# Board of Trustees March 2023 Special Called Meeting

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| **Schedule** | Monday, March 20, 2023 4:00 PM — 4:30 PM CDT |
| **Venue** | Zoom Webinar |
| **Organizer** | Sparkle Burns |

## Agenda


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# 1. Call to Order and Opening Remarks

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# 2. Roll Call/ Declaration of Quorum/Meeting for Necessity

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# 3. Appointment of Provost

Presented by Bill Hardgrave

# The University of Memphis Board of Trustees

Recommendation

For Approval

**Date:** March 20, 2023

**Presentation:** Appointment Tenure Upon Appointment – David Russomanno

**Presented by:** Dr. Bill Hardgrave, President

**Background:**

Dr. David Russomanno is the dean of the Purdue School of Engineering and Technology at Indiana University - Purdue University Indianapolis ("IUPUI"). Dr. Russomanno completed a B.S. in Electrical Engineering from Auburn University, M.S. in Electrical and Computer Engineering from the University of South Carolina (USC), and a Ph.D. in Computer Engineering from the USC. Dr. Russomanno's expertise is in intelligent sensors and supporting software infrastructure, knowledge representation and inference, including Sematic Web applications, data and knowledge visualization, software engineering, logic programming applications, and geographic information systems (GIS). After years in the private sector working for Pratt and Whitney Aircraft, Michelin Tire Corp., and Integraph Corporation, he joined the faculty at the University of Memphis in 1993. At Memphis, he was a tenured full professor and eventually served as the R. Eugene Smith professor and department chair in the Department of Electrical and Computer Engineering in the Herff College of Engineering. He joined the IUPUI faculty and was named dean in 2010. Dr. Russomanno received the IU Bicentennial Medal in August 2019 in recognition of his distinguished service as dean of the Purdue School of Engineering and Technology at IUPUI.

Pursuant to 4.9.3. (A.) of the Faculty Handbook, "in exceptional cases an outstanding distinguished senior faculty member … provost … maybe awarded tenure upon appointment upon her or his initial appointment." The handbook further states that the Board will grant tenure upon initial appointment only if the proposed appointee (1) holds tenure at another higher education institution and the Board determines that the president has documented that the proposed appointee cannot be successfully recruited to the university without being granted tenure upon initial appointment, and (2) will be appointed as an associate or full professor. Dr. Russomanno's achievements and level of activities in research, instruction, and service as evidenced by the attached CV are well above the minimum expectations for receiving tenure and are on par with other high achieving, high performing tenured full professors and chair of excellence professors at the University of Memphis. Dr. Russomanno currently holds tenure at IUPUI and has held tenure at the University of Memphis. It is imperative that tenure be awarded upon appointment for Dr. Russomanno to transition to the position of Executive Vice President and Provost.

**Recommendation:**

The Board approves the appointment of Dr. David Russomanno as Executive Vice President and Provost and tenure upon appointment as full professor in the department of Electrical and Computer Engineering in the Herff College of Engineering.

# David J. Russomanno, Ph.D.

**Dean, Purdue School of Engineering and Technology**
Indiana University—Purdue University Indianapolis (IUPUI)

## EDUCATION

| DEGREE | DISCIPLINE | INSTITUTION | YEAR |
|---|---|---|---|
| Doctor of Philosophy (Ph.D.) | Computer Engineering | University of South Carolina | 1993 |
| Master of Engineering (M.E.) | Electrical and Computer Engineering | University of South Carolina | 1989 |
| Bachelor of Electrical Eng. (B.E.E.) | Electrical Engineering | Auburn University | 1986 |

## ADMINISTRATIVE APPOINTMENTS

| POSITION | DEPARTMENT/UNIT | COMPANY/INSTITUTION | PERIOD |
|---|---|---|---|
| Dean | Purdue School of Engineering and Technology | Indiana University—Purdue University Indianapolis | 2010 – |
| Director (Interim)<br>Note: was not an applicant for the permanent position | Center for Advanced Robotics | FedEx Institute of Technology, University of Memphis | 2007 – 2008 |
| Department Chair (and holder of the R. Eugene Smith Endowed Professorship from 2007) | Electrical and Computer Engineering | Herff College of Engineering, University of Memphis | 2005 – 2010 |
| Department Chair (Interim) | Electrical and Computer Engineering | Herff College of Engineering, University of Memphis | 2004 – 2005 |
| President and Founder (Part-time) | Artificial Intelligence and Geographical Information Systems | AI-GIS Technologies, Incorporated | 2000 – 2005 |
| Program Coordinator | Computer Engineering | Herff College of Engineering, University of Memphis | 1999 – 2004 |

## ACADEMIC/FACULTY APPOINTMENTS

| RANK | DEPARTMENT/UNIT | INSTITUTION | PERIOD |
|---|---|---|---|
| Professor (with tenure) | Electrical and Computer Engineering | Purdue School of Engineering and Technology, IUPUI | 2010 – |
| Professor (graduate faculty) | Graduate School | Purdue University | 2010 – |
| Professor (adjunct) | School of Informatics and Computing | Indiana University | 2010 – |
| Professor (full graduate faculty) | Electrical and Computer Engineering | University of Memphis | 2010 – 2020 |
| Professor (adjunct graduate faculty) | Biomedical Engineering | University of Memphis | 2010 – 2016 |
| Professor (with tenure) | Electrical and Computer Engineering | University of Memphis | 2005 – 2010 |

## ACADEMIC/FACULTY APPOINTMENTS (continued)

| RANK | DEPARTMENT/UNIT | INSTITUTION | PERIOD |
|---|---|---|---|
| Associate Professor (with tenure) | Electrical and Computer Engineering | University of Memphis | 1999 – 2005 |
| Assistant Professor | Electrical Engineering | University of Memphis | 1993 – 1999 |
| Graduate Assistant | Electrical and Computer Engineering | University of South Carolina | 1990 |

## INDUSTRIAL EXPERIENCE

| POSITION | DEPARTMENT | COMPANY | PERIOD |
|---|---|---|---|
| Independent Consultant (Part-time) | Sole Proprietor | Various Clients | 2005 – 2012 |
| Chief Software Architect (Part-time) | Artificial Intelligence and Geographical Information Systems | AI-GIS Technologies, Incorporated | 2000 – 2005 |
| AM/FM/GIS Consultant | Solutions Engineering | Intergraph Corporation | 1991 – 1993 |
| Software Engineer | Measurement and Control Engineering | Michelin Tire Corporation | 1988 – 1990 |
| Digital Control Engineer | Controls Engineering | Pratt and Whitney Aircraft | 1986 – 1988 |

## HONORS/AWARDS

| HONOR/AWARD | INSTITUTION/COMPANY | PERIOD |
|---|---|---|
| Indiana University (IU) Bicentennial Medal (bestowed by President Michael McRobbie for broadening the reach of IU around the state, nation, and world) | Indiana University | 2019 |
| Eminent Engineer (National Engineering Honor Society) | Tau Beta Pi Association | 2015 |
| *IEEE International Conference on Electro/Information Technology* "Best Paper: 3rd Place" Award (International Award) | Institute for Electrical and Electronics Engineers (IEEE) | 2012 |
| Selected as Founding Member of the Indiana Automotive Council (appointed by Governor Mitch Daniels, Indiana) | Facilitated by Conexus Indiana | 2011 – 2018 |
| Selected as Founding Member of the Indiana Aerospace and Defense Council (appointed by Governor Mitch Daniels) | Facilitated by Conexus Indiana | 2011 – 2016 |
| R. Eugene Smith Professorship (endowed) | Herbert Herff Trust<br>University of Memphis | 2007 – 2010 |
| Elevated to Senior Member grade in the ACM | Association for Computing Machinery | 2007 |
| Various Who's Who Listings | Marquis, Academic Keys, etc. | 2007 – |
| Herff College of Engineering Outstanding Faculty Research Award (note: only 1 award per year in the entire College) | University of Memphis | 2006 |
| Selected for Regents Academic Leadership Institute (appointed by President Shirley Raines, U. of Memphis) | Tennessee Board of Regents | 2006 |
| Herff College of Engineering Outstanding Faculty Teaching Award (note: only 1 award per year in the entire College) | University of Memphis | 2005 |
| Founding Fellow of the FedEx Institute of Technology | Fed Ex/University of Memphis | 2003 |

## HONORS/AWARDS (continued)

| HONOR/AWARD | INSTITUTION/COMPANY | PERIOD |
|---|---|---|
| Ballard Professorship in Electrical and Computer Engineering | Ballard Trust<br>University of Memphis | 2003 – 2007 |
| IEEE Featured Engineer of the Year (Regional Award) | IEEE | 2001 |
| Electrical Controls Inc. Professorship in Electrical and Computer Engineering | Electrical Controls Inc.<br>University of Memphis | 2000 – 2003 |
| *IEEE Transactions on Education* "Best Journal Paper of the Year" Award (International Award) | IEEE Education Society | 2000 |
| IEEE Third Millennium Medal (International Award) | IEEE | 2000 |
| IEEE Outstanding Engineering Educator (Regional Award) | IEEE | 1999 |
| Elevated to Senior Member grade in the IEEE | IEEE | 1998 |
| DuPont Corporation Ph.D. Graduate Fellowship (National Award) | E. I. du Pont de Nemours and Company<br>University of South Carolina | 1990 |
| Eta Kappa Nu (National Electrical Engineering Honor Society) | Eta Kappa Nu<br>Auburn University | 1985 |
| Sigma Pi Sigma (National Physics Honor Society) | Sigma Pi Sigma<br>Auburn University | 1985 |

## ACADEMIC ADMINISTRATIVE RESPONSIBILITIES & ACCOMPLISHMENTS*

### Dean, Purdue School of Engineering and Technology, IUPUI (2010 – present)

***Responsibilities***

- Responsible for 7 academic departments: biomedical engineering, electrical and computer engineering, mechanical and energy engineering, computer information and computer graphics technology, engineering technology, technology leadership and communication, and music and arts technology. The School of Engineering and Technology offers Indiana University (IU) and Purdue University (PU) degrees comprising 21 B.S., 8 M.S., and 5 Ph.D. degree programs and numerous undergraduate and graduate certificates.
- Responsible for approximately 77 tenured/tenure-track faculty; 46 non-tenure-track faculty; 125 affiliate faculty; 10 research associates; 61 administrative, clerical, and technical staff; and associated budgets (including operating, research, indirect cost recovery, foundation, and discretionary cash balances).
- Responsible for 4 School-wide support departments: Computer Network Center, Student and Career Services, Freshmen Engineering Center, and Development and External Relations.
- Responsible for 4 Indiana University research centers of excellence anchored within the School of Engineering and Technology: Richard G. Lugar Center for Renewable Energy, Donald Tavel Arts and Technology Research Center, Integrated Nano-Systems Development Institute, and Transportation and Autonomous Systems Institute.
- Responsible for several research laboratories housed within the School of Engineering and Technology including: Additive Manufacturing Lab, Advanced Materials Lab, Biometrics and Pattern Recognition Lab, Combustion and Propulsion Lab, Computational Fluid Dynamics Lab, Cyber Lab, Dental Mechanics Lab, Fuel Cell Lab, Internet of Things Lab, Motorsports Engineering Lab, Product Lifecycle Management Lab, Polymeric Biomaterials and Tissue Engineering Lab, and Vascular Mechanobiology Lab.

* Note that all the listed administrative accomplishments reflect a team effort and should not be interpreted as accomplished by Russomanno alone.

- Co-responsible for strategic input and partial seed funding of 3 IUPUI research centers: STEM Education Innovation and Research Institute; Biomechanics and Biomaterials Research Center; and the Institute for Integrative Artificial Intelligence in collaboration with other administrators.
- Responsible for the IUPUI Music Academy, a community music school under the auspices of the Department of Music and Arts Technology within the School of Engineering and Technology. The non-profit Academy provided professional music instruction to area residents. From 2010-2017, the Academy enrolled approximately 400 students each year, from 3 years of age through adulthood. The Academy is a member of the National Guild for Community Arts Education. The program was refocused in 2018 to align with music technology and music therapy academic program community outreach.

***Strategic Planning, Development, Enrollment Shaping, and Alumni Affairs***

- Led the development of the School of Engineering and Technology's 5-year strategic plans (2012-2017 and 2018-2023) to establish it as one of America's premier urban schools of engineering and technology. The School was ranked 97th in USNWR (2019 edition) in Best Graduate Schools Ranking (PhD granting) and ranked 99th USNWR (2018 edition) in Best Undergraduate Schools Ranking (PhD granting), the highest rankings ever achieved for the School in these categories and ahead of some flagship (R1) land-grant engineering colleges.
- Led the School of Engineering and Technology's participation throughout the silent and public phases of the IU Bicentennial Campaign, which concluded in September 2020. The School achieved 245% of its campaign goal with $41,561,483 raised (which was the largest amount by any academic unit at IUPUI other than the Schools of Medicine, Dentistry, and Philanthropy).
- Secured the lead gift to establish a Student Innovation Fund, which provides financial resources for undergraduate student-led entrepreneurial projects. Secured several multi-million-dollar planned gifts to the School of Engineering and Technology for scholarships.
- Strengthened the financial position of the School of Engineering and Technology growing annual revenue approximately 60% over a 6-year period, despite declines in state appropriation revenue to the School. Accumulated over $30 million dollars in cash reserves to fund strategic initiatives such as facilities renovation, new building construction, and student success through evidence-based, high-impact practices.
- Set an all-time enrollment record in the F16 semester with 3,354 students pursuing programs offered by the School of Engineering and Technology (excluding students in University College), which made it the largest unit at IUPUI in terms of degree-seeking students.
- Set an all-time record in the 2018-2019 academic year with over 870 degrees awarded from the School of Engineering and Technology.
- Increased annual enrollment in the School of Engineering and Technology by 77% for out-of-state students (n=857); 46% for students of color (n=761); and 50% for women (n=796) over an 8-year period (F12 to F19).
- Increased annual degree production for numerous School of Engineering and Technology programs over an 8-year period. Notable examples include B.S. programs in engineering 119% (n=315); B.S. computer and information technology 82% (n=93); and M.S. and Ph.D. programs in engineering 171% (n=152). Increased 4-year B.S. graduation rate across the School by 13% for first-time beginners (AY12 to AY17).
- Cited (IUPUI) by an executive from the National Science Foundation (NSF) in testimony to the U.S. House of Representatives Committee on Science, Space, and Technology as a STEM Talent Expansion program exemplar. The testimony cited the increase of STEM degrees by over 25% over a 3-year period by use of peer mentoring, facilitated community college transfers, and a high school to college transfer program.
- Increased alumni volunteerism, engagement, and giving through anchor city events held in strategic locations having alumni clusters, including Chicago, IL; San Francisco, CA; Washington, DC; Beijing, China; Kuala Lumpur, Malaysia; Riyadh, Saudi Arabia; Dammam, Saudi Arabia; and Bangkok, Thailand.
- Established annual alumnae and women in engineering and technology student connections event in 2014 and the annual black alumni and student networking in engineering and technology event in 2016.

***DEI and Faculty/Staff Advancement***

- Led the development of the School of Engineering and Technology's 5-year Diversity, Equity, and Inclusion (DEI) strategic plan (2021-2026) aligned around four diversity indicators to ensure the School reaches its full potential.
- Led the development of the vision to establish a Center for Equity in Engineering (CEE) with planning grant funded by the National Science Foundation in 2022 (Award No. 2232367). The vision incorporates the School's DEI plan along with the 17 UN Sustainability Goals as a guide for the CEE's mission. IUPUI was ranked 2nd in the nation and 28th in the world in 2021 by the Times Higher Education Impact Rankings for its commitment to sustainability and making our world a better place.
- Selected in 2019, based on a peer-reviewed self-study application, as an inaugural member of the American Society for Engineering Education (ASEE) Diversity Recognition Program (ADRP). ADRP was created to publicly recognize those engineering and engineering technology colleges that make significant, measurable progress in increasing the diversity, inclusion, and degree attainment outcomes of their programs. The School of Engineering and Technology at IUPUI was among a small number of engineering colleges/schools nationwide to be recognized as an exemplar among the inaugural set of ADRP selectees.
- Strived to improve the climate for faculty, staff, and students. Per the 2014 and 2018 IUPUI Climate Surveys, School of Engineering and Technology faculty were more likely than faculty from other academic units on campus to speak up for what they think and were less likely to agree that there was tension around diversity issues. Moreover, the 2014 survey indicated that faculty and staff from the School of Engineering and Technology were more likely to self-identify as LGBTQ+ than the general faculty and staff population at IUPUI.
- Supported recognition and reward of faculty scholarship in DEI. Supported pathway for faculty to apply for P&T via an "integrated excellence" case for scholarship in DEI via campus and School guidelines (adopted S22).
- Increased diversity among tenure-track/tenured faculty hires. Made progress to reach parity within the School in several job groups and classifications per the Office of Equal Opportunity (OEO) *Incumbency to Availability Analysis* with no underutilization in the tenured/tenure-track and staff (professional, clerical, and technical) job categories per OEO's 2021 report.
- Supported Departmental Enhancement Projects funded in 2021-2022 by the NSF ADVANCE grant titled: *"EPIC: Evidence-Informed Promotion of Inclusive Climate,"* with the goal of improving the climate for women and women of color on the tenure-track, as well as increasing the School's readiness to hire women and retain them. Outcomes included an active seminar series and other diversity exploration activities for School leaders.
- Formed a partnership with NXG Youth Motorsports in 2021, which is dedicated to using motorsports to inspire, motivate, and prepare 11- to 15-year-old underrepresented urban girls and boys, particularly African Americans, for opportunities in motorsports and foundational life skills. E&T provides laddered scholarships for NXG students who go on to pursue any academic program in E&T. Increased DEI support through philanthropy and internal funds for other pipeline programs, including the Minority Engineering Advancement Program (MEAP) and Preparing Outstanding Women for Engineering Roles (POWER).
- Developed a highly competitive counter-offer/proactive retention fund that resulted in several salary increases outside of the yearly merit raise pool, including raises of over 30%, to retain highly productive faculty members.
- Established a staff bonus plan that resulted in total awards of $25K over a fiscal year. Bonuses were outside of the yearly merit raise pool and limited to no more than 10% of staff headcount.
- Encouraged faculty to apply for programs offered by the Fulbright Scholar Program resulting in Fulbright Visiting Scholars at universities such as the University of Lancaster, the University of Malta, Tula University of Economics and Informatics, Vellore Institute of Technology, and the Wyzsza Szkola Komunikacji i Zarzdzania (WSKiZ-UCM) in Poznań, Poland.
- Encouraged the development of and financially supported a School of Engineering and Technology *Mentoring Academy* for faculty focused on teaching excellence and the scholarship of teaching and learning in collaboration with the Office of Academic Affairs.

- Provided School of Engineering and Technology matching funds to support curriculum enhancement grants, which provide faculty with technical and instructional support, release time, and funds to implement projects designed to enhance student learning and success.
- Worked closely with the Office of International Affairs and the Multicultural Success Center encouraging the School's programs to consider the inclusion of curriculum that will help students attain cultural competence, and knowledge of contemporary professional, societal, and global issues.
- Provided School of Engineering and Technology financial support for the IUPUI Cultural Dinners annual series, including the Martin Luther King Jr., Cesar Chavez, Harvey Milk, and Asian Heritage dinners, which honor civic leaders within underrepresented communities and highlights students within the IUPUI community for their accomplishments and leadership as members of these communities.
- Provided School of Engineering and Technology matching funds to support Intergroup Dialogue (IGD) curriculum enhancement grants for exploring ways in which IGD pedagogy, principles, and practices can be incorporated into curriculum, as well as research and community engagement activities. Effort contributed to the first undergraduate interdisciplinary certificate at IUPUI to promote an inclusive campus culture.
- Provided School of Engineering and Technology matching funds to support the IUPUI Welcoming Campus Initiative. For example, supported department workshops focused on Gender Equity and Inclusion. The workshops were aimed to help faculty and staff identify the various forms of bias that contribute to a chilly climate for women in STEM disciplines and to take steps to improve the overall climate.
- Provided School of Engineering and Technology matching funds to support culturally aware mentorship training for faculty to examine their own racial and ethnic identity and use insights from these self-reflections to identify their personal assumptions and worldviews that may operate in their research mentoring relationships.

***Graduate Programs and Research***

- Increased departmental base budget support for graduate assistantships, and created other incentives, including establishing an out-of-state tuition remission policy for fully funded graduate assistants, to enable the School to set an all-time record in graduate student enrollment (n=500, F18), an increase of over 100% since F10. Set an additional record for PhD student enrollment (n=114, F22), an increase of over 850% since F10.
- Led transition of all Purdue Ph.D. engineering programs offered in Indianapolis from Purdue, W. Lafayette departmental oversight to School oversight (and approved by the Indiana Commission on Higher Education for award in Indianapolis, as is the case for all B.S. and M.S. degrees).
- Established innovative Ph.D. programs in music technology in 2016 and music therapy in 2022 offered by the School of Engineering and Technology and granted by Indiana University and approved by the Indiana Commission on Higher Education for award in Indianapolis.
- Established the M.S. in cybersecurity and trusted systems program offered by the School of Engineering and Technology and granted by Purdue University. The program was approved by the Indiana Commission on Higher Education in 2019 for award in Indianapolis.
- Increased strategic collaborations between the School of Engineering and Technology and the IU School of Medicine and School of Dentistry, respectively, on the IUPUI campus, including immersive clinical and research experiences for undergraduate and graduate students. Increased NIH and NSF awards to support a myriad of opportunities and experiences for undergraduate and graduate students pursuing careers in health and life sciences and engineering. Also, expanded collaboration with Marian University's College of Osteopathic Medicine.
- Established a MOU with the Center for Musculoskeletal Health, IU School of Medicine, for biomedical and mechanical engineering faculty members to supervise students pursuing the Ph.D. in Musculoskeletal Health. Established a collaboration with the Center for Regenerative Medicine and Engineering, IU School of Medicine, for engineering faculty to supervise students pursuing the Ph.D. in Regenerative Medicine and Technologies.

- Enhanced the resources and incentives to enable faculty members to increase research efforts, which resulted in the School of Engineering and Technology receiving more extramural awards in FY 12 than in any other prior year of the School's history. Set an all-time record in FY 21 in terms of the amount of research funding requested via extramural proposals. Faculty research productivity has become more diffuse, that is, less concentrated among a few faculty members in E&T over the last 5 years establishing a solid foundation for sustained productivity.
- Enhanced recognition of invention disclosures and patents resulting in a fiscal year record number of disclosures (n=69) and patent applications (n=54), an increase of 246% and 216%, respectively, as compared to FY 10. The School continues to be one of the leading units within all of Indiana University for invention disclosures and patents.
- Supported annual NIH and NSF workshops for junior faculty within the School of Engineering and Technology. Junior faculty were successful in obtaining NSF CAREER, NIH/R01, and NIH/K01 grants.
- Supported School of Engineering and Technology faculty as major contributors to Indiana University Research and Technology Corporation (IURTC) Spin-Up initiative resulting in 10 start-up companies over 8 years. Created companies included YC Bioelectric (2012), Refer2Input (2013), Analog Computing Solutions (2014), Emission System Solution (2016), Green Fortress Engineering (2016), and Multiscale Integrated Technology Solutions (2019) some of which have subsequently received Small Business Technology Transfer grants from federal sponsors such as the NIH and NSF. Over $1.4M was contracted to the School of Engineering and Technology for research sponsored by start-up companies established by faculty from 2014 through 2018.
- Increased research collaboration between engineering and music and arts technology faculty. A representative outcome was the invention disclosure/patent application for a gesture-operated modulation device for the vibraphone.
- Invested discretionary School of Engineering and Technology funds in collaboration with the Indiana University School of Informatics and the Indiana University School of Liberal Arts to help support the IUPUI Arts and Humanities Institute. This Institute provides funding opportunities for Arts and Humanities scholars, including music and arts technology faculty members, to advance their research, scholarship, and creative activities.
- Established a research incentive program to reward faculty members with incentive pay up to 20% of the amount of base salary 'recovered' from extramural funding sources.
- Established a specialized offering of the M.S. in electrical and computer engineering for the Naval Surface Warfare Center–Crane in electronic warfare through face-to-face, online, and hybrid delivery of instruction. Inaugural cohort of students graduated in 2016 with the program starting its 3rd cohort in 2022.
- Funded space renovations to establish the Industrial Energy Assessment Center (IAC) in the School of Engineering and Technology. The IAC received $1.3M in 2011 via a highly competitive U.S. Department of Energy (DoE) grant and renewed funding from DoE for about $1.5M and $1.75M in 2016 and 2021, respectively.
- Received notification in 2019 that the Industrial Assessment Center (IAC) received the *Center of Excellence Award* from DoE, awarded to one energy assessment center funded by DoE in 2019 (31 DoE centers were funded throughout the US) to recognize outstanding contributions to industrial energy efficiency. The IAC is the School's featured community engagement center, providing energy assessments and recommendations to many small- to mid-size businesses, including minority owned enterprises, in Indiana saving over $20M to date.
- Provided seed-grants, facilities renovation, and substantial funding for off-campus, leased space for the Transportation and Autonomous Systems Institute (TASI) within the School of Engineering and Technology. TASI received an initial award in FY 11 from the Toyota Collaborative Safety Research Center to expand its research. TASI received the largest award (~$5M over 5 years) of all the partner institutions selected by Toyota in 2011. TASI received continued funding from Toyota with cumulative awards of about $11M since 2011. Additional sponsors of TASI research include Aptiv, Delphi, Ford, BMW, Indiana Department of Transportation, and the U.S. Department of Transportation.

***Undergraduate Programs and Facilities Development***

- Renegotiated (in 2013, 2019, and 2022) with Butler University the financial arrangement for the engineering dual degree program to ensure its continuation. This highly successful partnership seamlessly integrates engineering with liberal arts degree programs and allows residence at Butler for the duration of the program, which has grown to approximately 180 students per year pursing the program. Students earn both a Purdue University engineering degree at IUPUI and a Butler University liberal arts degree in 5 years.
- Implemented the engineering dual degree program with the Atlanta University Center Consortium (AUCC). Students earn both a Purdue University engineering degree at IUPUI and a liberal arts degree from Clark Atlanta University, Morehouse College, or Spelman College in 5 years. Approximately 25 students have participated in the program since 2010, including the most outstanding AUCC student award recipient on multiple occasions.
- Funded a pilot program starting in F17 to embed IP/patent law content within selective, upper-division engineering design courses, in collaboration with the IU McKinney School of Law at IUPUI. Expanded to a permanent certificate offering within undergraduate engineering curricula starting F19. Some students participating in the pilot program have subsequently passed the patent bar examination and established careers as patent agents.
- Established an engineering dual degree program with Marian University in 2012. Over 100 students have been enrolled in this program since inception.
- Established an engineering dual degree program with the University of Indianapolis in 2014. Over 50 students have been enrolled in this program since inception.
- Continued a collaborative engineering program with Franklin College. Over 25 students have been enrolled in this program since inception.
- Expanded in 2012, in collaboration with the Vice Chancellor and Dean of the IUPUI-Columbus extension campus (IUPUC), the venue of delivery for the B.S. in mechanical engineering program to Columbus, Indiana. The program allows students to earn the Purdue University B.S. in mechanical engineering awarded by IUPUI through face-to-face, hybrid, and online delivery of instruction without leaving the Columbus campus. State-of-the-art teaching labs at IUPUC were established in part via support from corporations such as Cummins, with headquarters in Columbus.
- Established the B.S. degree in Artificial Intelligence offered by the School of Engineering and Technology (in partnership with the School of Science) and granted by Purdue University. The program was approved by the Indiana Commission on Higher Education in 2021.
- Established the B.S. degree in Cybersecurity offered by the School of Engineering and Technology and granted by Purdue University. The program was approved by the Indiana Commission on Higher Education in 2021.
- Established the B.S. degree in Music Therapy offered by the School of Engineering and Technology and granted by Indiana University. The program was approved by the Indiana Commission on Higher Education in 2018 and by the American Music Therapy Association.
- Established the B.S. degree in Technical Communication in 2013 granted by Purdue University. The technical communication B.S. degree is unique to the IUPUI campus and responds to the needs of STEM employers by embedding the rigor of the project-based engineering and technology programs into the curriculum.
- Funded over $3M in renovations since F10 to enhance informal student learning spaces throughout the School.
- Established numerous program articulation agreements with Ivy Tech Community College and Vincennes University in Indiana.
- Graduated the first student to receive the B.S. in Motorsports Engineering in 2012 granted by Purdue University. The motorsports engineering degree is unique to the IUPUI campus. To date, graduates have placement rates greater than 90% in the motorsports, automotive, and aerospace industries. The vast majority of *IndyCar* teams employ graduates and/or interns of the program.

- Secured off-campus space and funding for long-term leases for laboratories to support expanded activities by the motorsports engineering program.
- Established the School of Engineering and Technology Honors Program to complement programs coordinated through the IUPUI Honors College, including $2K in set-aside funding for each Honors student to study abroad.
- Offered new B.S. degree in Energy Engineering starting F11 granted by Purdue University. The energy engineering degree is unique to the IUPUI campus and leverages the affiliation with the Richard G. Lugar Center for Renewable Energy.
- Co-led, with the dean of Science at IUPUI, the planning for a new Science and Engineering Laboratory Building, which opened in 2014. The building was financed in part from proceeds from the acquisition of Angel Learning by Blackboard Inc. for approximately $100M, without any State of Indiana financial support. Angel Learning course management software was developed by faculty and students from the School of Engineering and Technology at IUPUI and was the most successful translation of research to a start-up company in the history of Indiana University.
- Co-led, with the deans of the Schools of Science and Informatics and Computing at IUPUI, planning for a second new building for Science and Engineering. Revenue from enrollment and research growth within the respective schools, without any State of Indiana financial support, funded the project. Construction of the new building (Innovation Hall) was completed in F20 and includes a class-100 cleanroom to support research in nano-medicine and nano-energy applications, and other state-of-the-art teaching and research facilities, including a makerspace.

***International Initiatives***

- Increased annual international student enrollment in the School of Engineering and Technology by approximately 110% over an 8-year period, setting an all-time record in the F18 semester (n=576), with enrollment balanced 50/50 at the undergraduate and graduate levels, respectively.
- Visited Doha, Qatar in March 2019 given an invitation from the Ministry of Education and Higher Education, State of Qatar, for the School of Engineering and Technology to offer selected B.S. engineering technology programs on-site in Qatar. Offerings would complement current programs by Texas A&M (engineering), Northwestern (journalism and communication), and Carnegie Mellon (computer science and business). Submitted a detailed proposal, which is under review by the Ministry but delayed due to COVID-19.
- Visited Saudi Arabia in 2018 to broaden and deepen productive relationships including meetings with the Ministry of Education, U.S. Embassy/Education USA, King Saud University, and Ministry of Health in Riyadh, as well as King Fahd University of Petroleum and Minerals and Saudi Aramco in Dhahran. The School of Engineering and Technology has numerous students enrolled from Saudi Arabia (n=~100, F18) and extensive alumni. The Saudi Student Club at IUPUI was ranked number one among such clubs in the U.S. by the Saudi Arabian Cultural Mission (SACM).
- Visited Mexico in 2018 including meetings with the National Autonomous University of Mexico (UNAM), Ministry of Health for CDMX, the U.S. Embassy in Mexico City, Consejo Nacional de Ciencia y Tecnología (CONACYT), Fundación Mexicana para la Educación, la Tecnología y la Ciencia (FUNED), the Monterrey Institute of Technology and Higher Education, and Grupo Rotoplas SAB de CV to pursue academic and research collaboration and support in areas of mutual interest and capability. Follow up actions included utilization of the new Indiana University Gateway facility on the campus of UNAM in Mexico City. Outcomes to date include receiving several fully sponsored students from Mexico to participate in summer research programs at IUPUI, as well as sponsored capstone projects by Grupo Rotoplas SAB de CV.
- Established '2+2' and '3+2' programs in electrical engineering and mechanical engineering with Sun Yat-sen University (SYSU), one of the most prominent universities in China. Approximately 40 students from SYSU have graduated from the '2+2' cohort program since 2014. Other non-cohort-based students from SYSU have matriculated to IUPUI for undergraduate degree completion. Served on the IUPUI/SYSU cooperative development executive committee along with deans from the IU School of Medicine, IU School of Liberal Arts, and the IUPUI Executive Vice Chancellor. Made visits to SYSU in 2012, 2013, 2014, and 2019 to broaden and deepen academic collaboration between the institutions.

- Executed a collaboration agreement during a visit to Beijing, China in 2016 between Tsinghua University, widely regarded as the 'MIT of China,' and the School of Engineering and Technology. The agreement formalized the collaboration between the Department of Automotive Engineering at Tsinghua and the Transportation Active Safety Institute (TASI) at IUPUI in the areas of intelligent and connected vehicles and transportation electrification in coordination with Tsinghua Suzhou Automotive Research Institute. Related activity resulted in licensing of automotive technology created by TASI, in collaboration with Toyota, by a Chinese start-up company in 2019.
- Visited Chongqing University of Technology (CQUT), Guangzhou University (GU), Beijing University of Technology (BJUT), and Hebei GEO University in China in F19. An outcome of the visit is cooperative BS/MS programs with CQUT, GU, and BJUT in which the BS degree is granted by the partner institution and the MS granted by the School of Engineering and Technology at IUPUI in an accelerated format.
- Renewed student exchange agreement with Polytech Marseille, Aix-Marseille Université, France in 2017. Receive a cohort of exchange students each year from Polytech Marseille, while the partner institution hosts summer study abroad students from the School of Engineering and Technology.
- Visited several higher education institutions and governing bodies in Malaysia, including the Ministry of Higher Education, MARA HQ, and Universiti Tenaga Nasional (UNITEN) during 2012, 2015, and 2017. Subsequently received 12 rising sophomores in electrical engineering in 2015 from UNITEN and fully funded by the Tenaga Nasional Foundation. Continue to receive approximately 12 students per year from UNITEN via a '2+2' arrangement for the foreseeable future and additional students from other campuses in Malaysia, with the vast majority receiving full sponsorship for tuition and on-campus housing from Malaysian institutions. Executed a broad collaboration agreement with the Universiti Teknikal Malaysia Melaka (UTeM) in 2017 to pursue academic and research collaboration in areas of mutual interest and capability. Executed a detailed articulation agreement with UTeM for several academic programs in 2019.
- Placed numerous undergraduate students in engineering programs within the School of Engineering and Technology via the Brazil Scientific Mobility Program.
- Visited the University of Tehran (UT) in 2015. UT is regarded by many as the most prominent university in Iran. Executed a broad academic partnership agreement, including '2+2' and '3+2' programs for undergraduate student cohorts and '1+1.5' programs for graduate student cohorts. Completed a prior agreement with UT, which was one of only two of its kind in the entire U.S. approved by the U.S. Department of Treasury, producing 45 B.S. and 15 M.S. graduates, with more than 45% of the graduates being women.
- Established an undergraduate visitors' program with Symbiosis Institute of Technology (SIT), Pune, India in 2014 and Vellore Institute of Technology (VIT), Vellore, India in 2019 for which SIT and VIT students attend IUPUI for up to one year at the out-of-state tuition rate. Received approximately 30 students to date, some of which have returned to pursue graduate studies.
- Extended exchange arrangements with the University of Information Technology and Management (UITM) in Rzeszow, Poland and the Wyzsza Szkola Komunikacji i Zarzdzania (WSKiZ-UCM) in Poznań, Poland to provide 1 fully funded graduate assistantship for well-qualified students from UITM and WSKiZ-UCM, respectively. Both partner institutions co-host study abroad students and faculty from the School of Engineering and Technology's computer graphics technology program on an annual basis.
- Established in 2012 an undergraduate articulation arrangement for undergraduate programs in electrical engineering and mechanical engineering with the Arab Academy for Science, Technology and Maritime Transport. Also, placed undergraduate students in engineering programs via the U.S.-Egypt Higher Education Initiative Public University Scholarships program.

***Accreditation***

- Oversaw the self-study preparation and on-site review of 2 B.S. Computing Accreditation Commission (CAC) of ABET and 6 B.S. Engineering Accreditation Commission (EAC) of ABET programs in F22.
- Oversaw the self-study preparation and review of the B.S. degree program in interior design technology in F20. Program received continued accreditation from the Council for Interior Design Accreditation (CIDA) in June 2021.
- Oversaw the self-study preparation and on-site review of 4 B.S. Engineering Technology Accreditation Commission (ETAC) of ABET programs in F19. Received notification in August 2020 that all engineering technology programs received continued accreditation.
- Oversaw the self-study preparation and on-site review of the B.S. in Construction Management program by the American Council for Construction Education (ACCE). Received notification in August 2019 from ACCE that the B.S. in Construction Management program received inaugural accreditation. Program transitioned from ETAC of ABET to ACCE accreditation.
- Oversaw the self-study preparation and on-site review of the Department of Music and Arts Technology within the School of Engineering and Technology by the National Association of Schools of Music (NASM) in spring 2017. The department and all of its programs received continued accreditation from the National Association of Schools of Music and received notice of NASM Full Membership in 2018.
- Oversaw the self-study preparation and on-site review of 2 Computing Accreditation Commission (CAC) of ABET programs in F16. Received notification in August 2017 that the B.S. in computer and information technology and the B.S. in computer graphics technology received continued accreditation. These are the only CAC of ABET accredited computing programs within the entire Indiana University system.
- Oversaw the self-study preparation and on-site review of 6 Engineering Accreditation Commission (EAC) of ABET programs in F16. Received notification in August 2017 that the new B.S. programs in energy engineering and motorsports engineering received inaugural accreditation. All other engineering programs received continued accreditation.
- Oversaw the self-study preparation and on-site review of 5 B.S. Engineering Technology Accreditation Commission (ETAC) of ABET programs in F13. Received notification in August 2014 that the B.S. degree program in healthcare engineering technology management received inaugural accreditation. All other engineering technology programs received continued accreditation.
- Received the Center of Academic Excellence in Cyber Defense (CAE-CD) designation in 2014 valid through 2021. Received Center of Academic Excellence in Cyber Defense Research designation renewal in 2015 valid through 2021. Information Assurance and Cybersecurity are key focus areas of the computer and information technology undergraduate and graduate programs within the School of Engineering and Technology and support these university-wide designations.
- Received notification in July 2014 that the B.S. degree program in interior design technology received continued accreditation from the Council for Interior Design Accreditation (CIDA).
- Received notification in August 2012 that the B.S. degree program in computer and information technology and the B.S. degree program in computer graphics technology, respectively, received continued accreditation from the Computing Accreditation Commission (CAC) of ABET.
- Received notification in August 2011 that the B.S. degree program in biomedical engineering received inaugural accreditation from the EAC of ABET. All other eligible engineering programs received continued accreditation from the EAC of ABET.

## Chair, Department of Electrical and Computer Engineering, U. Memphis (2004 – 2010)

***Responsibilities***

- Responsible for 11 tenured/tenure-track faculty members, 2 instructors, 2 research assistant professors, 4 adjunct faculty members, 2 staff members, 210 undergraduate students, 60 graduate students and associated budgets (including research budgets, gift accounts, indirect cost recovery accounts, and department operations).
- Responsible for 6 degree programs: B.S. in electrical engineering, B.S. in computer engineering, M.S. in electrical and computer engineering (electrical engineering concentration), M.S. in electrical and computer engineering (computer engineering concentration), Ph.D. in engineering (electrical engineering concentration) and Ph.D. in engineering (computer engineering concentration).

***Research and Graduate Programs***

- Enhanced the culture, support, resources, and collaboration to enable faculty members to significantly grow research efforts, which resulted in the department receiving more external awards in calendar year 2005 ($ 2,209,000) than in any other prior year of the department's history. The department exceeded this level of external support in calendar year 2006 with $2,835,433 in new awards, given only 9 faculty members who actively pursued a research agenda. The department averaged $1,676,214 per year in research expenditures over 4 fiscal years (2006-2009), which was the highest average for any department within the Herff College of Engineering.
- Facilitated the department's participation in the Systems Testing Excellence Program, an interdisciplinary research initiative at the FedEx Institute of Technology funded in part by Cook Systems International Inc.
- Co-led the establishment of the Center for Advanced Sensors funded via a cooperative agreement with the U.S. Army Research Laboratory to create a multidisciplinary research center at U. of Memphis focused on sensor research issues of primary concern to the Department of Defense (DoD). The Center was the catalyst for additional multi-million dollar awards in the sensors area from several labs within the DoD, as well as industrial sponsors.
- Facilitated and managed, as the Interim Director of the Center for Advanced Robotics, faculty participation from departments spanning multiple academic units, including computer science, electrical and computer engineering, mechanical engineering, physics, and psychology in the interdisciplinary robotics research initiative at the FedEx Institute of Technology funded in part by Federal Express Corporation. Service as Interim Director was requested by campus executive administration to provide leadership for the team during a transitional period.

***New Program and Facilities Development***

- Prepared and submitted a proposal for an M.S. concentration in computer engineering, which was approved by the Tennessee Board of Regents in July 2007.
- Prepared and submitted a proposal for a Ph.D. concentration in computer engineering, which was approved by the Tennessee Board of Regents in August 2005. Served as the primary advisor for the first Ph.D. graduate of this new program in December 2005.
- Facilitated a study abroad opportunity for electrical engineering students with Ulm University in Germany.

***Faculty and Staff Appointments and Advancement***

- Led effort to successfully recruit and hire 3 tenure-track faculty members (including 1 woman) and 2 research positions as department chair. Assembled highly competitive start-up packages for all new tenure-track hires. Two of the new hires were subsequently awarded NSF CAREER grants and the other hire also obtained substantial federal support for research. All of the hires were effective as both teachers and researchers.
- Led effort to revise departmental promotion and tenure guidelines to be consistent with the mission of a doctoral research university per the Carnegie Foundation R1 classification—very high research activity.
- Led effort to revise the Herff College of Engineering tenure, promotion, and re-appointment timetable under the dean's direction.

- Recruited and hired experienced adjunct instructors as needed to teach courses 'bought out' by faculty members with externally funded research.
- Recruited and hired a senior faculty member from Carnegie Mellon University as a Visiting Professor of Electrical and Computer Engineering, co-director of the Workforce Advanced Distributed Learning Co-Laboratory and technical director of the Learning Systems Architecture Laboratory, an interdisciplinary research unit within the FedEx Institute of Technology at U. of Memphis.

***Accreditation***

- Led the department through a successful external review of all graduate programs in S10.
- Led the department (BSEE and BSCpE programs) through a successful EAC of ABET review in F09.
- Received notification from EAC of ABET in September 2004 that the B.S. in electrical engineering and B.S. in computer engineering programs received accreditation.
- Facilitated the department's participation in a collaborative effort with computer science from the College of Arts and Sciences and management information systems from the Fogelman College of Business that resulted in the U. of Memphis receiving the Center of Excellence in Information Assurance Education designation.

## Coordinator, Computer Engineering, U. of Memphis (1999 – 2004)

***Responsibilities and Accomplishments***

- Oversaw the computer engineering programs and associated curriculum, resources, and scheduling issues.
- Chaired the computer science and engineering liaison committee, consisting of faculty members from the departments of computer science and electrical engineering, to work through curricular and assessment issues and areas of responsibility for the computer engineering program.
- Worked with faculty members from the biomedical engineering department to establish a 5-year combined electrical or computer engineering B.S./biomedical engineering M.S. accelerated program.
- Proposed and implemented the departmental Honors Program in computer engineering.
- Led the departmental due process response to the draft statement resulting from the 2003 EAC of ABET visit of the B.S. in computer engineering program.
- Prepared several sections of the EAC of ABET self-study document for the B.S. in computer engineering program's inaugural review in 2003.
- Developed the curriculum and several sections of the B.S. in computer engineering proposal, which was approved by the Tennessee Board of Regents and Tennessee Higher Education Commission in 2000.
- Led efforts, as search committee chair, to successfully hire 4 computer engineering faculty members, including 1 woman and 1 African American. Provided mentoring for all hires. All hires obtained externally funded research support and 2 were awarded NSF CAREER grants, while also providing effective instruction.

## GRANTS/CONTRACTS **(excludes matching funds, cost-share, consulting, and non-University contracts)**

**TOTALS:** Extramural Support (Funded in Dollars) PI: $ 5,012,159; Co-PI: $ 10,387,499; Senior Personnel: $ 3,105,656;
Extramural Support (Funded In-Kind) PI: $ 457,135; Co-PI: $ 539,049,912;
Internal Support (Funded in Dollars) PI: $ 120,000; Co-PI: $ 70,000

| EXTERNAL (Funded in Dollars) | AGENCY/SOURCE | AMOUNT* | PERIOD |
|---|---|---|---|
| "Planning: Center for Equity in Engineering," (R. Nalim, PI; K. Alfrey, D. Russomanno, C. Renguette, and C. Nicholas, Co-PIs) | National Science Foundation | $ 99,999 | 2022 – 2023 |
| "Building the Next Generation of Cybersecurity Engineering Workforces Scholarship Program," (F. Li, PI; D. Russomanno, B. King, and X. Zou, Co-PIs) | National Science Foundation | $ 3,729,000 | 2022 – 2027 |
| "Project EPIC at IUPUI: Evidence-Informed Promotion of Inclusive Climate," (K. Johnson, PI; G. Gibau, et al., Co-PIs; D. Russomanno, et al., Senior Personnel) | National Science Foundation | $ 999,999 | 2019 – 2022 |
| "Collaborative Research: Urban STEM Collaboratory," (**D. Russomanno, PI**; K. Alfrey, T. Talbert-Hatch, C. Nicholas, and J. Watt, Co-PIs) | National Science Foundation (multi-institutional project with UC Denver and U. Memphis with a total budget of $5M) | $ 1,701,277 | 2018 – 2023 |
| "Advanced Dynamic Vehicle Simulation," (P. Hylton, PI; D. Russomanno and T. Talbert-Hatch, Co-PIs) | Indiana Economic Development Corporation | $ 1,150,000 | 2013 – 2015 |
| "CLEAR Scholars in Engineering," (K. Alfrey, PI; D. Russomanno, S. Hundley, T. Talbert-Hatch and K. Purvis, Co-PIs) | National Science Foundation | $ 600,000 | 2012 – 2018 |
| "Sensor Ontologies and Profiling Sensors for Wide-Area Surveillance," (**D. Russomanno, PI**) | U.S. Army Research Office/U. of Memphis (sub) | $ 267,000 | 2010 – 2012 |
| "Intelligent Network-Centric Sensors Development Program," (**D. Russomanno, PI**; C. Halford, E. Jacobs and A. Robinson, Co-PIs) | U.S. Army Research Lab/ U.S. Army Research Office | $ 1,115,446 | 2010 – 2011 |
| "Profiling Sensor Classification Algorithm Analysis and Silhouette Viewer Development," (**D. Russomanno, PI** and C. Halford, Co-PI) | U.S. Army Research Lab/ U.S. Army Research Office | $ 150,000 | 2009 – 2010 |
| "Ontology and Rule Base Development for Common IED Exploitation Target Set Test and Evaluation," (**D. Russomanno, PI**) | ARES Systems Group Alexandria, Virginia | $ 267,263 | 2008 – 2010 |
| "Electro Optics Error Budget Model and Profiling Sensor Signatures," (A. Robinson, PI; D. Russomanno and C. Halford, Co-PIs) | U.S. Army Research Lab/ U.S. Army Research Office | $ 75,000 | 2008 |
| "MemphiSTEP: A STEM Talent Expansion Program at the University of Memphis," (D. Franceschetti, PI; D. Russomanno, J. Haddock, S. Ivey and R. Hairston, Co-PIs) | National Science Foundation | $ 2,000,000 | 2008 – 2013 |
| "Center for Advanced Sensors: Year 3," (C. Halford, PI; D. Russomanno, S. Griffin, A. Robinson, E. Jacobs and E. Perry Co-PIs) | U.S. Army Research Lab/ U.S. Army Research Office | $ 800,000 | 2007 – 2008 |

* Russomanno joined the Purdue School of Engineering and Technology in 2010 as dean. He transferred his responsibility as PI of the 2010-2011 ARL/ARO grant at the U. of Memphis to E. Jacobs for the remaining period of performance for this grant. Amounts listed from industry sponsors such as ARES Systems Group reflect the cumulative award during the period. In some instances, a given total includes funding amendments made during the period of performance by the sponsor.

| EXTERNAL (Funded in Dollars) (continued) | AGENCY/SOURCE | AMOUNT | PERIOD |
|---|---|---|---|
| "Science, Technology, Engineering and Mathematics Scholarship Program: Building Upon a Legacy of Success," (**D. Russomanno, PI**; K. Smith, R. Hairston, Y. Wang and S. Ivey, Co-PIs) | National Science Foundation | $ 499,627 | 2006 – 2010 |
| "Center for Advanced Sensors: Yr 2," (C. Halford, PI; D. Russomanno, S. Griffin, A. Robinson and E. Perry Co-PIs) | U.S. Army Research Lab/ U.S. Army Research Office | $ 800,000 | 2006 – 2007 |
| "Center for Advanced Sensors Yr 1 Supp" (C. Halford, PI; D. Russomanno, S. Griffin and A. Robinson, Co-PIs) | U.S. Army Research Lab/ U.S. Army Research Office | $ 50,000 | 2005 – 2006 |
| "Center for Advanced Sensors: Yr 1" (C. Halford, PI; D. Russomanno and S. Griffin, Co-PIs) | U.S. Army Research Lab/ U.S. Army Research Office | $ 1,200,000 | 2005 – 2006 |
| "Data Visualization: An Interdisciplinary Approach to Reducing the Cognitive Load When Extracting Meaning from Large Data Sets," (**D. Russomanno, PI**; D. Franceschetti, A. de Jongh Curry and A. Phillips-Lambert, Co-PIs) | National Science Foundation | $ 99,995 | 2004 – 2006 |
| "A Scholarship Program for Computer Science, Engineering and Mathematics Students: Building Upon an Industry-Academia Partnership Approach," (**D. Russomanno, PI**; P. Palazolo, K. Smith, R. Hairston and A. Phillips-Lambert, Co-PIs) | National Science Foundation | $ 343,750 | 2004 – 2008 |
| "Sensor Fusion Research and Development," (**D. Russomanno, PI**) | U.S. Army Redstone Technical Test Center ERC, Inc. (sub) | $ 50,000 | 2004 |
| "Tactical Imaging Sensor Ontology Research and Development," (**D. Russomanno, PI**) | U.S. Army Night Vision & Electronic Sensors Directorate/ EOIR Tech., Inc. (sub) | $ 15,768 | 2004 |
| "A Scholarship Program for Computer Science, Engineering and Mathematics Students: An Industry-Academia Partnership Approach," (**D. Russomanno, PI**; P. Palazolo, O. Nasraoui, et al., Co-PIs) | National Science Foundation | $ 171,869 | 2002 – 2004 |
| "SENCER 2002 Summer Institute Travel Support" (J. Haddock, PI; D. Russomanno et al., Co-PIs) | Association of American Colleges and Universities | $ 3,500 | 2002 |
| "Electrical-Distribution System Graphics Extraction Tools Research & Development," (**D. Russomanno, PI**) | Memphis Light, Gas and Water | $ 5,089 | 2000 |
| "Research Experience for Undergraduates in Bioengineering," (R. Warder, PI; F. Claydon et al., Co-PIs, D. Russomanno, Senior Personnel) | National Science Foundation | $ 380,342 | 2000 – 2003 |
| "U. of Memphis Participation in GEAR-UP," (D. Franceschetti, PI; D. Russomanno, et al., Senior Personnel) | U.S. Department of Education/ Memphis City Schools (sub) | $ 969,319 | 2000 – 2004 |
| "Automatic Data Migration to the Facilities Rule-Based Application Model Management Environment Research and Development," (**D. Russomanno, PI**) | Intergraph Public Safety/ Intergraph Corporation Huntsville, Alabama | $ 119,542 | 1998 – 2000 |
| "Software Engineering for Data Migration and Conversion Research and Development," (**D. Russomanno, PI**) | Apex Data Services Reston, Virginia | $ 19,268 | 1998 |

| EXTERNAL (Funded in Dollars) (continued) | AGENCY/SOURCE | AMOUNT | PERIOD |
|---|---|---|---|
| "Research Experience for Undergraduates in Bioengineering," (R. Warder, PI; F. Claydon et al., Co-PIs, D. Russomanno, Senior Personnel) | National Science Foundation | $ 301,687 | 1997 – 2000 |
| "Mid-South Alliance for Minority Participation," (D. Franceschetti, PI; D. Russomanno, et al., Senior Personnel) | National Science Foundation LeMoyne Owen College (sub) | $ 454,309 | 1996 – 2001 |
| "Intelligent-Data Conversion Research and Development," (**D. Russomanno, PI**) | Apex Data Services Reston, Virginia | $ 6,481 | 1995 |
| "Knowledge-Based Graphics Translation Research and Development," (**D. Russomanno, PI**) | Intergraph Corporation Huntsville, Alabama | $ 146,080 | 1994 – 1997 |
| "Geotechnical Data Interchange Format (GDIF) to Relational Database Translator R & D," (**D. Russomanno, PI**) | Intergraph Corporation Huntsville, Alabama | $ 8,000 | 1994 |
| "Data Migration Research and Development," (**D. Russomanno, PI**) | Intergraph Corporation Huntsville, Alabama | $ 25,704 | 1993 |

| EXTERNAL (Funded In-Kind) | AGENCY/SOURCE | AMOUNT* | PERIOD |
|---|---|---|---|
| "Academic Institutional Software License: PLM Software," (**D. Russomanno** and K. Varahramyan, Joint-PIs) | Siemens PLM Software Inc. Maryland Heights, MO | $538,791,412 | 2014– 2017 |
| "Rational Software Engineering for Educational Development," **(D. Russomanno, PI)** | IBM Software Group Lexington, Massachusetts | $ 230,125 | 2003 |
| "Wind River's Systems' WindLink™ University Partner Program," (K. Iftekharuddin, PI and D. Russomanno, Co-PI) | Wind River Systems Alameda, California | $ 258,500 | 2001 |
| "Hardware and Software to support Data Migration R & D," (**D. Russomanno, PI**) | Intergraph Corporation Huntsville, Alabama | $ 227,010 | 1993–2000 |

| INTERNAL (Funded in Dollars) | AGENCY/SOURCE | AMOUNT | PERIOD |
|---|---|---|---|
| "Broadening Participation in Engineering with a Purdue Center for Equity in Engineering: An IUPUI-Purdue West Lafayette Collaborative Research Planning Initiative," (D. Riley and C. Renguette, joint-PIs; E. Berger, D. Russomanno, R. Nalim, K. Alfrey and C. Nicholas, Co-PIs) | Purdue University, West Lafayette | $ 50,000 | 2023– 2025 |
| "Recognizing Those Who Were Here Before," (S. Rhodes, PI, D. Russomanno et al., Co-PIs/Senior Personnel) | Welcoming Campus Initiative Fund/IUPUI | $ 15,000 | 2017 |
| "Center for Advanced Robotics," (**D. Russomanno,** K. Iftekharuddin, M. Yeasin, S. Franklin, L. McCauley and R. Kozma, PIs) | Federal Express Corporation/FIT Memphis, Tennessee | $ 120,000 | 2007– 2008 |
| "Virtual Computer Organization Laboratory," (K. Iftekharuddin, PI, D. Russomanno, Co-PI) | Technology Access Fee Grant/U. of Memphis | $ 5,000 | 2001– 2002 |

* Retail cost of the software and/or hardware as specified by the sponsors: Siemens PLM Software Inc., IBM Software Group, Wind River Systems, and Intergraph Corporation.

# RESEARCH/SCHOLARSHIP ACTIVITIES

## PUBLICATIONS

***Peer-Reviewed: Journal Articles (J), Book Chapters (B), and Proceedings of Conference Articles (C)***

1. C. Stewart, J. Campbell, T. Chase, M. Darbeheshti, K. Goodman, S. Hashemikamangar, M. Cummings, S. Ivey, D.J. Russomanno and G. Simon (2023, in peer review) "Communicating STEM Identity in the Urban STEM Collaboratory," *International Journal of Science Education Part B. (J)*
2. S. Ivey, J. Campbell, A. Robinson, C. Stewart, D.J. Russomanno, K. Alfrey, J. Watt, M. Darbeheshti, M. Cummings and K. Goodman (2023, in press) "Urban STEM Collaboratory After Two Years: A Multi-Institutional Approach to the Success of Financially Disadvantaged Students," *Journal of STEM Education. (J)*
3. M. Cummings, M. Darbeheshti, S. Ivey, C. Stewart, D.J. Russomanno, D. King, K. Goodman, J. Campbell, T. Altman and M. Jacobson (2022) "Summer Bridge Programming for Incoming First-Year Students at Three Public Urban Research Universities," *Proceedings of the ASEE Annual Conference and Exposition*, 15 pages. *(C)*
4. M. Darbeheshti, M. Cummings, S. Ivey, D.J. Russomanno, M. Jacobson, T. Altman, K. Goodman, K. Alfrey, C. Stewart and J. Watt (2022) "Three Years of the Urban STEM Collaboratory," *Proceedings of the ASEE Annual Conference and Exposition*, 10 pages. *(C)*
5. C. Stewart, M. Darbeheshti, S. Ivey, D.J. Russomanno, M. Cummings, G. Simon, W. Schupbach, M. Jacobson, T. Altman, K. Alfrey and K. Goodman (2021) "An Initial Exploration of Engineering Student Perceptions of COVID's Impact on Connectedness, Learning, and STEM Identity," *Proceedings of the ASEE Annual Conference and Exposition*, 9 pages. *(C)*
6. T. Diemer, M.R. Nalim, A. Piekarzewska, S. Nor and D.J. Russomanno (2017) "The Role of International Administration in a Globally Engaged University," *Proceedings of the Seventh World Engineering Education Forum*, pp. 580-584. *(C)*
7. T. Diemer, M.R. Nalim, A. Piekarzewska and D.J. Russomanno (2017) "From Domestic to International: Pathway to the Globally Engaged University," *Proceedings of AIU-SIU International Conference on the Changing Landscape of Internationalization of Higher Education*, 23 pages. *(C)*
8. A. Windsor, A. Bargagliotti, R. Best, D. Franceschetti, J. Haddock, S. Ivey and D.J. Russomanno (2015) "Increasing Retention in STEM: Results from a STEM Talent Expansion Program at the University of Memphis," *Journal of STEM Education*, Volume 16, Number 2, 41-49. *(J)*
9. P. Hylton and D.J. Russomanno (2014) "Motorsports Engineering: Bridging the Divide between Engineering and Engineering Technology with an Industry-Focused Curriculum," *The Journal of Engineering Technology*, Fall, 28-36. *(J)*
10. F. Canning, A.J. Harrison, O. Khan, J. Qualls, D.J. Russomanno and J. Scheer (2014) "Common IED Exploitation Target Set (CIEDETS)—Update and New Directions," *The ITEA Journal of Test and Evaluation*, Volume 35, Number 3, 266-273. *(J)*
11. K. Alfrey, S. Hundley, T. Talbert-Hatch and D.J. Russomanno (2014) "CLEAR Scholars in Engineering: Promoting Student Success through Cohort-Building and Industrial Engagement," *Proceedings of the ASEE Annual Conference and Exposition*, 8 pages. *(C)*
12. J. Shaik, M. Yeasin and D.J. Russomanno (2013) "Evaluation of Supervised and Unsupervised 3D Star Visualization Algorithms," *International Journal of Data Mining and Bioinformatics*, Volume 8, Number 4, 443-461. *(J)*
13. A. Galvis and D.J. Russomanno (2012) "Advancing Profiling Sensors with a Wireless Approach," *Sensors*, Volume 12, Number 12, 16144-16167. *(J)*
14. C. Kothari, J. Qualls and D.J. Russomanno (2012) "An Ontology-Based Data Fusion Framework for Profiling Sensors," *Proceedings of the IEEE International Conference on Electro/Information Technology*, 6 pages. (Received best conference paper 3rd place award). *(C)*

15. C. Kothari, D.J. Russomanno, R.B. Sartain and R. Frankel (2012) "Toward Data-to-Decision Sensing Environments to Assess Human Intent from Responses to Stimuli," *Proceedings SPIE: Ground/Air Multi-Sensor Interoperability, Integration and Networking for Persistent ISR III*, Volume 8389, 12 pages. *(C)*

16. A. Galvis, D.J. Russomanno and C. Kothari (2012) "A Wireless Near-IR Retro-Reflective Profiling Sensor," *Proceedings SPIE: Ground/Air Multi-Sensor Interoperability, Integration and Networking for Persistent ISR III*, Volume 8389, 8 pages. *(C)*

17. J. Qualls and D.J. Russomanno (2011) "Ontological Problem-Solving Framework for Assigning Sensor Systems and Algorithms to High-Level Missions" *Sensors*, Volume 11, Number 9, 8370-8394. *(J)*

18. C. Kothari, J. Shaik, D.J. Russomanno and M. Yeasin (2011) "3D Star Coordinate-Based Visualization of Relation Clusters from OWL Ontologies," In J. Hal (ed.), *Data Management in Semantic Web*, Nova Science Publishers, Hauppauge, NY, pp. 383-400. *(B)*

19. J. Qualls and D.J. Russomanno (2011) "Ontological Problem-Solving Framework for Dynamically Configuring Sensor Systems and Algorithms," *Sensors*, Volume 11, Number 3, 3177-3204. *(J)*

20. R.K. Reynolds, S. Chari and D.J. Russomanno (2011) "Embedded Real-Time Classifier for Profiling Sensors and Custom Detector Configuration," *Proceedings SPIE: Ground/Air Multi-Sensor Interoperability, Integration and Networking for Persistent ISR*, Volume 8047, pp. 80470E-1-80470E-9. *(C)*

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25. D.J. Russomanno, R. Best, S. Ivey, J. Haddock, D. Franceschetti and R. Hairston (2010) "MemphiSTEP: A STEM Talent Expansion Program at the University of Memphis," *Journal of STEM Education*, Volume 11, Issue 1 & 2, 25-37. *(J)*

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34. J. Qualls and D.J. Russomanno (2009) "Applications of Neural-Based Agents in Computer Game Design," In W.P. dos Santos (ed.), *Evolutionary Computation*, In-Teh, Vukovar, Croatia, 385-404. *(B)*

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42. D.J. Russomanno, A.L. de Jongh Curry, G.S. Atanasova, L.C. Hunt and J.C. Goodwin (2008) "DefibViz: A Visualization Tool for the Assessment of Electrode Parameters on Transthoracic Defibrillation Thresholds," *IEEE Transactions on Information Technology in Biomedicine*, Volume 12, Number 1, 76-86. *(J)*

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44. D.J. Russomanno, S. Chari and C. Halford (2008), "Sparse Detector Imaging Sensor with Two-Class Silhouette Classification," *Sensors*, Volume 8, Number 12, 7996-8015. *(J)*

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51. Q. Qiu and D.J. Russomanno (2008) "Adding Semantics to Learning-Object Web Services," *Proceedings of the International Conference on e-Learning, e-Business, Enterprise Information Systems, and e-Government*, pp. 70-75. *(C)*

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58. D.J. Russomanno (2006) "A Plausible Inference Prototype for the Semantic Web," *Journal of Intelligent Information Systems*, Volume 26, Number 3, 227-246. *(J)*

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65. C. Goodwin and D.J. Russomanno (2006) "An Ontology-Based Sensor Network Prototype Environment," *Proceedings of the Fifth International Conference on Information Processing in Sensor Networks*, pp. 1-2. (Poster presentation). *(C)*

66. A.U. Islam, K. Iftekharuddin and D.J. Russomanno (2006) "Marker Gene Selection Evaluation in Brain Tumor Patients Using Parallel Coordinates," *Proceedings of the International Conference on Bioinformatics and Computational Biology*, pp. 172-173. *(C)*

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71. A. Phillips-Lambert, D. Russomanno and R. Hairston (2005) "Tips, Traps, and Troubleshooting: A Multi-Disciplinary Approach to Mentoring in the Fields of Computer Science, Engineering, Math, and Technology," *Proceedings of the ASEE Annual Conference and Exposition*, CD. 11 pages. *(C)*

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82. D.J. Russomanno and C. Kothari (2003) "An Implementation of Plausible Inference for the Semantic Web," *Proceedings of the International Conference on Information and Knowledge Engineering*, pp. 246-251. *(C)*

83. D.J. Russomanno (2002) "Efficient Legacy Data Utilization," In C.T. Leondes (ed.), *Expert Systems*, Academic Press, San Diego, CA, Volume 4, 1071-1106. *(B)*

84. D.J. Russomanno and K. Hicks (2002) "A Prolog-Based Centroid Algorithm for Isovolume Extraction from Finite Element Torso Simulations," *Computer Methods and Programs in Biomedicine*, Volume 67, Issue 2, 105-114. *(J)*

85. D. Vaughn and D.J. Russomanno (2002) "Knowledge and Ontological Engineering: Directions for the Semantic Web," *Proceedings of the Fourth Annual Memphis Area Engineering and Sciences Conference*, 6 pages. *(C)*

86. C. Kothari, D.J. Russomanno and R. Deaton (2002) "Solution of the Hamiltonian Path Problem: A Sequential Simulation Inspired by DNA Computing Versus a Classical Method," *Proceedings of the Fourth Annual Memphis Area Engineering and Sciences Conference*, 8 pages. *(C)*

87. D.J. Russomanno (2001) "A Set-of-Mappings Approach for Prolog-Based Query of the Relational Data Model," *Computers in Education Journal*, Volume 11, Number 3, 23-29. *(J)*

88. D.J. Russomanno (1999) "A Function-Centered Framework for Reasoning About System Failure at Multiple Levels of Abstraction," *Expert Systems*, Volume 16, Number 3, 148-169. *(J)*

89. D.J. Russomanno and R.D. Bonnell (1999) "A Pedagogical Approach to Database Design via Karnaugh Maps," *IEEE Transactions on Education*, Volume 42, Number 4, 261-270. (Republication of techniques from ASEE CoED'97 with extensions included for functional dependencies. Received the best *IEEE Transactions on Education* paper of the year award presented at FIE'00 sponsored by ASEE/IEEE). *(J)*

90. C. Lu and D.J. Russomanno (1999) "KAT: A Knowledge Acquisition Tool for Acquiring Functional Knowledge based upon the No-Causality-In-Function Principle," *Proceedings of the ACM Symposium on Applied Computing*, pp. 8-13. *(C)*

91. J.A. Replogle, D.J. Russomanno, A.L. de Jongh and F.J. Claydon (1998) "Extracting Isovolumes from Three-Dimensional Torso Geometry Using PROLOG," *IEEE Transactions on Information Technology in Biomedicine*, Volume 2, Number 1, 10-19. *(J)*

92. D.J. Russomanno (1998) "Utility Network Derivation from Legacy Source Data for Feature-Based AM/FM Systems," *International Journal of Geographical Information Science*, Volume 12, Number 5, 445-463. *(J)*

93. D.J. Russomanno and R.D. Bonnell (1997) "A Karnaugh Map Approach for Database Normalization," *Computers in Education Journal*, Volume 7, Number 4, 25-34. *(J)*

94. J.A. Replogle, A.L. de Jongh, D.J. Russomanno and F.J. Claydon (1997) "Defining a Volume of Threshold Value with PROLOG," *Proceedings of IEEE Computers in Cardiology*, pp. 33-36. *(C)*

95. D.J. Russomanno (1996) "A Knowledge-Based Framework for Intelligent-Data Migration," *Expert Systems*, Volume 13, Number 2, 121-132. *(J)*

96. D.J. Russomanno (1996) "An Automated Inference Approach to Network Derivation for AM/FM/GIS Systems," *Proceedings of the 4th ACM International Workshop on Advances in Geographic Information Systems*, pp. 91-98. *(C)*

97. D.J. Russomanno (1995) "The Object-Inferencing Framework: A PROLOG-Based Approach for Extracting Structure from Computer Graphics," *Proceedings of the IEEE Nineteenth Annual International Computer Software and Applications Conference*, pp. 172-177. *(C)*

98. D.J. Russomanno, R.D. Bonnell and J.B. Bowles (1994) "Viewing Computer-Aided Failure Modes and Effects Analysis from an Artificial Intelligence Perspective," *Integrated Computer-Aided Engineering*, Volume 1, Number 3, 209-228. *(J)*

99. D.J. Russomanno and R.D. Bonnell (1994) "No Causality in Function: Building a Function-Centered Knowledge Base," *Proceedings of Intelligent Systems: Third Golden West International Conference*, pp. 665-679. *(C)*

100. D.J. Russomanno, R.D. Bonnell and J.B. Bowles (1993) "Expert Systems for Reliability Evaluation," In K.B. Misra (ed.), *New Trends in Reliability Evaluation*, Elsevier Science Publishers, Amsterdam, The Netherlands, 625-652. *(B)*

101. D.J. Russomanno, R.D. Bonnell and J.B. Bowles (1993) "Functional Reasoning in a Failure Modes and Effects Analysis Expert System," *Proceedings IEEE Annual Reliability and Maintainability Symposium*, pp. 339-347. *(C)*

102. D.J. Russomanno, R.D. Bonnell and J.B. Bowles (1992) "Computer-Aided FMEA: Toward an Artificial Intelligence Approach," *Proceedings AAAI Fifth International Symposium on Artificial Intelligence*, pp. 103-112. *(C)*

103. D.J. Russomanno, R.D. Bonnell and J.B. Bowles (1992) "A Blackboard Model of an Expert System for Failure Modes and Effects Analysis," *Proceedings IEEE Annual Reliability and Maintainability Symposium*, pp. 483-490. *(C)*

***Abstract Reviewed Publications***

104. P. Hylton, D.J. Russomanno and C. Lawrence (2014) "Advanced Dynamic Vehicle Simulation," *Poster Session IUPUI Research Day*, hdl.handle.net/1805/5149.
105. D.J. Russomanno (2007) "Center for Advanced Sensors: Year Three Activities," *Proceedings Fifth Annual Invitational Knowledge Fusion Research Workshop*, U.S. Army Research Laboratory/Morgan State University.
106. D.J. Russomanno (2005) "Center for Advanced Sensors: Year One Activities," *Proceedings Third Annual Invitational Knowledge Fusion Research Workshop*, U.S. Army Research Laboratory/Morgan State University.
107. M. Zettergren, C. Kothari and D.J. Russomanno (2003) "The Engineering of a Semantic Web Application," *Proceedings Fifth Annual Memphis Area Engineering and Sciences Conference*.

***Editorials***

108. D.J. Russomanno (2018) "Institute Makes Walking and Driving Safer, Indy's Economy Stronger," *Inside Indiana Business*, March 1, Inside Edge E-Newsletter (extended version of Feb. 18 *Indianapolis Business Journal* article).
109. D.J. Russomanno (2018) "Autonomous Autos Mean Safer Streets, Stronger Economy," *Indianapolis Business Journal*, February 18, page 11.

**PRESENTATIONS (Selected presentations, excludes conference presentations of proceedings publications)**

1. D.J. Russomanno, *The Future of Engineering Technology Programs*, ASEE Engineering Technology Leadership Institute (panel), Alexandria, VA, October, 2019.
2. D.J. Russomanno, *The Changing Roles and Responsibilities of Faculty after Promotion*, ASEE Conference for Industry and Education Collaboration (deans' panel), Austin, TX, February, 2016.
3. D.J. Russomanno, *Attributes for Success in U.S. Engineering Schools and as a Global Engineer*, The 2nd China-USA Principals Forum for the Internationalization of High School Education, Guangzhou, China, December, 2014.
4. D.J. Russomanno, *Malaysian Legacy at the Purdue School of Engineering and Technology*, Alumni Hi Tea, Kuala Lumpur, Malaysia, December, 2013.
5. D.J. Russomanno, *Keynote Address: Engineering Careers Change the World*, Society of Hispanic Professional Engineers (SHPE) National Conference: Pre-College Symposium, Indianapolis, IN, November, 2013.
6. D.J. Russomanno, *Should Industry Co-Own the Education of Engineers?* ASEE Engineering Technology Leadership Institute (panel), Arlington, VA, October, 2013.
7. D.J. Russomanno, *Welcome Address*, 48th Annual National Association for Workforce Improvement, Indianapolis, IN, May, 2013.
8. D.J. Russomanno, *Keynote Address: IUPUI–The Most Unique Campus in America if not the World*, 2012 IEEE International Conference on Electro/Information Technology, Indianapolis, IN, May, 2012.
9. D.J. Russomanno, *Address to Tsinghua University: Research Focus Areas within the Purdue School of Engineering and Technology*, Beijing, China, March, 2012.
10. D.J. Russomanno, *Address to Beijing Institute of Technology: Academic and Research Programs*, Beijing, China, March, 2012.
11. D.J. Russomanno, *Address to Sun Yat-sen University School of Physics and Engineering: Academic and Research Programs*, Guangzhou, China, March, 2012.
12. D.J. Russomanno, *State of the Purdue School of Engineering and Technology*, Malaysian Alumni Hi Tea, Kuala Lumpur, Malaysia, March, 2012.
13. D.J. Russomanno, *Ontologies for Profiling Sensors*, U.S. Army Research Laboratory Status Briefing, Memphis, TN, March, 2011.

14. D.J. Russomanno, *Engineering Deans' Panel*, 2011 ASME International Mechanical Engineering Education Conference, Clearwater Beach, FL, March, 2011.
15. D.J. Russomanno, *Profiling Sensors Research and Development Overview*, U.S. Army Research Laboratory, Adelphi, MD, September, 2009. *
16. D.J. Russomanno, *Electrical and Computer Engineering Research Focus Areas*, FedEx Institute of Technology Advisory Board, Memphis, TN, November, 2008.
17. D.J. Russomanno, *Profiling Sensors*, Herff College of Engineering Advisory Council, Memphis, TN, April, 2008.
18. D.J. Russomanno, *Ontology-Based Sensor Network Prototype Environment*, Tennessee State University College of Engineering and Technology, Nashville, TN, April, 2007.
19. D.J. Russomanno, *Semantic Web Infrastructure for Ubiquitous Sensing*, IT Innovation/Federal Express Research Labs at Emerge Memphis, Memphis, TN, February, 2007.
20. D.J. Russomanno, *Knowledge Engineering Accomplishments within the Center for Advanced Sensors*, U.S. Army Night Vision and Electronic Sensors Directorate, Ft. Belvoir, VA, October, 2005.
21. D.J. Russomanno, *NSF/CSEMS: Student Networks and Student Research Issues*, NSF/CSEMS Southeastern Region PIs Meeting, Mississippi State University, Starkville, MS, May, 2005. *
22. D.J. Russomanno, *NSF/CSEMS: Recruitment and Retention Panel*, NSF/CSEMS Southeastern Region PIs Meeting, Mississippi State University, Starkville, MS, May, 2005. *
23. D.J. Russomanno, *Data Visualization (Poster)*, NSF Engineering and Computing Education Grantees Meeting, Washington, DC, February, 2005.
24. D.J. Russomanno, *Plausible Inference and the Semantic Web*, Herff College of Engineering Research Seminar Series, Memphis, TN, March, 2003.
25. D.J. Russomanno, *Electric Distribution System Data Migration Techniques for MicroStation Source Data*, Intergraph Corporation, Huntsville, AL, June, 2001. *
26. D.J. Russomanno, *Pipeline Data Migration*, Columbia Gas and Transmission, Houston, TX, December, 1997.*
27. D.J. Russomanno, *Gas-Distribution Data Migration Techniques*, Questar Regulated Service, Salt Lake City, UT, December, 1997.*
28. D.J. Russomanno, *Logic Programming in AM/FM/GIS Data Migration*, U. of Memphis Electrical and Computer Engineering Research Seminar Series, Memphis, TN, November, 1997.
29. D.J. Russomanno, *Cable/Fiber-Distribution Data Migration Techniques*, Cox Communications, Omaha, NE, May, 1996.*
30. D.J. Russomanno, *Connectivity Derivation in Electrical-Distribution Networks*, Eastern Utilities, E. Bridgewater, MA, August, 1995.*
31. D.J. Russomanno, *Electrical-Distribution Data Migration Techniques from IDMS Data Sources*, Central Vermont Public Service, Rutland, VT, May, 1995.*
32. D.J. Russomanno, *Data Migration to FRAMME*, Apex Data Services, Reston, VA, September, 1994. *
33. D.J. Russomanno, *Electrical-Distribution Migration Techniques from IBM GFIS Data Sources*, Texas Utilities Corporation, Ft. Worth, TX, September, 1993.
34. D.J. Russomanno, *Data Migration Techniques to FRAMME*, Intergraph Graphics Users Group Conference (IGUG), Huntsville, AL, May, 1993.

* Invited presentation in which the corporation/institution/university that hosted the event paid all travel expenses.

## SERVICE (professional societies, boards and other organizations)

| SOCIETY/BOARD/ORGANIZATION | POSITION | PERIOD |
|---|---|---|
| OmniSite Corporation | Member, Board of Advisors | 2018 – 2020 |
| U.S. Air Force Research Lab Innovation 2030 | Member, Steering Committee, IN Workshop | 2018 |
| IU Ventures | Member, Board of Directors | 2015 – 2022 |
| International Test and Evaluation Association | Member | 2014 – 2019 |
| Engineering Accreditation Commission (EAC) of ABET, Program Evaluator (PEV)<br><br>(Mock visits are denoted by an asterisk (*) and were on a consulting basis with compensation paid by the host institution and were not performed as an official ABET PEV.) | PEV, BS in CpE, California State U. at Northridge<br>PEV, BS in EE, Northeastern U. (mock visit)*<br>PEV, BS in CpE, The College of New Jersey<br>PEV, BS in CpE, U. Scranton<br>PEV, BS in EE, UAB (mock visit)*<br>PEV, BS in EE, U. Houston (mock visit)*<br>PEV, BS in EE, U. Texas at SA (mock visit)*<br>PEV, BS in EE, PVAMU (mock visit)*<br>PEV, BS in CpE, California State U. at Fullerton<br>PEV, BS in CpE, U. California at Davis | 2013<br>2013<br>2012<br>2011<br>2011<br>2010<br>2009<br>2009<br>2008<br>2006 |
| State of Indiana Automotive Council | Member (facilitated by Conexus Indiana) | 2011 – 2018 |
| State of Indiana Aerospace and Defense Council | Member (facilitated by Conexus Indiana) | 2011 – 2016 |
| Indiana-STEM Resource Network | Member, Board of Directors | 2010 – 2014 |
| Alumni Association, Purdue School of Engineering and Technology | Ex-Officio Member, Board of Directors | 2010 – |
| Solutions Center | Member, Advisory Board | 2010 – 2014 |
| ASEE Engineering Deans Council | Member | 2010 – |
| National Science Foundation (NSF) | Chair of Review Panel, S-STEM Program | 2008 |
| U.S. Air Force Workshop on Intelligent Sensory Data Processing and Imaging in Dynamic Battlefield Scenarios | Panelist, Potential Funding in Human Effectiveness and Networks, Semantic Web | 2007 |
| Association for Computing Machinery (ACM) | Senior Member<br>Member | 2007 –<br>1995 – 2007 |
| American Society for Engineering Education (ASEE) | Member | 2006 – |
| International Association of Science and Technology for Development (IASTED) | Member | 2005 – 2007 |
| Southeastern Electrical and Computer Engineering Department Heads Association (SECEDHA) | Member | 2004 – 2010 |
| Electrical and Computer Engineering Department Heads Association (ECEDHA) | Member | 2004 – 2010 |
| Southeastern Center for Electrical Engineering Education (SCEEE) | Member | 2004 – 2010 |
| Institute of Electrical and Electronics Engineers (IEEE) Computer Society | Chair, Memphis Section<br>Vice-Chair, Memphis Section<br>Vice-Chair, Memphis Section<br>Chair, Memphis Section<br>Member | 2004 – 2005<br>2001 – 2003<br>1997 – 1999<br>1993 – 1996<br>1991 – 2010 |
| Institute of Electrical and Electronics Engineers (IEEE) | Chair, Memphis Section<br>Member, Admission and Advancement Committee<br>Senior Member<br>Vice-Chair, Memphis Section<br>Secretary, Memphis Section<br>Mid-South Video Conference Coordinator<br>Member | 2000<br>2000<br>1998 –<br>1997 – 1999<br>1996 – 1997<br>1994<br>1991 – 1998 |

**SERVICE** **(academic unit: department, college/school, campus, university, system, and governing board)**

| UNIT | COMMITTEE/ACTIVITY | PERIOD |
|---|---|---|
| ***Department*** (i. Electrical and Computer Engineering, ii. Computer Science, and iii. Engineering Technology, U. of Memphis) | Chair, Electrical and Computer Engineering Honors Committee | 2005 – 2010 |
| | Member, Undergraduate Computer Engineering Curriculum Committee | 2004 – 2010 |
| | Chair, Electrical and Computer Engineering Tenure and Promotion Committee | 2003 – 2004 |
| | Member, Engineering Technology Search Committee | 2003 – 2004 |
| | Member, Computer Science Tenure and Promotion Committee | 2001 – 2002 |
| | Member, Engineering Technology Tenure and Promotion Committee | 2001 – 2002 |
| | Member, Electrical and Computer Engineering Tenure and Promotion Committee | 2000 – 2002 |
| | Chair, Computer Engineering/Computer Science Liaison Committee | 2000 – 2010 |
| | Chair, Undergraduate Computer Engineering Curriculum Committee | 1999 – 2004 |
| | Chair, Electrical and Computer Engineering Faculty Search Committee | 1999 – 2004 |
| | Chair, Computer Engineering Degree Planning Committee | 1997 – 1999 |
| | Member, ABET'97 Visit EECE Departmental Coordination Team | 1996 – 1997 |
| | Member, Electrical and Computer Engineering Graduate Curriculum Committee | 1993 – 2010 |
| | Member, Undergraduate Electrical Engineering Curriculum Committee | 1993 – 2010 |
| ***College/School*** (Herff College of Engineering, U. of Memphis) | Member, Search Committee Associate Dean Recruitment, Retention, & Assessment | 2010 |
| | Member, Search Committee Associate Dean Academic Affairs | 2010 |
| | Member, College Web Committee | 2007 – 2008 |
| | Member, ABET'09 Visit College Coordination Team | 2007 – 2009 |
| | Member, College Administrative Committee | 2004 – 2010 |
| | Member, College Space Committee | 2004 |
| | Member, College Undergraduate Curriculum Committee | 2000 – 2002 |
| | Member, ABET EC2K Coordinating Committee | 2000 – 2002 |
| | Member, College Technology Support Services Self-Study Committee | 1996 – 1997 |
| | Member, Search Committee for Electrical Engineering Department Chair | 1996 – 1997 |
| | Member, College Computer Committee | 1995 – 2004 |
| | Member, College Scholarship Committee | 1994 – 1998 |
| | Member, Engineering Open House Committee | 1994 |
| ***College/School*** (i. U. College, ii. Eng and Tech, iii. Informatics, IUPUI) | Member, IUPUI University College Council on Retention and Graduation | 2010 – |
| | Chair, Purdue School of Engineering and Technology Chairs, Deans, and Directors | 2010 – |
| | Chair, Purdue School of Engineering and Technology Chairs and Associate Deans | 2010 – |
| | Member, Purdue School of Engineering and Technology Assessment Committee | 2010 – |
| | Member, IU School of Informatics Tenure and Promotion Committee | 2010 |
| ***Campus*** (IUPUI) | Member, IUPUI Campus Space Planning Committee | 2021 – |
| | Member, COVID-19 Planning Scenarios Campus Steering Committee | 2020 |
| | Chair, Search Committee for Dean of the Purdue School of Science | 2019 – 2020 |
| | Member, Global Alumni Events Planning Committee | 2017 – 2018 |
| | Member, Responsibility Centered Management Budget Model Review Committee | 2017 |
| | Member, Search Committee for Vice Chancellor for Finance and Administration | 2016 |
| | Member, Welcoming Campus for Students Task Force | 2016 – 2017 |
| | Member, Resource Planning Committee (campus budgetary advisory committee) | 2015 – |
| | Chair, Administrative Review Vice Chancellor and Dean of IUPUC extension | 2014 – 2015 |
| | Member, Steering Committee for the Intergroup Dialogue Initiative | 2013 – 2018 |
| | Member, Sun Yat-sen University Cooperative Development Executive Committee | 2013 – 2019 |
| | Member, Community Engagement Strategic Planning Task Force | 2012 – 2013 |
| | Member, Enrollment Management Advisory Council | 2012 – |
| | Member, Administrative Review Vice Chancellor for Research | 2012 – 2013 |
| | Member, Admin. Review Assistant VC for Diversity, Equity and Inclusion | 2011 – 2012 |
| | Member, Central Indiana NSF STEM Talent Expansion Advisory Committee | 2010 – 2015 |
| | Member, IUPUI Faculty Council (ex-officio) | 2010 – |
| | Member, IUPUI Chancellor's Council of Academic Deans and Vice Chancellors | 2010 – |
| | Member, IUPUI Executive Vice Chancellor's Council of Academic Deans | 2010 – |

**SERVICE** **(academic unit: department, college/school, campus, university, system, and governing board, continued)**

| UNIT | COMMITTEE/ACTIVITY | PERIOD |
|---|---|---|
| ***University*** (U. of Memphis) | Member, Science, Technology, Engineering, Mathematics (STEM) Committee | 2009 – 2010 |
| | Chair, STEM Undergraduate Research Committee | 2009 |
| | Member, Compensation Policies and Procedures Advisory Committee | 2009 – 2010 |
| | Chair, Information Security Policy Advisory Committee | 2008 – 2010 |
| | Moderator, Recruitment and Retention Breakout at Administrative Retreat | 2008 |
| | Panelist, Workshop on Tenure and Promotion | 2007, 2009 |
| | Member, Strategic Planning Processes Subcommittee | 2007 |
| | Moderator, Research Breakout at Administrative Retreat | 2007 |
| | Panelist, Department Chairs' Workshop | 2006 |
| | Member, Search Committee for Executive Director of the FedEx Institute | 2006 – 2007 |
| | Panelist, Workshop on Promotion from Associate to Full Professor | 2006 |
| | Member, Provost's South Campus Master Plan Committee (Academic Advisory) | 2005 – 2006 |
| | Member, Information Assurance/Computer Security Ad Hoc Committee | 2005 |
| | Member, Van Vleet Memorial Doctoral Selection Committee | 2005 – 2010 |
| | Member, Internal SACS Audit Team for General Education Competencies | 2003 – 2004 |
| | Member, Internal SACS Audit Team for Program Requirements and Competencies | 2003 – 2004 |
| | Member, Provost's Computing Programs Advisory Committee | 2002 – 2003 |
| | Member, Search Committee for VP of Information Technology and CIO | 2002 – 2003 |
| | Member, Federal Express (FedEx) Emerging Technology Center (Advisory) | 2001 – 2002 |
| | Member, Library/Information Technology Interface Committee | 1998 – 2000 |
| | Member, Information Technology (IT) Academic Advisory Committee | 1996 – 2004 |
| ***University*** (Various, External) | Evaluator, U. Memphis, promotion to Assoc. Professor (Engineering Tech.) | 2021 |
| | Evaluator, Old Dominion U., Eminent Scholar (VA Council of Higher Education) | 2019 |
| | Evaluator, U. Memphis, promotion to Assoc. Professor (Engineering Tech.) | 2018 |
| | Evaluator, Old Dominion U., Eminent Scholar (VA Council of Higher Education) | 2016 |
| | Evaluator, U. Memphis, promotion to Professor (Computer Eng.) | 2016 |
| | Evaluator, Old Dominion U., Eminent Scholar (VA Council of Higher Education) | 2015 |
| | Evaluator, U. of Alabama, promotion to Professor (Electrical Eng.) | 2014 |
| | Evaluator, Arkansas State U., promotion to Assoc. Professor (Electrical Eng.) | 2014 |
| | Evaluator, U. Memphis, promotion to Professor (Computer Eng.) | 2012 |
| | Evaluator, U. Memphis, promotion to Assoc. Professor (Engineering Tech.) | 2011 |
| | Evaluator, U. Memphis, promotion to Professor (Electrical Eng.) | 2010 |
| | Evaluator, U. Memphis, promotion to Professor (Computer Eng.) | 2010 |
| | Evaluator, U. Arkansas (Little Rock), promotion to Professor (Systems Eng.) | 2008 |
| | Evaluator, U. Arkansas (Fayetteville), promotion to Professor (Computer Sci.) | 2006 |
| ***University System*** (Indiana University) | Member, COVID-19 Restart: International Working Group | 2020 |
| | Chair, Administrative Review Dean Indiana University School of Social Work | 2013 – 2014 |
| | Member, Internal Advisory Board Indiana University Energy Institute | 2010 – 2012 |
| | Member, President's Council of Indiana University Academic Deans (IUPUI & IUB) | 2010 – |
| ***University System*** (Purdue University) | Co-Leader, PWL-IUPUI Realignment Academic Working Groups (5 groups total) | 2022 – 2023 |
| | Co-Chair, PWL-IUPUI Realignment Research Working Group | 2022 – 2023 |
| ***Governing Board*** (Tennessee Board of Regents) | Member, Work Force Think Tank Committee within Tennessee Board of Regents Universities | 2007 – 2008 |

## SERVICE (journal, book and conference paper referee/session chair/conference chair)

| JOURNAL/CONFERENCE/BOOK | POSITION | PERIOD |
|---|---|---|
| *IEEE Pervasive Computing* | Journal Reviewer | Ad hoc |
| *IEEE Transactions on Reliability* | Journal Reviewer | Ad hoc |
| *IEEE Transactions on Human-Machine Systems* | Journal Reviewer | Ad hoc |
| *Information Sciences* | Journal Reviewer | Ad hoc |
| *International Journal of Geographical Information Science* | Journal Reviewer | Ad hoc |
| *Computers and Geosciences* | Journal Reviewer | Ad hoc |
| *Computers in Industrial Engineering* | Journal Reviewer | Ad hoc |
| *Sensors* | Journal Reviewer | Ad hoc |
| *IEEE International Conference on Innovation and Technological Advances for Sustainability* | Member, Program Committee | 2023 |
| *24th IEEE International Conference on Intelligent Transportation Systems* | Member, International Advisory Committee | 2021 |
| *IEEE International Conference on Electro/Information Tech.* | General Chair | 2012 |
| *International Conference on Internet Computing* | Conference Session Chair on *WWW and Intranets* | 2008 |
| *Encyclopedia of Artificial Intelligence*, | Chapter Reviewer (*Info. Science Ref.)* | 2007 |
| *IEEE SoutheastCon* | Track Co-Chair on *Information Systems* | 2006 |
| *IASTED International Conference on Software Engineering* | Conference Session Chair on *Database, Data Mining, and Semantic Web* | 2005 |
| *IASTED International Conference on Artificial Intelligence and Applications* | Conference Session Chair on *Knowledge Representation* | 2004 |
| *Software Development in an Object-Oriented Domain* | Proposed Book (Prentice Hall) Reviewer | 2003 |
| *Object-Oriented Software Engineering,* Bruegge and Dutoit | Book Reviewer, Prentice Hall | 2001, 2002 |
| *The Engineering of Knowledge-Based Systems,* A. Gonzalez and D. Dankel | Book Reviewer, Prentice Hall (1st & 2nd ed) | 2000, 2003 |
| *An Introduction to C++ for Scientific Computing,* A.S. Grimshaw and J.M. Ortega | Book Reviewer, Oxford University Press | 1997 |
| *IEEE International Conference on Evolutionary Computation* | Conference Paper Reviewer | 1997 |
| *Third Golden West International Conference on Intelligent Systems* | Conference Session Chair on *Expert Systems;* Conference Paper Reviewer | 1995 |

## OUTREACH

| PROJECT | PARTICIPANTS | PERIOD | SPONSORSHIP |
|---|---|---|---|
| *GreenpowerUSA* Foundation Student Electric Car Challenge at the Indianapolis Motor Speedway (IMS), Facilitator | High school students from Alabama, Indiana, North Carolina, Utah, and elsewhere, including UK | 2017 | Various, including Siemens, Sports Car Club of America, IMS |
| Indiana State VEX IQ Championship, Speaker, Facilities Support | High school students from Indiana | 2017 | Various, including TechPoint Foundation |
| FIRST Robotics Regional Competition, Speaker, Coordinator and Facilities Support | High school students from Indiana, Illinois, Ohio, and Kentucky | 2010 – 2016 | Various, including Rolls-Royce, Cummins |
| Student Research Forum, Judge | Undergrad and graduate students | 2005 | U. of Memphis |
| Data Visualization Applications in High-School Physics, Principal Investigator | High school students and teachers from W. Tennessee | 2004 – 2007 | National Science Foundation/U. of Memphis |

## OUTREACH (continued)

| PROJECT | PARTICIPANTS | PERIOD | SPONSORSHIP |
|---|---|---|---|
| GEAR-UP Gaining Early Awareness and Readiness for Undergraduate Programs, Computer Instructor | At risk middle and high school students from Memphis City Schools | 2000 – 2004 | U.S. Department of Education |
| Science Olympiad, Judge and Session Coordinator | Jr. and Sr. high school students from W. Tennessee and N. Mississippi | 1997 – 2004 | U. of Memphis |
| Young Scholars Program, Instructor | Jr. high school students from W. Tennessee | 1997 | National Science Foundation |
| Mid-South Alliance for Minority Participation, Mentor | Freshmen and sophomore students from the U. of Memphis and LeMoyne Owen College | 1996 – 2001 | National Science Foundation |

## TEACHING EXPERIENCE

| SUBJECT *(Undergraduate (U), Graduate (G))* | INSTITUTION |
|---|---|
| C/C++ Programming (U) (equivalent to Computer Science 1--CS1) | University of Memphis |
| Database Design (U/G) | University of Memphis |
| Software Engineering (U) (cross-listed with CS) | University of Memphis |
| Expert Systems (U/G) (cross-listed with CS) | University of Memphis |
| Introduction to Artificial Intelligence (U/G) (cross-listed with CS) | University of Memphis |
| Logical Foundations of Artificial Intelligence (G) (cross-listed with CS) | University of Memphis |
| Advanced Artificial Intelligence (G) (cross-listed with CS) | University of Memphis |
| Prolog Processing for AI Applications (G) | University of Memphis |
| Object-Oriented Modeling and Design (G) | University of Memphis |
| Deductive Database Systems (G) | University of Memphis |
| Data Visualization (U/G) (cross-listed with CS) | University of Memphis |
| Honors Program (U): sections of AI and Expert Systems as honors courses | University of Memphis |
| M.S. Thesis (director) | University of Memphis |
| Ph.D. Dissertation (director) | University of Memphis |
| M.S. Thesis (director) | IUPUI |

## STUDENT ADVISING (C-denotes chair of committee; M-denotes member of committee)

*BS Honors Theses*

1. W. White, "Clustering for Improved Learning in Maze Traversal Problem," U. Memphis, 2009. (M)
2. M. Zettergren, "Making Plausible Inferences on the Semantic Web with Prolog," U. Memphis, 2003. (C)
3. K. Hicks, "Extracting Isovolumes from Torso Geometry with a Prolog Centroid Algorithm," U. Memphis, 1999. (C)

*MS Theses*

1. A. Galvis, "Advancing Profiling Sensors with a Wireless Approach," Purdue University (IUPUI campus), 2012. (C)
2. K. Reynolds, "Real-Time Object Classification Using a Custom Sparse Array Profile Sensor on an Embedded Microcontroller," U. Memphis, 2011. (M)
3. K. Emmanuel, "Improvements to a Profiling Sensor for Signature Acquisition," U. Memphis, 2009. (C)
4. A. Lemmon, "Application of Signal Detection Methods to Autonomous Control of Wireless Devices aboard Commercial Jet Aircraft," U. Memphis, 2009. (M)

5. Y. Tritenko, “Managing Sensor Deployments with Geographical Information Systems,” U. Memphis, 2008. (C)
6. J. Qualls, “Enhancing DefibViz with Multi-Electrodes, Hinge-Slicing and Alternative Thorax Models,” U. Memphis, 2008. (C)
7. V. Kotha, “Robust Detection of Pedestrian Crossing and Traffic Lights with Application to Assistance for the Blind,” U. Memphis, 2008. (M)
8. D. Konakanchi, “Simultaneous Double Atrial DC Shock Techniques for Atrial Fibrillation,” U. Memphis, 2008. (M)
9. C. Goodwin, “Integration of a Sensor Ontology into a Service-Oriented Architecture,” U. Memphis, 2007. (C)
10. B. Vanteru, “Semantically Linking PubMed to the Gene Ontology for Ontology Based Browsing using SEGOPubmed,” U. Memphis, 2007. (M)
11. M. Hoque, “What Speech Tells Us About Discourse: The Role of Prosodic and Discourse Features in Dialog Act Classification,” U. Memphis, 2007. (M)
12. G. Atanasova, “Interactive Visualization Tool for Electrode Placement and Assessment of Transthoracic Defibrillation Thresholds,” U. Memphis, 2006. (C)
13. K. Jampana, “Self Organization and Visual Exploration of Large High Dimensional Data Sets,” U. Memphis, 2004. (C)
14. R. Kabra, “Face Image Retrieval Using Region-Based Features and Fuzzy Aggregation of Partial Similarities,” U. Memphis, 2004. (C)
15. O. Miller (Thomas), “SWEXSYS:  Toward a Semantic Web Expert System Shell,” U. Memphis, 2004. (C)
16. E. Guzman, “Investigation of New Evolutionary Clustering Models and Applications to Unsupervised Anomaly Detection,” U. Memphis, 2004. (M)
17. S. Kotturu, “Detection and Discrimination of Landmines in Ground Penetrating Radar using an EigenMine and Fuzzy Membership Approach,” U. Memphis, 2004. (M)
18. C. Uribe, “A New Immune System Model to Cluster Data Streams,” U. Memphis, 2004. (M)
19. C. Rojas, “A Model for Scalable Clustering Using a Robust Estimator,” U. Memphis, 2004. (M)
20. S. Goswami, “A Generalized Framework for Discovering Localized Error Tolerant Frequent Patterns with Dynamic Error Tolerance,” U. Memphis, 2004. (M)
21. M. Pavuluri, “A Study of New Intelligent Recommender Systems for Web Personalization,” U. Memphis, 2003. (M)
22. C. Petenes, “Intelligent Web Personalization System with a Fuzzy Recommendation Engine,” U. Memphis, 2003. (M)
23. J. Shaik, “Hilbert-Wavelet Transform Based Rotated Target Detection and Tracking,” U. Memphis, 2003. (M)
24. N. Frigui, “Invisible Robust Spatial Domain Watermarking Technique,” U. Memphis, 2004. (M)
25. N. Krammer, “The Effects of Dual Shock Strength on Defibrillation Threshold Energy and Weak Field Distribution,” U. Memphis, 2000. (M)
26. J. Jackson, “A Java-based Embedded System for Acquisition of Scour Data,” U. Memphis, 2000. (M)
27. K. Khandeshi, “Application of Mobile Agents to Database Reverse Engineering,” U. Memphis, 1999. (M)
28. C. Lu, “KAT: A Knowledge Acquisition Tool for Acquiring Knowledge Based Upon the No-Causality-In-Function Principle,” U. Memphis, 1997. (C)
29. S. Nandiwada, “PRO-RIS: Implementing a Portable Relational Interface Between Prolog and Relational Databases,” U. Memphis, 1997. (C)
30. J. Anderson, “An Environment for Control of a Flexible-Link Robot,” U. Memphis, 1997. (M)
31. J. Replogle, “Extracting Isovolumes from 3D Torso Geometry Using Prolog,” U. Memphis, 1997. (M)

32. H. Patrick, “Application of Fuzzy Logic Control Theory in Controlling an Elevator Door,” U. Memphis, 1996. (M)
33. S. Patel, “PRO-EARL: Implementing the EARL Semantic Constraints using a Relational Database Model Built in Prolog,” U. Memphis, 1995. (C)
34. R. Kondabala, “Software Emulation of an ATM Switching System,” U. Memphis, 1995. (M)
35. P. Lim, “A Systematic Approach to Resolve Power Quality Complaints,” U. Memphis, 1994. (M)
36. P. Shah, “Computer Simulation of Percolation on a Feed-Forward Network,” U. Memphis, 1994. (M)
37. J. Sun, “Self-Organized Classification and Segmentation of Magnetic Resonance Images,” U. Memphis, 1994. (M)

*MS Projects*

1. S. Strain, “Modeling Medical Diagnosis in LIDA,” U. Memphis, 2009. (M)
2. H. Kusumba, “Controlling a Sony 1394 Camera Using Web Services,” U. Memphis, 2008. (C)
3. P. Orfanidis, “Preprocessing Enhancements to Improve Data Mining Algorithms,” U. Memphis, 2006. (C)
4. P. Tran, “GUI Development for the Relation Semantics Elicitation Prototype,” U. Memphis, 2005. (C)
5. S. Vuppu, “Implementation of Agglomerative Hierarchical Clustering Algorithm: Semantic Web Application,” U. Memphis, 2005. (C)
6. A. Aggarwal, “GUI Development for Semantic Web Expert System,” U. Memphis, 2003. (C)
7. D. Abburi, “Rule Markup Language Import/Export Tools for Semantic Web Expert System,” U. Memphis, 2003. (C)
8. A. Kotte, “RDF Crawler Implementation Using Prolog,” U. Memphis, 2003. (C)
9. M. Vyas, “Implementation of Find Tuple Predicate Using Prodbi-ODBC Interface for Quintus Prolog,” U. Memphis, 2003. (C)
10. A. Akula, “GUI Implementation for RDF Crawler and Plausible Inference,” U. Memphis, 2003. (C)
11. H. Gauji, “SWI-Prolog ODBC Interface Evaluation for Large Data Sets,” U. Memphis, 2002. (C)
12. J. Lunawat, “Prolog Implementation of Polygon Processing Algorithms,” U. Memphis, 2001. (C)
13. S. Williams, “Secure Document Management System,” U. Memphis, 2001. (C)
14. M. Challa, “MapInfo Customization using MapBasic Part II,” U. Memphis, 2001. (C)
15. A. Mohammed, “MapInfo Customization using MapBasic Part I,” U. Memphis, 2001. (C)
16. C. Kothari, “Solving the Hamiltonian Path Problem: A DNA Simulation versus a Classical Method,” U. Memphis, 2000. (C)
17. G. Kota, “Java Tools for Web Page Management,” U. Memphis, 2000. (C)
18. S. Arumbaka, “Online Configuration Management System,” U. Memphis, 2000. (C)
19. K. Harwani, “GIS Tool Development using Bentley MicroStation MDL/C++,” U. Memphis, 1998. (C)
20. S. Jeejuala, “Implementation of Logic-Based Spatial Reasoning Predicates,” U. Memphis, 1998. (C)
21. A. Shah, “An ODBC Extraction Tool for Prolog Fact Creation,” U. Memphis, 1997. (C)
22. W. Yu, “Database Application using ODBC and DAO,” U. Memphis, 1997. (C)
23. P. Burra, “Design and Development of a Dynamic Web Page for an Academic Course,” U. Memphis, 1997. (C)
24. J. Patel, “Using Prolog/Flex/KSL to Simulate the Oil Flow for Engine Lubrication,” U. Memphis, 1996. (C)
25. S. Revalli, “FISCMP—An Oracle Application to Compare Data,” U. Memphis, 1996. (C)
26. J. Lewis, “Installing, Testing, and Documenting QUEL on a Linux Platform,” U. Memphis, 1996. (C)
27. W. Chang, “Automatic Code Generator: Feature Definition Language to Prolog Meta Rules,” U. Memphis, 1995. (C)

28. V. Ranamitra, “Load Flow Implementation Using Newton-Raphson’s Method in Polar Form,” U. Memphis, 1995. (C)

*PhD Dissertations*

1. D. Konakanchi, “Effects of Macroscopic Heterogeneity on Propagation and Termination of Reentry–A Simulation Study.” U. Memphis, (2014). (M)
2. S. Ahmed, “An Information Theoretic Approach for Feature Selection and Posterior Fossa Tumor Segmentation,” U. Memphis, 2011. (M)
3. J. Qualls, “Ontological Problem-Solving Framework for Dynamically Discovering, Matching, and Tasking Sensor Systems and Algorithms,” U. Memphis, 2011. (C)
4. A. Islam, “Computer-Aided Pediatric Brain Tumor Detection, Prediction and Statistical Validation Using Structural MRI and Gene Expression Data,” U. Memphis, 2008. (M)
5. J. Shaik, “Knowledge Discovery in Microarrays,” U. Memphis, 2007. (M)
6. C. Kothari, “Towards Richer Relation Semantics on the Semantic Web,” U. Memphis, 2005. (C)
7. H. Li, “Experimental Designs for Cardiac Mapping Studies on Defibrillation,” U. Memphis, 1998. (M)
8. E. Entcheva, “Cardiac Tissue Structure—Electric Field Interactions in Polarizing the Heart: 3-D Computer Models and Applications,” U. Memphis, 1998. (M)
9. A. de Jongh, “Modeling Transvenous Defibrillation in the Human Thorax,” U. Memphis, 1997. (M)
10. Q. Huang, “Transmembrane Potentials of the Heart Induced by Defibrillation Fields: A 3-D Finite Element Biodomain Model,” U. Memphis, 1997. (M)
11. X. Ji, “Simultaneous Perturbation Stochastic Approximation Approach to Intelligent Controller Design,” U. Memphis, 1996. (M)

## CONSULTING (Software Engineering and Intelligent Systems)

| ORGANIZATION/COMPANY | PERIOD |
|---|---|
| Mav6, LLC (Alexandria, Virginia and Vicksburg, Mississippi) | 2010 – 2012 |
| AI-GIS Technologies, Inc. (Memphis, Tennessee) | 2006 – 2009 |
| Huntsville Utilities (Huntsville, Alabama) | 2001 – 2002 |
| Northwestern Energy (formerly Montana Power) (Missoula, Montana) | 2000 – 2002 |
| XO (formerly Nextlink) Corporation (Reston, Virginia) | 2000 – 2001 |
| Ameritech Corporation (Chicago, Illinois) | 1999 – 2001 |
| Philadelphia Electric Company (Philadelphia, Pennsylvania) | 1999 |
| Portland General Electric (Portland, Oregon) | 1998 – 1999 |
| Columbia Gas Transmission (Houston, Texas; Charleston, W. Virginia) | 1998 |
| Questar Regulated Service (Salt Lake City, Utah) | 1998 – 2001 |
| Cox Communications (Atlanta, Georgia; Omaha, Nebraska; and San Diego, California) | 1996 – 2002 |
| West Penn Power (Pittsburgh, Pennsylvania) | 1995 |
| Eastern Utilities (E. Bridgewater, Massachusetts) | 1995 – 1996 |
| Central Vermont Public Service (Rutland, Vermont) | 1995 |
| National Fuel and Gas (Buffalo, New York) | 1994 |
| Consolidated Edison of New York (New York, New York) | 1993 – 1995 |
| Texas Utilities (Ft. Worth, Texas) | 1993 – 1994 |

## CONSULTING (Expert Witness/Expert Opinion)

| ORGANIZATION/COMPANY | PERIOD |
|---|---|
| Ear, Nose and Throat Group Inc. (Memphis, Tennessee) versus Hartford Casualty Insurance Company | 2004 |

## PROFESSIONAL DEVELOPMENT (Selected)

| ACTIVITY | PERIOD |
|---|---|
| The Fund Raising School, Lilly Family School of Philanthropy, Indianapolis, IN (4-day program) | 2015 – 2016 |
| Development for Deans & Academic Leaders, Council for Advancement & Support of Education (CASE), Bonita Springs, FL (2-day program) | 2013 |
| MuSES IR Signature Prediction Software, ThermoAnalytics Inc., Calumet, MI (3-day program) | 2010 |
| Intellectual Property and Patents, U. of Memphis, Memphis, TN (1-day program) | 2007 |
| Medical image analysis and visualization, Kitware Inc., Carrboro, NC (2-day program) | 2007 |
| Tennessee Board of Regents Academic Leadership Institute, TBR, Nashville, TN (1-year program) | 2006 – 2007 |
| ABET/EAC Program Evaluator Training, ABET Inc., Newark, NJ (1-day program) | 2006 |
| Science Education for New Civic Engagements and Responsibilities (SENCER) Institute, San Jose, CA (1-week program) | 2002 |
| Critical Thinking in Teaching Workshop, U. of Memphis, Memphis, TN (1-day program) | 1994 |
| FRAMME Utilities Training, Intergraph Corporation, Huntsville, AL (1-week program) | 1992 |
| UNIX Operating System, Intergraph Corporation, Huntsville, AL (3-day program) | 1992 |
| UNIX Shell Script Programming, Intergraph Corporation, Huntsville, AL (3-day program) | 1992 |
| Teaching in the University Environment, U. of S. Carolina, Columbia, SC (2-day program) | 1990 |

# 4. Additional Business

Presented by Doug Edwards

# 5. Adjournment

Presented by Doug Edwards