Faculty Advisor, Chinese Visiting Scholar-Shanghai Project (2001-2002)

DEPARTMENTAL SERVICE:

Millersville University of Pennsylvania

- Applied Engineering & Technology Management (AETM) Program Coordinator (2023-Present)
- Applied Engineering & Technology Program Committee (2006-2014, 2018-2023), (Chair, 2008-2010, 2023-Present)
- Professional Standards Committee
 - Promotion, Tenure & 5-year Review Subcommittee (Co-chair, 2025-Present)
 - Tenure-Track & PTFT Reappointment Subcommittee (2016-2017, 2022-2025), (Chair, 2016-2017)
 - Promotion & Tenure Subcommittee (Chair, 2021-2022)
 - Promotion, Tenure & Tenure-Track Reappointment Subcommittee (2004-2008, 2009-2010, 2013-2014, 2015-2021), (Chair, 2017-2018)
 - PTFT Faculty Subcommittee (2008-2009, 2024-2025)
- Advisor, ATMAE Club/MU Robotics Team (Lead Advisor 2001-2004, 2007-2014, 2024-2026, Co Advisor 2015-2020, 2021-2024)
- Epsilon Pi Tau Honorary (Co-trustee 2023-2026)
- Faculty Search Committees
 - Construction Management Faculty Position (2025-2026)
 - Production Technology Faculty Position (2023)
 - Automation & Electronics Technologies Faculty Position (Chair, 2019-2020)
 - Manufacturing Technology Faculty Position (2015-2016)
 - Construction Technology Faculty Position (Co-chair, 2013-2014)
 - Industrial Design & Drafting Faculty Position (2012-2013)
 - Manufacturing Technology Faculty Position (Chair, 2011-2012)
 - Energy, Power, Transportation Part-time Temporary Position (Chair, 2007-2008)
 - Design, Innovation & Communication Systems Position (Chair, 2004)
 - General Technology Full-time Temporary Position (Chair, 2003)
 - Industrial Technology Faculty Position (2002-2003)
- Department Chair Nominations Committee (2019), (Chair, 2025)

- Applied Engineering & Technology Management (AETM) Nanofabrication Manufacturing Technology (NFMT) Program Coordinator (2019-2023)
- Budget Committee (1999-2008, 2020-2024), (Chair, 2005-2008, 2020-2022)
- Assessment Committee (2008-2013, 2015-2022), (Chair, 2008-2010)
- Automation & Intelligent Robotics Engineering Technology Founding Program Coordinator (2015-2022)
- Graduate Committee (2001-2004, 2019)
- Lead Advisor, Submersible Research Team (2012-2014)
- Industrial Technology Program Coordinator (2008-2010)
- ITEC Advisory Council Coordinator (2008-2010)
- Curriculum Committee (2005-2008)
- Professional Development Committee (2001-2005), (Chair, 2004-2005)
- Advisor, Electric Motorcycle Research Team (1999-2004)
- Industrial Technology Accreditation Committee (2000-2002)
- Activities and Recruitment Committee (1999-2002), (Chair, 2001-2002)

COMMUNITY SERVICE:

- Red Cross Preparedness Volunteer, Central Pennsylvania Chapter, Manheim, PA (August 4, 2024)
- Red Cross Shelter Logistics Volunteer, Central Pennsylvania Chapter, Manheim, PA (July 17, 2022)
- Meals on Wheels Volunteer, Lancaster County, Lancaster PA (2020)
- J.P. McCaskey High School Band Volunteer, Friends of Music (2018-2020)
- Red Cross Home Fire Alarm Supply Logistics Volunteer, Central Pennsylvania Chapter, Harrisburg, PA (September 8, 2017)
- Red Cross Home Fire Alarm Volunteer Installer, Central Pennsylvania Chapter, Columbia, PA (May 19, 2017)
- Burrowes Elementary PTO Volunteer (2011-2014)
- Lincoln Middle School (Enrichment Program) Robotics Curriculum Volunteer Instructor (2007-2010)
- Lancaster Youth Baseball Major League Volunteer Assistant Coach, Mets (2008)
- Burrowes Elementary (Enrichment Program) Robotics Curriculum Volunteer Instructor (2006-2008)
- Medulla Palooza Volunteer, Franklin and Marshall University [Egg Drop Contest] (2007)
- Lancaster Instructional Baseball League Volunteer Assistant Coach, Red Sox (2007)
- Odyssey of the Mind (OOTM) Volunteer, Burrowes Elementary School (2006-2007)
- Lancaster Instructional Baseball League Volunteer Assistant Coach, Team Blue (2006)
- Neighborhood Services (5th-8th Grade After School Program) Robotics/Control Eng. Volunteer (2006)
- MU Lancaster Partnership (Corporate Mentor) Program (2001-2003)
- Burrowes Elementary (Kindergarten) School Math Volunteer (2001-2002)