

Rudolph G. Buchheit, Ph.D.**University Contact**

University of Kentucky
College of Engineering
353 Ralph G. Anderson Building
Lexington, Kentucky 40506

Executive Summary

Senior academic executive with more than fifteen years of experience in progressively responsible leadership roles at large, complex R1 universities. Proven record of advancing institutional academic missions through collaborative leadership, shared governance, faculty affairs, research growth, student success initiatives, interdisciplinary program development, capital planning, and philanthropy. Extensive experience working with faculty governance bodies, boards, donors, state agencies, and national organizations. Nationally and internationally recognized scholar and educator with demonstrated ability to integrate academic excellence, access, and public impact.

Core Academic Leadership Competencies

- Chief academic leadership and shared governance within a land grant flagship institution
- Faculty recruitment, promotion, tenure, retention, post-tenure review, evaluation, and compensation equity.
- Undergraduate, graduate, and professional education strategy and assessment.
- Academic policy development and implementation.
- Research administration, compliance, and interdisciplinary institute development.
- Graduate education funding models and doctoral student success.
- Student success, access, retention, completion, and experiential learning.
- Enrollment management collaboration and workforce alignment.
- Budget management, academic resource allocation in hybrid and responsibility-centered budget models.
- Facilities planning, space governance, and capital project oversight.
- External relations, advancement, public-private partnerships, and government engagement.

Senior Academic Administrative Appointments

University of Kentucky

2020–Present **Dr. Rebecca Burchett Liebert Dean of the College of Engineering (Endowed)**

2018–Present **Dean, College of Engineering.** Chief academic and administrative officer of a comprehensive engineering college at a public R1 university. Responsible for academic programs, faculty affairs, research and graduate education, budget, facilities, advancement, and external partnerships. Member of the University’s senior academic leadership team.

Academic Programs and Curriculum Innovation

- Led development, internal governance approval, and state authorization of new academic programs and certificates including undergraduate and graduate degree programs in Artificial Intelligence, Aerospace Engineering (BS/MS/PhD), Biomedical Engineering, Engineering Technology, and interdisciplinary graduate programs with Medicine and Business.
- Advanced interdisciplinary curricula integrating engineering, data science, health sciences, and business.
- Maintained continuous ABET accreditation across all undergraduate programs through outcomes assessment and continuous improvement processes.
- Expanded degree offerings to extended campuses and online/hybrid modalities to improve access, workforce alignment, and regional economic development.

Faculty Affairs, Governance and Inclusive Excellence

- Led recruitment of 75 tenure-track faculty in seven hiring cycles, maintaining nationally normed student–faculty ratios at the college level.
- Improved faculty diversity through intentional recruitment strategies, inclusive search practices, and leadership accountability.
- Implemented compensation equity adjustments and strengthened faculty evaluation, workload, and post-tenure review frameworks.
- Appointed and evaluated department chairs; supported leadership development for academic administrators.
- Worked closely with Faculty Senate leadership, college and department councils, and university governance committees on academic policy and curricular matters.

Research and Graduate Education

- Doubled annual research expenditures from FY2019 to approximately \$60M through strategic faculty hiring, infrastructure investment, and proposal development support.
- Launched major interdisciplinary research initiatives, including a \$50M multi-institutional additive manufacturing collaboration and new research institutes aligned with national priorities.
- Supported large-scale federal awards from NSF, DoD, DOE, and other agencies.
- Established a \$14M endowment to support graduate education, doctoral fellowships, and early-stage research initiatives.
- Strengthened graduate program oversight, enrollment planning, and time-to-degree outcomes.

Student Success and Access

- Sustained undergraduate enrollment growth while improving retention and graduation outcomes.
- Improved third-semester retention and six-year graduation rates for engineering students.
- Expanded international partnerships, undergraduate research participation, co-op, internship, and experiential learning pathways.
- Supported student wellness, advising, and career-readiness initiatives in collaboration with student affairs and enrollment management units.

Budget, Facilities and Infrastructure

- Provided planning and fundraising leadership for \$40M and \$120M capital projects dedicated to expansion of academic, research, and student facilities.
- Oversaw construction and renovation of teaching laboratories, research facilities, maker spaces, and student-centered environments.
- Participated in university-wide space planning, utilization, and prioritization processes.
- Managed operating and capital budgets in alignment with institutional priorities and strategic plans.

External Relations and Advancement

- Secured the largest naming gift in university history at that time and more than \$165M in campaign commitments.
- Cultivated research, recruiting and philanthropic partnerships with industry, alumni, and state agencies.

The Ohio State University

2014–2018

Associate Dean for Academic Affairs and Administration, College of Engineering. Provided college-wide leadership for faculty affairs,

academic administration, facilities planning, and strategic initiatives within a top-tier engineering college.

- Coordinated recruitment of 105 faculty supported by \$15M in permanent budget and \$35M in startup investments.
- Significantly improved faculty diversity and cohort hiring outcomes.
- Oversaw facilities portfolio exceeding 1.2 million square feet.
- Led academic policy implementation, faculty development, and disciplinary processes.

2006–2014

Chair, Department of Materials Science and Engineering

- Expanded tenure-track faculty from 22 to 41.
- Sustained annual research expenditures of \$12–16M.
- Led interdisciplinary hiring and shared research infrastructure development.
- Increased undergraduate and graduate enrollment substantially.

Academic and Professional Appointments

University of Kentucky

2018–Present Professor, Chemical and Materials Engineering

The Ohio State University

2003–2018 Professor, Materials Science and Engineering
1997–2003 Associate Professor, Materials Science and Engineering

Sandia National Laboratories

1990–1997 Senior Member, Technical Staff Materials and Process Sciences Division

Education

Ph.D., Materials Science, University of Virginia
M.S., Materials Science, University of Virginia
B.S., Engineering Science, Loyola University Maryland

University-wide Service (selected)

- Co-Organizer, Provost’s Retreat on Faculty Governance
- Co-Chair, Search Committee for Vice President for Philanthropy and Alumni Engagement

- Chair or Member, Dean and Senior Administrator Search Committees
- Member, University Strategic Planning Committee
- Member, Senate Advisory and DEI Leadership Committees
- Member, Economic Development and Smart Campus Initiatives

National and Professional Service (selected)

- Member, American Society of Engineering Education Public Policy Colloquium Organizing Committee
- Co-Convener, Southeastern Conference Engineering Deans Council
- Past Chair and Executive Committee Member, University Materials Council (international academic leadership body)
- Program Evaluator, Accreditation Board for Engineering and Technology (ABET)
- Leadership roles within The Electrochemical Society and National Association of Corrosion Engineers
- National service on diversity, faculty recruitment, and academic leadership initiatives
- Reviewer and advisor for federal agencies, professional societies, and academic publishers

Scholarly Profile (summary)

Internationally recognized scholar in corrosion metallurgy and corrosion electrochemistry whose research career provides credibility and perspective for leading a comprehensive academic enterprise. Maintains an active understanding of the research lifecycle from faculty recruitment and mentoring to proposal development, compliance, infrastructure investment, and scholarly dissemination.

- 285 total publications including peer-reviewed journal articles, books, book chapters, patents, and refereed conference proceedings.
- Google Scholar h-index: 61; total citations exceeding 18,700.
- Author or co-author of multiple publications cited more than 1000 times.
- Sustained record of federal, industry, and foundation-supported research.
- Extensive experience mentoring doctoral students, postdoctoral researchers, and early-career faculty.
- Editorial leadership for major international journals and conference series (Complete scholarly CV, funding history, and publication list available upon request).

Honors and Recognitions (selected)

- World's Top 2% Scientists (Stanford University/Clarivate Analytics).
- H.H. Uhlig Award, The Electrochemical Society.
- Fellow, The Electrochemical Society.

- Fellow, National Association of Corrosion Engineers.
- Outstanding Peer Mentor Award, The Women's Place, The Ohio State University.
- Multiple college- and university-level awards for research excellence, teaching, and mentoring.
- Departmental, college, and professional society honors recognizing leadership and service.

Additional Leadership and Governance Experience

- Extensive experience briefing presidents, provosts, boards, and external stakeholders on academic strategy, budget priorities, and capital investments.
- Regular engagement with state agencies, legislators, and system-level leadership on workforce development, research infrastructure, and economic development initiatives.
- Leadership of cross-college initiatives requiring alignment of academic priorities, resources, and governance processes.
- Experience navigating academic change management in environments characterized by shared governance and diverse disciplinary cultures.

Teaching and Educational Leadership (selected)

- Instructor of undergraduate and graduate courses in engineering leadership, materials science, and corrosion science.
- Designer and instructor of short courses and professional education programs for industry and government audiences.
- Advocate for evidence-based pedagogy, experiential learning, and integration of research into undergraduate education.

Collaborative Leadership & Institution-Building (as Dean/Senior Executive)

- **Built and co-led cross-college academic partnerships** resulting in new interdisciplinary degree programs and certificates, including joint initiatives with the College of Medicine, Gatton College of Business and Economics, and the UK extended campus.
- **Forged major multi-institutional research collaborations**, including a \$50M additive manufacturing partnership with the University of Tennessee–Knoxville and the U.S. Army Research Laboratory, and a \$4M/year Institute for Decarbonization and Energy Advancement engaging federal, academic, and industry stakeholders.
- **Partnered effectively with central administration, faculty leadership, and external advisors** to secure ABET reaccreditation for

all undergraduate programs and to align new program launches with university-wide strategic priorities.

- **Collaborated with state leaders, industry partners, and alumni** to secure transformative philanthropic investments, including the largest single gift in the history of the University of Kentucky and multiple endowments supporting research, graduate education, and faculty excellence.
- **Led inclusive, collaborative governance processes**, revitalizing college committees, staff councils, and diversity initiatives while working constructively with faculty senate, department chairs, and shared governance bodies.

Faculty and Research Collaboration

- **Nucleated interdisciplinary research clusters through joint faculty recruitment**, integrating materials science with biomedical engineering, aerospace, electrical and computer engineering, mechanical engineering, architecture, and data science.
- **Built sustained research partnerships across academia, national laboratories, and industry**, resulting in major NSF and DoD awards, long-term federal funding, and translation of fundamental research into applied technologies.
- **Collaborated internationally with faculty and research institutions** in Australia, Europe, and Asia, including co-advised doctoral students, visiting scientist appointments, and joint publications.
- **Created shared research infrastructure** by aggregating resources across units to establish high-end facilities (electron microscopy, additive manufacturing, heritage science) that support multi-PI, multi-department research teams.

Collaborative Faculty Development

- **Partnered with faculty leaders and national organizations** to advance equity-minded recruitment, serving as NSF-funded Advocate Coordinator and leading initiatives to engage majority allies in faculty advancement.
- **Worked collaboratively with department chairs and search committees** to recruit diverse faculty cohorts, significantly increasing representation of women and underrepresented groups in engineering.
- **Mentored faculty across career stages**, combining individual advising with structural changes to hiring, promotion, and workload policies developed in consultation with faculty governance bodies.

Industry, Government and External Engagement

- **Maintained deep, long-standing collaborations with industry,** advising companies across aerospace, automotive, coatings, energy, and advanced manufacturing on corrosion, materials performance, and reliability.
- **Worked closely with federal agencies and national laboratories** (NSF, DoD, DOE, ARL, Sandia) as PI, collaborator, advisor, and expert consultant.
- **Served on boards, advisory councils, and state commissions,** collaborating with policymakers, economic development leaders, and industry executives to align engineering education and research with workforce and economic priorities.

Teaching, Mentoring and Student Collaboration

- **Collaborated with students as research partners and leaders,** mentoring more than 20 PhD students, numerous MS students, and postdoctoral researchers--several in co-advised or interdisciplinary research arrangements.
- **Designed and taught leadership and professional development courses** that integrate perspectives from industry, alumni, and campus partners.
- **Supported student success through cross-unit collaboration,** aligning advising, retention initiatives, experiential learning, and industry engagement.