JUSTIN SCHWARTZ
Executive Vice President and Provost
The Pennsylvania State University

EXECUTIVE SUMMARY

Justin Schwartz serves as the Executive Vice President and Provost (EVPP) at the Pennsylvania State University. Penn State is a longstanding member of the AAU and is consistently ranked among the nation's top public universities with highly ranked programs in a broad spectrum of academic disciplines. With over 6,500 full-time faculty, ~88,000 students at 24 physical campuses across the state and Penn State's World Campus, an $8.4 billion annual operating budget, $4.3 billion endowment, and over $1 billion in annual research expenditures, Penn State is amongst the nation's largest and most complex universities. Schwartz serves as Penn State's Chief Academic Officer and has direct responsibility for about a $2B budget supporting all sixteen academic colleges and schools, nineteen commonwealth campuses, World Campus, Student Affairs, University Libraries, Penn State Sustainability University Health Services, Penn State Global, the Schreyer Honors College, and the Offices of Educational Equity, Faculty Affairs, Affirmative Action, and Planning, Assessment and Institutional Research. Schwartz works closely with President Bendapudi and her leadership team to set university priorities across Penn State.

A highly visible, engaging and transparent leader, Provost Schwartz has built a diverse leadership team and launched efforts to diversify faculty, close demographic gaps in student success to diversify Penn State's graduating classes, and to integrate student curricular and co-curricular experiences to provide holistic student experiences. Recognizing the need to align academic offerings with the interests of a global student population and societal needs, Schwartz launched an Interdisciplinary Schools Task Force, creating a framework to bring together multiple colleges and campuses to offer undergraduate and graduate degree programs in cross-cutting areas such as sustainability and artificial intelligence. Recognizing that the demands and demographics of higher education students is evolving, under his guidance, Penn State is reimagining online education, developing blended programs to meet the demands of students across Pennsylvania and the world.

Schwartz's tenure as EVPP has afforded him leadership experiences during a transformational period in Penn State history and in an era of unique challenges facing higher education across the United States. Schwartz played a key role in developing and implementing a new university-wide budget allocation model, is co-leading strategic planning, and serving as an executive sponsor of an initiative to restructure support services across the university for organizational excellence. Provost Schwartz led conversations within Penn State related to first amendment rights and the requirements of Title VI, addressing campus safety concerns triggered first by speakers hosted by Penn State student organizations and more recently by events related to the war in Israel and Gaza. Provost Schwartz charged a university-wide task force to create and implement a Visitor Rights and Responsibilities policy, codifying Penn State's behavioral expectations for all campus visitors.

Prior to his transition to EVPP, Schwartz served as the Harold and Inge Marcus Dean of the College of Engineering. With over 400 faculty, 400 staff, 10,000 undergraduate and graduate students, and over $180M in research expenditures and about $300M in total expenditures, the College of Engineering is Penn State's largest, most comprehensive college.

During his tenure as Dean of the College of Engineering, Schwartz transformed the foundations of the college. The College's strategic plan was built upon four cornerstones: excellence, equity, social mobility, and sustainability[1]. These same cornerstones guided changes to the College's promotion and tenure criteria, which had not been updated in over two decades. Recognizing that cultural change only succeeds in academia via faculty participation, Dean Schwartz engaged the College's faculty by using a novel

[1] In this context, sustainability refers to everything within the College, including financial management, student success, etc.

"open source" approach to writing the new promotion and tenure guidelines, giving all faculty in the College an opportunity to contribute directly to the writing of the new criteria. The resulting criteria explicitly recognize the challenges associated with bias in various forms of faculty evaluations.

Through Schwartz's leadership, Penn State emerged as a national engineering leader through the Engineering Equity Initiative. Schwartz set comprehensive goals for the College's equity culture and demographics, embodied in the College's Equity Action Plan, a roadmap to actualize the College's goals. The EAP is a detailed *call to action*, with clearly defined responsibilities and metrics for success. Schwartz led the national engineering community, co-leading his Big10+ decanal colleagues in an effort to request that ABET require equity education in engineering accreditation. To prepare the community for new accreditation requirements, he sponsored a national workshop on "Integrating Diversity, Equity, and Inclusion into Undergraduate Engineering Programs".

Under Schwartz's leadership, the College of Engineering diversified its tenure-line faculty, nearly doubling the number who identify as African-American/Black, doubling the number identifying as Latino/a, increasing the number of faculty who identify as female by over 75%, while recruiting the college's only faculty member who identifies as female Pacific Islander. Through his initiatives, the College expanded its interdisciplinary connections with Penn State's major research institutes, as well as many University Park colleges and Commonwealth Campuses, the College of Medicine, and the Applied Research Laboratory.

Schwartz provided a vision for impactful research at Penn State. Under his leadership, external research awards grew by over 50%, including significant increases in industry funding, and the graduate student population grew by 25%. The impact of his research vision extended beyond engineering, as he worked with colleagues to create new multidisciplinary research centers covering topics such as biodevices, artificial intelligence, and neurotechnology in mental health research. Schwartz played a key role in establishing Penn State's Global Building Network, a formal partnership with the United Nations, establishing Penn State's global leadership in building energy efficiency, human health, and social justice.

As Dean of Engineering, Schwartz focused on student success and well-being for all Penn State engineering students. The College modernized entrance-to-major processes and launched *Engineering Connect*, a program addressing the biggest hurdles faced by first-year students. Schwartz created the Project Drawdown Research Experience for Undergraduates program bringing students from across the U.S. to Penn State for summer research within six different Colleges, focusing on climate change action.

Schwartz led the College through a fundraising campaign which raised $250M, nearly doubling the College's total endowment. Gifts include the largest single gift to the College, $15.5M from the Clark Foundation to create the Clark Scholars Program, and a $7M gift to name the Ken and Mary Alice Lindquist Department of Nuclear Engineering, the only named nuclear engineering department in the U. S. Schwartz has advanced the College's relationships with alumni through a restructuring the Industrial and Professional Advisory Committee and cultivating strong engagement with the Penn State Engineering Alumni Society and the Engineering Development Council.

Schwartz is a Fellow of the National Academy of Inventors, AAAS, IEEE, and the ASM-International. Schwartz has published over 300 papers, seven issued patents, and served as principal or co-principal investigator for over $23M in research while advising 50 graduate students. He has been recognized internationally through professional society awards, including the IEEE Council on Superconductivity Award for Significant and Sustained Contributions to Applied Superconductivity and the TMS John Bardeen Award. He has given plenary and keynote addresses at United Nations events and around the globe.

CURRICULUM VITAE

Education

Ph.D., Nuclear Engineering, Massachusetts Institute of Technology, 1990

B.S., Nuclear Engineering, University of Illinois at Urbana, 1985 (Highest Honors and Bronze Tablet)

Professional Experience

Pennsylvania State University

- 08/22– present: Executive Vice President and Provost (interim from 08/22 – 04/23)
- 08/17 – 8/22: Harold and Inge Marcus Dean of Engineering
- 08/17 – present: Professor, Department of Engineering Science & Mechanics
- 08/17 – present: Professor, Department of Materials Science & Engineering (courtesy appointment)

North Carolina State University

- 08/09 – 08/17: Department Head and Kobe Steel Distinguished Professor, Department of Materials Science & Engineering
- 09/11 – 08/17: Affiliated Professor, Department of Physics
- 09/11 – 08/17: Affiliated Professor, Department of Nuclear Engineering
- 06/12 – 12/13: Interim Director, Analytical Instrumentation Facility, College of Engineering

Florida State University

- 04/05 – 08/09: Jack E. Crow Professor of Engineering
- 08/01 – 12/02: Senior Research Advisor to the Vice President for Research
- 08/99 – 04/05: Professor of Mechanical Engineering
- 12/93 – 08/99: Associate Professor of Mechanical Engineering
- 12/93 – 08/09: Leader, HTS Magnets and Materials Conductor Development Group, NHMFL

University of Illinois at Urbana

- 8/92 – 12/93: Assistant Professor of Mechanical and Industrial Engineering
- 2/90 – 12/93: Assistant Professor of Nuclear Engineering

National Research Institute for Metals, Superconducting Materials Research Group, Japan

- 2/90 – 8/90: Visiting Scientist under Dr. H. Maeda

Entrepreneurial Experience

Lupine Materials & Technology, Founder and CEO, 2015 – present
Eagle Power Technologies, Co-Founder and CTO, 2015 – 2021

ACADEMIC LEADERSHIP ACCOMPLISHMENTS

Pennsylvania State University

- ***Executive Vice President and Provost***
  - Chief Academic Officer for over 8,000 academic faculty (6,500 full-time) and ~88,000 students
  - Leads sixteen academic colleges and schools at University Park, nineteen Commonwealth Campuses, Hershey College of Medicine, Penn State Dickinson Law, World Campus, Student Affairs, Penn State Sustainability, Schreyer Honors College, University Libraries, Penn State Global, and the Offices of Educational Equity, Faculty Affairs, Affirmative Action, and Planning, Assessment, and Institutional Research
  - Implemented a university-wide policy of Visitor Rights and Responsibilities to enable Penn State to protect its values while fully supporting 1st Amendment rights and Title VI protections for all university stakeholders

  - In collaboration with Faculty Senate, launched Joint Standing Committees on Artificial Intelligence and Faculty Safety
  - Launched Provost's Endorsement Program to provide faculty with credentialed professional development opportunities
  - Launched Provost's Post-doctoral Fellowship Program to diversify Penn State Post-docs and faculty
  - Launched high-DFW task force to address student persistence and close demographic achievement gaps
  - Created task force to create Interdisciplinary Schools that will reinvent interdisciplinary undergraduate education via academic programs that bridge traditional disciplines to prepare students for careers addressing the most impactful topics, such as sustainability, artificial intelligence, neural science and engineering, and visual art, science and technology
  - Elevated equity and inclusion expectations across Penn State, including the use of *Equity Moments* at the beginning of every leadership meeting and new faculty search guidelines
- ***Led Penn State College of Engineering (2017-2022)***
  - 13 academic departments
  - Over 400 faculty and 400 staff
  - Over 10,000 students at University Park[2] and World Campus
  - ~$300M in annual expenditures
  - Over $420M endowment
  - Over 110,000 living alumni
- ***Organizational impact – College of Engineering***
  - Diversified College tenure-line faculty, nearly doubling the number who identify as African-American/Black, doubling the number identifying as Latino/a, and increasing the number of faculty who identify as female by over 75%
  - Grew College endowment by over $200M, including one of the largest gifts in the College's history ($15.5M) to establish the Clark Scholars Program
  - Grew College research expenditures and awards by over 50% over five years
  - Led development and implementation of College Strategic Plan, building on four cornerstone themes: *Excellence, Equity, Sustainability, and Social Mobility.*
  - Led development and implementation of College Facilities Master Plan, leading to two new buildings providing 395,000 square feet of new academic, research and student support space, transforming the College's footprint on campus. The $313M projects are on-mission, on-time and under budget.
  - Led transformation of the College Promotion and Tenure Criteria using an open-source process engaging all College tenure-line faculty. The new criteria focus on faculty impact and motivate faculty to focus on their impact and to aim for the highest levels of achievement.
  - Led College rebranding and transformation of marketing & communications, focusing our attention on engineering's role in impacting the world through university-wide multidisciplinary research and education
  - Led successful ABET accreditation with 19 programs and no shortcomings or weaknesses
  - Led tenure-line faculty co-hiring initiatives, including co-hires with the Applied Research Laboratory, School of International Affairs, Penn State Law, and between various departments in the College of Engineering. These initiatives establish the College of Engineering as a campus-wide leader while reducing barriers to inter-college faculty collaborations.
- ***Engineering Equity Initiative***

[2] An additional ~2,000 undergraduates are in 2+2 engineering programs at the Commonwealth Campuses and will transition to University Park in their third year

  - Led the development and implementation of a College-wide Equity Action Plan, a holistic effort targeting significant and sustainable changes in College culture and demographics through cultural transformations and operational modalities, including alignment with new College promotion and tenure criteria and creating a broad definition of inclusion that goes beyond traditional minoritized groups in engineering
  - Created and successfully recruited new Associate Dean for Equity and Inclusion position, as a tenured role, elevating the importance of E&I to the highest level within the College
  - Diversified college leadership with first African-American Associate Dean, first Latino Department Head, first Latino Assistant Dean, first LGBTQ+ Department Head
  - Transformed college leadership and faculty hiring processes and protocols; established one of the most diverse and inclusive leadership teams of any R1 college of engineering in the U.S.
  - Led Penn State into the Partnership for Faculty Diversity program, creating a pipeline of post-doctoral researchers from minoritized groups and mentoring them to tenure-line faculty careers
  - Launched equity-centric faculty search process, resulting in expanded diversity in our faculty applicant pool and significant increased success in under represented faculty recruitment
  - Targeted corporate and alumni fund raising in support of equity
  - Created *Impact Scholars* program, transforming our scholarship awarding protocols, significantly improving female and under-represented minority yield
  - Created Allies program to engage entire college population as equity partners
- ***Clark Scholars Program***
  - Secured $25M endowment ($15M gift from the A. James and Alice B. Clark Foundation and $10M from Penn State) to support 40 full-time undergraduate students
  - Clark Scholars are a visible, cohesive cohort who have shown a drive to succeed academically and a willingness to seize opportunities in their lives and their schooling.
- ***Interdisciplinary-initiatives***
  - Created *Law, Policy and Engineering Initiative*, bringing together faculty from the College of Engineering, Penn State Law, and Penn State School of International Affairs
    - Developed integrative academic degree programs for undergraduate, graduate and professional students, including Master's of Engineering in Engineering, Law and Policy, and multiple Integrated Undergraduate-Graduate degree programs with the School of International Affairs
    - Establish research and scholarly collaborations across engineering disciplines
  - Led partnership with the United Nations to renew and expand the *Global Building Network*
  - Expanded the Center for Neuroengineering in partnership with the Huck Institutes for Life Science
  - Strengthened relationships with College of Medicine, College of Health and Human Development, and Eberly College of Science through multiple, strategic faculty co-hires
  - Launched Project Drawdown-Penn State Partnership
    - Partnered with Penn State's Institutes for Energy and the Environment to build relationship with Project Drawdown, establishing Penn State as Drawdown's primary academic partner
    - Served as a member of Project Drawdown "Braintrust" Advisory Panel
    - Created Project Drawdown Research Experiences for Undergraduates Program
    - Co-Chair of the 1st International Conference on Drawdown — Research to Action: The Science of Drawdown
  - Launched College of Engineering Sustainability Council as part of the Penn State Sustainability Institute campus-wide initiative
- ***College undergraduate success initiatives and transformations***
  - Transitioned entrance-to-major from four semesters to two semesters

  - Launched "Exposure to Major" Initiative, including video content to inform students and parents of high school and early-career undergraduate students about the impact of engineering disciplines
  - Launched Engineering Connect pilot program with an aim to address the largest obstacles to success for incoming engineering undergraduates at University Park and the Commonwealth Campuses throughout their first year
  - Initiated Return to Intern internships program to serve international undergraduate students
  - Launched transformation of 1st/2nd year engineering curriculum
    - Engage all engineering students in hands-on engineering design
    - Expose all engineering students to the breadth of the engineering discipline
    - Infuse equity, diversity and inclusion into undergraduate curricula
- ***College research growth initiatives and transformations***
  - Launched seed grant programs to
    - Re-engage mid-career faculty with low research output
    - Encourage highly successful faculty to expand into higher-risk, higher-payoff areas
    - Encourage faculty to pursue large interdisciplinary research centers such as the NSF ERC and STC programs
    - Increase collaborations with the College of Medicine
    - Increase interdisciplinary research
    - Advance commercialization of faculty IP towards commercialization
  - Established processes to quantify seed grant return-on-investment
  - Restructured College's Corporate and Industry Engagement
    - Concierge relationship-building to support research, philanthropy and career services
    - Expanded College Industry and Professional Advisory Committees via matrix structure to continue department-centric committees while also engaging in college-wide initiatives
  - Launched and seeded new interdisciplinary research centers/consortia
    - Consortium on Integrated Energy Systems
    - Center for Radar Engineering, Science, and Technology
    - Center for Gas Turbine Research, Education, and Outreach
    - Center for Biodevices
    - Center for Artificial Intelligence Foundations and Engineered Systems
    - Center for Neurotechnology in Mental Health Research
- ***College commitment to defense research, development, and education***
  - Created and successfully hired College of Engineering Defense Liaison
  - Reinvigorated College relationship with the Applied Research Laboratory
    - Launched new tenure-line faculty co-hire program and recruited two new tenured faculty
    - Growing collaborative research
    - Streamlining Affiliate status and graduate standing in CoE for ARL faculty
- ***University service***
  - Global Academic Leadership Council
  - Chair, Council of Academic Deans (2020-22)
  - Strategic Budget Task Force
  - Executive Committee, Institutes for Energy and the Environment
  - Executive Committee, Huck Institutes for Life Science
  - Executive Committee, Institute for Computational and Data Sciences
  - Chair, Senior Vice President for Research Search Committee
  - Academic Leadership Forum Planning Committee
  - Corporate Relations Committee

- Conflict of Interest Committee
- Information Technology Executive Advisory Council

North Carolina State University

- Led NCSU MSE department of 28 FTE tenure/tenure-track faculty, 35 technical and non-technical staff, and ~300 students
- Grew NCSU MSE faculty by 47%, including significant diversification
  - Fourteen tenured/tenure-track faculty additions (74% success rate)
  - Eleven successful retentions of faculty with outside offers (100% success rate)
  - Increased under represented group faculty from 10% to 30%
  - Six Assistant Professors combined to win eight NSF CAREER and DoD YIP awards
- Grew graduate program by 95% while increasing student quality and percentage of domestic students
- Grew undergraduate program by 200%, while increasing female population to >30%
- Improved graduate program ranking from 31 to 15
- Improved undergraduate program ranking from >25 to 16
- Grew departmental endowment by >100%
- Grew research awards and expenditures over 100% over four years
- Co-led inter-college Cluster Hire in Carbon Electronics
- Established Distinguished Lecture Series; hosted speakers including John Cahn and Mildred Dresselhaus
- Launched new M.S. Nano Engineering program
- Successfully led ABET review, receiving full accreditation
- Expanded undergraduate program to include a biomaterials concentration; nanomaterials concentration currently under development
- Revamped undergraduate laboratories into a departmental "showpiece"
- Recruited new corporate partners for Senior Design and summer high school camps
- Led the Analytical Instrumentation Facility (AIF), a shared user facility with 10 FTE staff, through an organizational transition
- Expanded NCSU AIF capabilities with over $6M in new equipment acquired with federal, state and university funds

Florida State University

- Led Cluster Hire Initiative in Materials Processing, Growth and Characterization, a multidisciplinary initiative that added four new faculty members specializing in materials research; two of the four hired are female. New faculty hired with appointments in Physics, Chemical Engineering, Mechanical Engineering and Industrial Engineering
- Led initiative with NHMFL educators and high school teachers to develop and implement a secondary school curriculum in superconductivity

AWARDS AND HONORS

- Distinguished Alumni Award, University of Illinois Urbana-Champaign, Department of Nuclear, Plasma, and Radiological Engineering, 2024
- National Academy of Inventors, 2023
- Keynote Speaker, Enniscorthy Forum High Performance Building Initiative Symposium, Impact Strategies for the United Nations High Performance Building Initiative, 2022 Clean Energy Ministerial, 2022
- Academic Ally Award, Impact.Engineered, ASME, 2021
- John Bardeen Award, TMS Functional Materials Division, 2018

- Commencement Speaker, Penn State University Graduate College, May, 2018
- Douglas D. Osherhoff Distinguished Lecturer, Universidad Autonoma Cuidad Juarez, Instituto De Ingenieria Y Tecnologia, Mexico, November, 2017
- Plenary Speaker, IEEE International Conference on Applied Superconductivity and Electromagnetic Devices, Shanghai, China, 2015
- Fellow, ASM International, "For the advancement of high temperature superconductors and their applications as well as supporting the fledgling superconducting materials technology industrial base, and for advancing diversity in materials science and engineering," 2015
- Fellow, American Association for the Advancement of Science (AAAS), "For distinguished contributions to the field of applied superconductivity, particularly for the advancement of high magnetic fields and for the integration of experiment and computation," 2015
- IEEE Council on Superconductivity Award for Significant and Sustained Contributions to Applied Superconductivity, 2014 (highest award from the IEEE Council)
- 2013 Van Duzer Prize, for best paper in the *IEEE Transactions on Applied Superconductivity*, IEEE Council on Applied Superconductivity (awarded in 2014)
- 2012 Van Duzer Prize, for best paper in the *IEEE Transactions on Applied Superconductivity*, IEEE Council on Applied Superconductivity (awarded in 2014)
- NCSU Alumni Association Outstanding Research Award for 2012-13 (awarded in 2014)
- Papers selected as a *Superconductor Science & Technology* Highlight six times from 2013-2016
- Plenary Speaker, IEEE International Conference on Applied Superconductivity and Electromagnetic Devices, Beijing, China, 2013
- North Carolina State University Diversity Award, 2011
- Plenary Speaker, 20th International Conference on Magnet Technology (IEEE Conference), 2007
- Special Award for Exceptional Service, FAMU - FSU College of Engineering, 2007
- Engineering Research Award, FAMU - FSU College of Engineering, 2005
- Fellow, IEEE, "for contributions to high temperature superconductors and magnet systems," 2004; one of youngest Fellows in IEEE history
- Engineering Research Award, FAMU - FSU College of Engineering, 2001
- Plenary Speaker, Korean Superconductivity Society, KSS2000, South Korea, 2000
- Roger W. Boom Award, Cryogenic Society of America, 1998
- Developing Scholar Award, Florida State University, 1996
- Nuclear Engineering Students Award for Undergraduate Teaching, 1991
- NSF/Science and Technology Agency of Japan Fellowship, 1990
- Magnetic Fusion Energy Technology Fellowship, U.S. Department of Energy, 1985-1990

PROFESSIONAL SERVICE ACTIVITIES - EXTERNAL

- Strategic Advisory Board, Enniscorthy Forum, 2023–present
- Society for Hispanic Professional Engineers Academic Partnership Council, 2022–2023
- Invited panelist, United Nations Economic Commission for Europe Cyber Monday Virtual Panel on High Performance Buildings, April 2021
- Invited panelist, MIT Forum for Equity: Equity in Engineering Education, February 2021
- Co-led Big10+ Deans effort to infuse equity and inclusion in engineering curricula via collaboration with ABET and ASEE, 2020–2022
- Member, National Academy Defense Science Deans' Roundtable Linking Academic Engineering Research and Defense Basic Science, 2019–2022
- ASEE International Committee, 2019–2022
- Advisor, Project Drawdown, 2018–2020

- Department reviewer, Dept. of Materials Science and Engineering, University of Virginia, 2021
- Department reviewer, Dept. of Materials Science and Engineering, University of Central FL, 2019
- Department reviewer, Dept. of Materials Science and Engineering, University of Florida, 2016–2017
- Invited Speaker and Panelist, TMS Diversity Summit, 2016
- Advisory Board, *Superconductor Science & Technology*, 2015–2018
- Scientific Program Committee, International Conference on Magnet Technology, Korea, 2015
- Invited Panelist, Symposium on "The Future of Materials Science and Engineering: An Industry Perspective," Georgia Tech, May 2013
- Board of Visitors, Army Research Office, Materials Science Division, May 2013; Chair, May 2015
- Chair, Graduate Program Review, Dept. of Materials Science and Engineering, Virginia Tech, 2013
- Chair, Workshop on Ethnic Diversity in Materials Science & Engineering, December 2012
- CERN, Academic Training Instructor on Applied Superconductivity, June 2012
- Advisory Board member, Department of Materials Science and Engineering, Virginia Tech, 2012–2016
- University Materials Council
  - Executive Committee, Elected At-large member, 2011–2013
  - Vice-Chair, 2013–2014
  - Chair, 2014–2015
  - Gender Equity Committee, 2010–2017
- IEEE
  - Council on Superconductivity, Fellows Committee, Vice-Chair, 2013-2014; Chair, 2015–2018
  - Editor-In-Chief, *IEEE Transactions on Applied Superconductivity*, 2005–2012
  - International Steering Committee, 2015 ASEMD
  - Associate Editor, IEEE Technology News, 2010–2012
  - Council on Applied Superconductivity, Fellow Review Committee, 2011–2013
  - Representative of the Council on Superconductivity to the Board of Trustees of the Federation of Materials Societies, 2007–2011
  - Editor for Magnets and Magnet Applications, *IEEE Transactions on Applied Superconductivity*, 1998–2005
  - Member of the Council on Applied Superconductivity Executive Committee, 1998–2017
  - Chair, Van Duzer Prize Selection Committee, 2006–2012
  - Technical Committee on Electronic Publishing, 2000–2002
  - Distinguished Lecturer Committee (Chair), 2001–2002
- Applied Superconductivity Conference, Incorporated (a 501(c)(3))
  - Chairman of the Board and Conference Chairman, 2002–2004
  - Board of Directors Executive Committee, 1999–2004
  - Board of Directors, 1996 - 2008
- Materials Research Society
  - MRS Medal Selection Committee, 2014 – 2018
  - Broadening Participation Subcommittee, 2015– 2018
  - Co-Chair, Acta Materialia Gold Medal Forum: Frontiers in Thin-Film Epitaxy and Nanostructured Materials, 2011 Spring Meeting
  - Editor, Journal of Materials Research, Focus Issue: Frontiers in Thin-Film Epitaxy and Nanostructured Materials, 2013
- MS&T 2011, co-Chair, Acta Materialia Gold Medal Symposium, Columbus, Ohio, USA, October 16-20, 2011
- ASM Honorary Membership Committee, 2009 – 2011

- International Advisory Board, 6th International Conference "Science and Engineering of Novel Superconductors" of the 5th Forum on New Materials
- Review Panel Member, Naval Research Laboratory, Advanced Functional Oxides, 2007
- European Conference on Applied Superconductivity
    - International Advisory Board, 2012 - 2013
    - Board of Directors, 2002 - 2008
- Review Panel Member, Director's Review of the Fermilab High Field Superconducting Magnet Program, 2006
- U.S.-Japan Workshop on High-T_c Superconductors
    - Chair, U.S. Delegation, 1996-1999; Workshop Chair, 1997; Proceedings Editor, 1997
- International Advisor to the 2007 International Conference on Magneto Science
- Manuscript reviewer for *Nature Communications, Journal of Applied Physics*, *Applied Physics Letters*, *Journal of Materials Research, Superconductor Science and Technology*, *Journal of Physics and Chemistry of Solids, Physica C*, *Advanced Materials*, *IEEE Transactions on Vehicular Technology, Journal of Physics D: Applied Physics, IEEE Transactions on Applied Superconductivity*, *IEEE Transactions on Magnetics, Cryogenics*
- Proposal reviewer for the National Science Foundation, U.S. Department of Energy, ARPA-E

LEADERSHIP TRAINING

- "Understanding and Managing Behavioral Differences," Tracom Group Social Style training program, 2015
- Strategic Leadership Training Program, NCSU, 2012-13

PROFESSIONAL SERVICE ACTIVITIES – NCSU AND FSU

- Women and Minority Engineering Programs National Advisory Board, NCSU College of Engineering, 2017
- Eastman Chemical Center of Excellence Research Steering Team, 2012–2017
- Reactor Safety and Audit Committee, 2012–2017
- Council on the Status of Women, 2011–14
- Biomedical Engineering Graduate Program Review Committee, 2011
- Vice Chancellor's Task Force on Shared Facilities for Materials Research, 2010–12
- Physical Environment Committee, 2010–12
- Led FSU Cluster Hire Initiative in Materials Processing, Growth and Characterization, 2006–2009
- FSU GAP Committee, 2005–2009
- NHMFL Fellowship Committee, 2004–2005
- Panel Member, Council on Research and Creativity Grant Writing Workshop, 2004
- Mechanical Engineering Faculty Search Committee, 2002-2003; Co-chair 2003–2004
- Co-Chair, Magnet Science & Technology Steering Committee, 2003
- Magnet Science & Technology Director Search Committee, 2003
- Co-Chair, Committee on Expanding Corporate Research Support, 2002–2003
- Liaison on research to the Mechanical Engineering Advisory Committee, 2002–2004
- Chair, Center for Advanced Power Systems Research Committee, 2002–2004
- Center for Advanced Power Systems Budget Committee, 2002–2003
- FSU Promotion & Tenure Committee, 2002–2003; 2003–2004
- College of Engineering Promotion & Tenure Committee, 2002–2003; 2003–2004 (chair)
- Senior Research Advisor to the Vice President for Research, 2001-02

- Council on Research and Creativity, 1997–2000; 2001–2002
- Biomedical Activities Committee, 2001–2003
- Committee on Future Research Directions, 2001–2002
- FSU representative on the Southeast University Research Association, Council on Materials Science and Engineering, 1994–1997

RESEARCH AND GRADUATE ADVISING ACCOMPLISHMENTS

Professor Schwartz's primary research focus is on the underlying science that drive performance and system integration of superconducting magnets, optical fiber distributed sensors, and magnetic and multiferroic materials. His research focuses on system-issues that advance new discoveries into viable new technologies, and is thus cross-disciplinary, integrating physics and chemistry of novel materials with mechanical, electrical, magnetic, thermal, and systems issues. His research has impact on systems important to defense, energy, medicine, and basic science.

Professor Schwartz has been issued seven patents and one current provisional patent, published four book chapters, and well over 300 peer-reviewed journal articles and conference proceedings in the top venues in his field.

Professor Schwartz's research is recognized world-wide, and he has been invited to give well over 100 plenary speeches, conference presentations, and public seminars across the United States, Europe, Asia and South America, and at the United Nations. His laboratory was highly sought-after for visiting scientists from around the world, and he has hosted visiting scholars from thirteen countries across three continents.

Professor Schwartz has been actively engaged as a collaborator and consultant to industry research and development efforts at large and small corporations as well as start-up companies seeking technical advice. He has co-founded two spin-off companies.

Professor Schwartz has been the primary advisor to fifty graduate students, including twenty female and eleven from minoritized groups. He has graduated 33 Ph.D. students who are now employed at universities, industry, and national laboratories, including many in key leadership positions. He has also mentored over 20 post-doctoral research scientists.

Professor Schwartz has received over $23M in research funding from the U.S. Army, Navy, Air Force, Department of Energy, ARPA-E, National Science Foundation, National Institutes for Health, General Motors, General Electric, Nothrop-Grumman, and many small businesses.