Herrick Labs Newsletter

VOLUME 34 NUMBER 1

FALL/WINTER 2019/2020

RAY W. HERRICK LABORATORIES

CHPB CENTER FOR HIGH PERFORMANCE BUILDINGS AT PURDUE

Inside This Issue

Patricia Davies Reflects on Her Tenure as Director of Herrick Labs

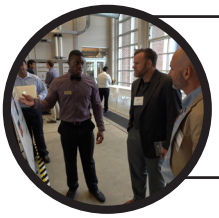
PAGE 4. Patricia Davies steps down as Director after 14 years

Jeff Rhoads Named New Director of Herrick Labs

PAGE 6. Jeff Rhoads named the new Director of The Ray W. Herrick Laboratories

Fall CHPB Meeting

PAGE 9. The Fall CHPB Meeting took place this past October 23-24



Fall Industrial Advisory Committee Meeting

PAGE 8. The Fall IAC Meeting took place this past October 24-26

Patricia Davies Receives the Violet Haas Award

PAGE 10. Patricia Davies was honored during a ceremony held December 5

Upcoming Events

May 21-22, 2020
Spring CHPB Members Meeting

July 12, 2020
Short Courses

July 13-16, 2020
Compressor, Refrigeration & Building Conferences

December 15-17, 2020
SAPEM - Symposium on the Acoustics of Poro-Elastic Materials

his Issue

2020 Purdue Conferences

PAGE 11. Official announcement of the 2020 Purdue Compressor Conferences, July 12-16

Obituary: M.G. Prasad

PAGE 12. The 1980 Ph.D. Herrick Graduate passed away November 25

People News

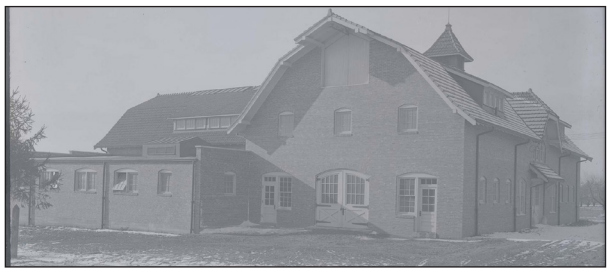
PAGE 13. 2019 Fall graduates and award recipients

The Future of The Herrick Labs Newsletter

PAGE 14. Changes to the distribution of the Herrick Labs Newsletter coming in 2020

Donate to Herrick Labs

PAGE 15. Information to make donations to The Ray W. Herrick Laboratories



The original Herrick Laboratories Building, 1912
From the J.C. Allen Collection, courtesy of Purdue University Libraries, Archives & Special Collections

The new Ray W. Herrick Laboratories Building, opened November 2013

A Message from Departing Herrick Director Patricia Davies

We, the team at the Ray W. Herrick Laboratories, have achieved a lot over the last 14 years, the term of my Directorship. It was possible because of the legacy of the former directors: Bill Fontaine, Ray Cohen and Bob Bernhard, who created and strengthened the foundations of the Herrick Laboratories, and the hard work, creativity, and dedication of the faculty, students and staff at the Laboratories.

Faculty who have been at the Laboratories for a while have worked with some companies for many years on different projects, and their industrial sponsors have become friends. Companies look to hire our students because of the strength of the students' education at Purdue, in the classroom, in their research, and through their interactions with sponsors. It is always a pleasure to see our students' growth from when they start at the Laboratories to when they graduate. At conferences, here at Purdue and elsewhere at our technical societies, it is always nice to interact with our former students and hear how much they valued their time at the Laboratories, not only because of the technical work, but also because of the friendships formed while being part of this community.

Bill's vision for a laboratory where a community of graduate students, faculty and technical support staff worked with industry on industry-relevant problems, is still at the core of what we do at the Laboratories today, though our funding base and application areas have broadened over the years.

Bill Fontaine's mode of operation, where all space and equipment is shared and we always try to accommodate each other's evolving research needs, is still practiced today. This is a very important part of the experience of working at the Laboratories. Students have to be more organized and students have to help each other. Helping other students has the reward of broadening their knowledge beyond their own research project. The technical support staff have to balance many demands on their time. Students working with the shop and being accommodating so everyone's needs can be met, is another part of the collaborative culture. The Herrick faculty also benefit from this community approach: funds go further and accommodation of each other's needs fosters collegiality, which makes our workplace more enjoyable, and makes it easier to put teams together to solve problems. When we interview potential new faculty, we always try to assess how community-spirited they will be. Our perspective is that by sharing we can achieve more together.

The Herrick Labs continue to be very successful. Here are some recent highlights. The NASA Resilient Extra Terrestrial Habitats Institute proposal that Prof. Shirley Dyke told the Industrial Advisory Committee about at the meeting last year, was funded. This is a large center activity involving several universities: Purdue University, the University of Connecticut, Harvard University, and the University of Texas San Antonio. From Herrick Labs, Shirley, Jim Braun, George Chiu and David Cappelleri are all involved. Neera Jain is part of a team just awarded an NSF grant on Cognitive Autonomy for Human Cyber-Physical Systems: Turning Novices into Experts. This is also an interdisciplinary, multi-university initiative. The University of New Mexico part of the collaboration is led by Meeko Oishi, an electrical and computer engineering professor. Neera and ME Associate Professor Tahira Reid have been studying how to measure human trust of machines, and in this research they will be using this knowledge to improve human-machine interaction. Jeff Rhoads and the PERC team led by Steve Beaudoin in Chemical Engineering ran another very successful energetic materials summit this summer, and the energetic materials research at Herrick in collaboration with Zucrow Labs' Professor Steve Son continues to grow. The Center for High Performance Buildings Consortium also continues to be very successful. Panagiota Karava, Davide Ziviani and Jim Braun have been designing with their research team a flexible, reconfigurable office test facility to be housed in the

Perception-based Engineering Laboratory. This facility will be used to understand how new approaches to lighting, heating and cooling in building environments impact occupant comfort. Eckhard Groll, recently appointed as Head of Mechanical Engineering, is heading up the 2020 Purdue Refrigeration, Compressor and High Performance Buildings Conferences organization team. With the help of Brian Barrett, Herrick Events Coordinator, we are in good shape for another set of successful conferences. Brian is also working with Stuart Bolton on the 2020 SAPEM conference related to the acoustics of poro-elastic materials which Herrick Labs will host next year in December.

Space for experimental research is a continuing challenge as the Laboratories grow. Our newer faculty hires have been successful at establishing their programs and Jeff Rhoads is currently heading a faculty search that is likely to result in more Herrick Laboratories faculty hires, and thus even greater demands for space. Without the new building, it would have been impossible to accommodate the faculty growth that was a result of the large expansion of student numbers in engineering.

Donna Cackley (administrative assistant) and Bob Brown (shop technician and building deputy) retired this year. Both have been at Purdue University for a very long time. Bob was at the Labs for over 30 years. We wish them well in their retirement. We welcome Robin Sipes, our new administrative assistant at the Labs., who joins us from the College of Science. To meet the increasing demand on the technical support team, we welcome two new shop members: Clint Terrell and Rob Hughes. Thanks to the HERE gift from the Herrick Foundation last year, we are also able to hire undergraduate engineering and engineering technology students to help the technical team. Charlie Baxter, Head of Technical Services, now has a team of four experienced technicians and three undergraduates. This helps us significantly in addressing the technical needs of the 28 professors and over 130 researchers at the Laboratories.

As we move forward, it feels a little like an action replay of what was going on at the start of my directorship when we were trying to raise money for the last expansion of the Labs. The old building is not in great shape and current thoughts are it will go away in the future. While I love the old building, we are continually running into limitations in utilities, infrastructure, and old HVAC&R systems that always seem to need repair. We are using all of the research space in the original building, and we have even repurposed some of the old office space for research. So, if it is to go away, there is a critical need for another new building, an expansion beyond the vision for the new Acoustics Wing. The fund raising, the NIST Construction Grant (an American Recovery and Reinvestment Act funded initiative), the design and construction of the 2013 HLAB building was a very interesting time for the Laboratories. The HLAB building was only possible because of the support of many people and organizations, a great vision for the high performance buildings research theme – perfected by Prof. Jim Braun over several large center proposals, and a willingness to keep trying – the construction grant proposal was funded only after several rounds of proposals. I wish Jeff Rhoads the very best as he takes over the Ray W. Herrick Directorship and addresses the next set of infrastructure expansion challenges.

PATRICIA DAVIES
Director of Ray W. Herrick Laboratories

Jeff Rhoads Appointed as New Director of Herrick Labs

In October we welcomed Jeff Rhoads as the new Director of the Ray W. Herrick Laboratories. Jeff brings his vast expertise and experience to this role. He joined Purdue as an Assistant Professor in the School of Mechanical Engineering in the fall of 2007, climbing the ranks to Full Professor with his dedication and commitment to his profession.

Jeff also serves as the Director of Practice for MEERCat Purdue: the Mechanical Engineering Education Research Center at Purdue.

Jeff recently stepped down as the Associate Director of the Purdue Energetics Research Center (PERC) but actively remains involved in the organization. PERC hosts a bi-annual event called Purdue Energetics Materials Summit that brings leaders in the defense, security, intelligence and academic communities to discuss key challenges and potential technical solutions involving energetics materials.

Jeff received his Ph.D from Michigan State in 2007 and has received various awards throughout his career including the Ferdinand P. Beer and E. Russell Johnston, Jr. Outstanding New Mechanics Educator Award, the National Science Foundation CAREER Award, and the Harry L. Solberg Best Teacher Award.

His research interests include Nonlinear Dynamics and Vibration, Energetic Materials, Additive Manufacturing, Engineering Education, Resonant Micro/Nanosystems, and Microscale Sensors and Actuators.

As the Director, Jeff will be more closely involved with the day-to-day operations of the Labs and will continue to build on the successes that have come through Patricia Davies' leadership, while upholding the Lab's mission and values and further strengthening the vision for the Labs.

Prof. Jeff Rhoads Addresses the Audience at 2019 PEMS

2020 Purdue Conferences

Compressor Engineering | Refrigeration and Air Conditioning | High Performance Buildings

JULY 12-16, 2020 • PURDUE UNIVERSITY, WEST LAFAYETTE, IN, USA

KEY TOPICS COVERED

- Positive Displacement & Dynamic Compressors
- HVAC&R System Components
- Alternative Refrigerants
- Advanced Controls for Building Systems & Equipment
- Heat Pumping Systems
- Intelligent Building Operations
- Indoor Environmental Quality
- NetZero Buildings
- Building Simulation and Energy Modeling
- Waste Heat Recovery
- Advanced Heat and Mass Transfer Technologies of HVAC&R
- Oil Management for HVAC&R Equipment
- Interaction of Buildings and Occupants
- Impacts of Building and Refrigeration Technologies on Global Warming
- Multi Physics Modeling
- Machine Learning

SHORT COURSES OFFERED JULY 12, 2020

- Compressor Modeling Short Course
- USNC/IIR Refrigeration Short Course
- Intelligent Building Operation (IBO) Workshop

CONFERENCE DEADLINES

January 17, 2020
Abstract Submission Deadline (Extended)

January 27, 2020
Abstract Acceptance Notification

April 6, 2020
Manuscript Submission Deadline

May 4, 2020
Manuscript Acceptance Notification

May 25, 2020
Pre-Registration ends;
Final Papers must be uploaded to Conftool

Visit **www.conftool.com/Purdue2020** to learn more about the submission process and requirements.

CONTACT INFORMATION

Brian Barrett, Event Planner
Ray W. Herrick Laboratories
Purdue University
177 S. Russell St.,
West Lafayette, IN 47907-2099
Ph: 765/494-6078, Fax: 765/494-0787
Conference E-mail: hlconf20@purdue.edu

ENGINEERING.PURDUE.EDU/HERRICKCONF

CONFERENCES: JULY 13-16, 2020 SHORT COURSES OFFERED JULY 12, 2020

NEXT CHPB MEMBERS MEETING: MAY 21-22, 2020

CHPB Fall Members Meeting October 23-24, 2019

This past October, industry members of the Center for High Performance Buildings (CHPB) visited Herrick Labs to receive updates on on-going research activities, discuss industry trends and present new project concepts. A wide variety of companies were represented at the meeting including Belimo, Carrier, Duke Energy, Emerson Climate Technologies, Goodman, GMCC, Gree, Honeywell, Ingersoll Rand, Trane, Johnson Controls, Kulthorn Kirby, Lennox, LG Electronics, Regal Beloit, Southern California Edison, and Whirlpool.

The meeting kicked off with the Project Monitoring Subcommittee meetings that focused on Equipment, Buildings & Integrated Systems, and Sensors & Controls led by Davide Ziviani, Orkan Kurtulus and Jeff Rhoads.

Day 1 concluded with a relaxed evening at Bistro 501 where members could mingle and enjoy the evening together.

Day 2 of the meeting featured the CHPB members-only meeting to select the 2020 projects for the year, followed by the CHPB Poster Competition and Evaluation.

The Center for High Performance Buildings is dedicated to partnering with industry in the development, demonstration, evaluation, and deployment of new technologies and analysis tools for high performance buildings.

The next CHPB Members Meeting will take place May 21-22, 2020.

For more information visit **engineering.purdue.edu/CHPB**

CHPB
CENTER FOR
HIGH PERFORMANCE
BUILDINGS AT PURDUE

Fall Industrial Advisory Committee Meeting: October 24-26, 2019

The 67th Annual Industrial Advisory Committee (IAC) meeting was held at the Laboratories October 24-26. Terry Manon, IAC Chairman, welcomed and introduced the members and guests. Patricia Davies followed with feedback from last year's IAC meetings and the breakout sessions.

Eckhard Groll, the William E. and Florence E. Perry Head of Mechanical Engineering, gave an update on the School of Mechanical Engineering. The work day ended with brief overviews of several research initiatives headed by Herrick faculty and a brainstorming session on the critical technical needs of the IAC's companies. The Thursday evening social event hosted at Lafayette Brewing Company provided an opportunity to celebrate outgoing Herrick Laboratories Director Patricia Davies.

Friday morning was the Student Poster Show. A Student Poster Show Revamp Committee was formed in 2018 to come up with a new format. The traditional abstracts were replaced with quad charts, which were used to create student posters. IAC members were assigned certain posters to provide feedback regarding their work and presentation. The IAC commented that the overall quality and content of both the posters and the presentations were the best that they've seen. In the afternoon, three breakout sessions were held on the following: (1) First-Year Graduate Student Mentoring, led by Patricia Davies; (2) Graduate Student Breakout Session, led by Travis Horton; and (3) Junior Faculty and IAC, led by Davide Ziviani and Marcial Gonzales.

Several IAC members were also able to attend the Saturday Purdue Homecoming Football game against Big Ten rival Illinois. Overall, it was another successful IAC meeting with lots of useful suggestions and great comments. Here are several pictures taken throughout the IAC meeting and Student Poster Show.

Patricia Davies receives Violet Haas Award

Patricia Davies, Professor of Mechanical Engineering, received the Violet Haas Award in a ceremony on Thursday, December 5.

The Violet Haas Award recognizes individuals, programs or departments at Purdue that have facilitated the advancement of women in hiring, promotion, education and salary, or have enhanced a positive professional climate for women at the University.

Presenting Patricia with the award was Jay Akridge, Provost and Executive Vice President for Academic Affairs and Diversity, and Mangala Subramaniam, Director of the Susan Bulkeley Butler Center for Leadership Excellence and Professor of Sociology.

The award is named for Violet Haas, an Electrical Engineering Professor from 1962 to 1986, who was instrumental in the early development of the Purdue chapter of the Society of Women Engineers. The award was established in 1990 by the Council on the Status of Women (CSW), an organization that sought to provide a voice for all women at Purdue University. The award is now administered by the Susan Bulkeley Butler Center for Leadership Excellence.

Patricia Davies has spent her career researching acoustics and noise control, and from 2005 to 2019 she served as the Director of Herrick Labs.

Patricia Davies receives the Violet Haas Award

Obituary: M.G. Prasad

Herrick Laboratories Alumni

Dr. Marehalli Gopalan Prasad, 69, passed away suddenly on Monday, Nov. 25, 2019, at his home in Maplewood, N.J.

Mr. Prasad was born in Hassan, Karnataka, India. He moved to the United States in 1977, residing in Maplewood since 1984.

He received his Ph.D. from Purdue University in Mechanical Engineering. His thesis was entitled “Acoustic Modeling of Automotive Exhaust Systems”, and was supervised by Malcom Croker.

He was a professor at Stevens Institute of Technology in Hoboken, N.J., from 1980 until his retirement in 2017. He was the recipient of several awards and honors such as the Faculty Award by the Office of Student Life at the Stevens Institute of Technology in 2003; Acoustical Paper Award by Nelson Industries in 1984; and was the advisor and coauthor of a student paper award by the International Institute of Noise Control Engineering in 1989.

He was also a member of several professional organizations such as the Institute of Noise Control Engineering, the Acoustical Society of America, the American Society of Mechanical Engineers, and the American Society of Engineering Education

He was very active in the Hindu community of the Tri-State area. He is survived by his wife, Geetha; two sons, Teju and Raju (Lindsey) Prasad, and granddaughters, Maya and Neela Prasad.

Obituary: James “Jim” Lally

Herrick Laboratories Industrial Advisory Committee Member (2001 - 2013)

Born in Springfield, Ill., he was the fourth of six children and the youngest of four boys. After his mother died in childbirth when he was 10, he helped look after and support his two younger sisters.

He earned a bachelor’s degree in business administration and management from Millikin University in Decatur, Ill., and took graduate studies in business management at the University of Illinois. Before graduate school, he served two years in the Army, then six years in the Army Reserve.

James F. “Jim” Lally came to Western New York in 1963 to join Kistler Instrument Co., a firm co-founded by his brother Robert, a former Bell Aircraft Corp. engineer. But when Kistler was sold and operations moved to Washington State four years later, the Lallys did not move with it.

Their focus was on high-tech sensing devices. Beginning in a basement, they started PCB Piezotronics, moved to a barn and eventually to a manufacturing plant on Walden Avenue in Depew.

At PCB Piezotronics, “customer service was his thing,” said his daughter-in-law Beverly Lally. “That’s what he hung his hat on.”

They applied integrated circuit technology to piezoelectric sensors that monitor pressure, sound and vibration in cars, planes, ships, power plants and industrial processes. PCB grew to more than 1,000 employees with facilities in Michigan, North Carolina, Ohio and Utah.

Mr. Lally became president and chief executive officer, stepping back to an advisory role about 10 years ago and serving as chairman of the board. All five of his sons held executive positions with the company before it was sold in 2016 to MTS Systems. He continued as an adviser for two more years.

A longtime Clarence, NY resident, he was devoted to his children and grandchildren and filmed all their sporting events and family gatherings on his video camera.

While his sons attended Clarence High School, he and his camera were a constant presence at football games. Three of his sons went on to play college football - John at Syracuse University, Michael at Cornell University and David at Bucknell University.

In 2015, he was presented with a lifetime achievement award at the 86th annual Shock and Vibration Symposium in Orlando, Fla.

The symposium program noted: “This award recognized Jim Lally’s years of dedication to providing dynamic sensor technology in blast, ballistics, shock, vibration, acoustics, strain, and dynamic force to the SAVE (Shock and Vibration Exchange) community. It also recognizes both his generous contributions to educational institutions and his professionalism in corporate interactions.”

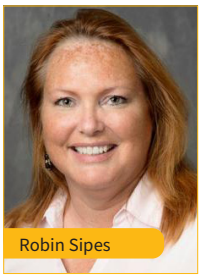
Herrick Happenings

New Herrick Staff Members

Robin Sipes Senior Administrative Assistant.

Robert Hughes Senior Engineering Technician.

Clint Terrell Senior Engineering Technician.


Robin Sipes


Rob Hughes

Current Student Honors & News

Daniel Carr (Two Laboratory Studies of People's Responses to Sonic Booms and Other Transient Sounds as Heard Indoors, Prof. Davies) and **Yongjie Zhuang** (Cone Programming Reformulation of Active Noise Control Filter Design, Prof. Liu) were joint winners of the Student Paper Competition at NoiseCon 2019.

Trevor Bird (Dynamic Modeling, Control, and Optimization of Micro-CHP Systems, Prof. Jain) was selected to receive the 2019 DSCC Energy Systems Best Paper Award.

Sansit Patnaik (Fractional-Order Elastodynamics for Nonlocal Attenuating Media, Prof. Semperlotti) received 1st place in the TCVS Student Paper Competition at ASME-IDETC 2019.

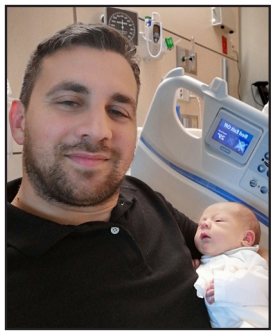
Xinye Zhang (Performance Analysis of Natural Gas Compressors for Residential and Commercial Applications, Prof. Groll) received 1st place in the Best Student Paper Competition at the 11th International Conference on Compressors and their Systems (2019).

Alumni News

Rich Widdle (PhD, 2005) started a new job at Boeing in September 2019 as a structural analysis engineer in Seattle. He is very much looking forward to working with this group again.

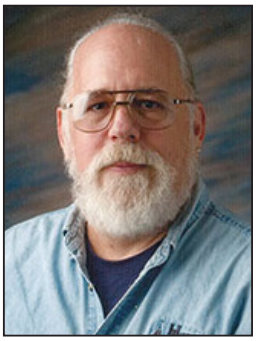
Births

Francesco Danzi and his wife welcomed home their new daughter Alice in August.



Retirements

Bob Brown retired from Herrick Labs in July after spending many years at Purdue. His retirement plans include home projects and spending more time riding his motorcycle. Herrick colleagues gathered at Bistro 501 to wish Bob a fond farewell. He will be greatly missed!



Herrick Happenings

Graduations

An, Ze (MSME, 2019). Agricultural Robotic Platform for In-row and Under Canopy Crop Monitoring and Assessment (Prof. Cappelleri). Ze is staying at Herrick as a consultant.

Guerrero, Ana de la Pena (PhD, 2019). Development of a Framework for Projecting Line-Haul Truck Technology Adoption and Greenhouse Gas Emissions in the U.S. using a System-of-Systems Methodology (Prof. Jain). Ana is now working for Cummins.

Joshi, Mrunal (PhD, 2019). Sensor Selection Frameworks for High BMEP Gasoline Engines (Prof. Shaver).

Lee, Seungjae (PhD, 2019). Development of Self-tuned Indoor Thermal Environments (Prof. Tzempelikos). Seunhjae is now employed at Oak Ridge National Lab.

Ma, Jiancheng (MSME, 2019). Reduced Order Modeling for Vapor Compression Systems via Proper Orthogonal Decomposition (Prof. Braun).

McConnell, Miranda (MSME, 2019). Additive Manufacturing of Nonmetallic Igniters (Prof. Rhoads).

Murray, Allison (PhD, 2019). Portable Integrated Microscale Sensors (Prof. Rhoads). Allison is staying at Herrick as a Post Doctoral Research Assistant.

Nash, Austin (PhD, 2019). Hierarchical Combined Plant and Control Design for Thermal Management Systems (Prof. Jain). Austin is staying at Herrick as a Post Doctoral Research Assistant.

Range, Allison (PhD, 2019). The Thermomechanical Response of Particulate Composite Energetic Materials Under Mechanical Vibration (Prof. Rhoads).

Thor, Weimin (MSME, 2019). Application of Statistically Optimized Near-Field Acoustical Holography (SONAH) in Cylindrical Coordinates to Noise Control of a Bladeless Fan (Prof. Bolton). Thor is currently an Associate Application Engineer with ESI North America.

Xiao, Yingying (PhD, 2019). Synergy: Plug-and-Plug Cyber-Physical Systems to Enable Buildings (Prof. Braun).

Xiong, Jie (PhD, 2019). An Adaptive Personalized Daylighting Control Approach For Optimal Visual Satisfaction and Lighting Energy Use in Offices (Prof. Tzempelikos).

Xue, Yutong (PhD, 2019). Structural Acoustics and Multi-Functional Noise Control Materials (Prof. Bolton). Yutong is currently the Senior Engineer in the Servo Dynamics R&D team at Seagate Technology.

Future of Herrick Newsletter

Beginning in 2020, the Herrick Newsletter will begin to take on a more frequent, digital form. Our goal for this change is to reduce the amount of printed issues and to provide a more frequent touch point for our alumni, students, donors, industry partners, and faculty. You'll still be able to download a printable version of the newsletter, but moving forward the newsletter will become a digital-only news piece. We encourage you to sign up by emailing Cindy Cory at **coryc@purdue.edu** or Brian Barrett at **barret71@purdue.edu** to register for the newsletter.

We also highly recommend you follow Herrick Labs on social media. We will be posting even more frequent news items regarding the Labs from our **Twitter account at @HerrickLabs** and from our **LinkedIn account at Herrick-Laboratories**.

We also encourage everyone to reach out to us with any other news items that you feel are relevant to Herrick. With the move to a digital newsletter we can provide more opportunities for you to let the Herrick family what is going on in your world.

Our plan is to begin phasing out the printed issues beginning with the summer edition of the newsletter. In the meantime, a digital version of the newsletter will begin to be sent out starting this spring, with the summer edition being the final printed issue of the newsletter.

Donate to Herrick Labs

Donations to the Labs are always welcomed and appreciated. If you're interested in making a donation, below is some helpful information for you. For all of you who have contributed in the past: our sincere thanks. Your gifts help to create groundbreaking research and set a wonderful path to the future. Thank you for coming on board!

Be sure you specify your gift is for Herrick Labs. You are also welcome to support a specific professor's research, or support a few established funds:

- Herrick Laboratories Building Fund
- Ray Cohen Excellence in Thermal Systems Fund
- Herrick Laboratories General Operations
- William E. Fontaine Student Fellowship Fund

Giving by mail? Send your check to the address on back page of this newsletter, payable to the Purdue Research Foundation, with "Herrick Labs" and any additional designation on the memo line. Want to make an online gift? You can find details at the website:

https://engineering.purdue.edu/ME/Giving/GivingGuide.

Specific questions about giving? (stock options, estate planning, deferred gifts, etc.) Purdue has philanthropy experts solely assigned to Mechanical Engineering who can help you! Contact the Director of Development, Scott Banfield at (765) 494-5629 or visit Mechanical Engineering's website at: **https://engineering.purdue.edu/ME/Giving/index_html.**

PURDUE UNIVERSITY

First Class
Presort Mail
U.S. Postage
PAID
Lafayette, IN
Permit No. 221

RAY W. HERRICK LABORATORIES

Purdue University
177 S. Russell Street
West Lafayette, IN 47906-2099
USA

Address Service Requested

News about You and Address Changes

We are always interested in hearing your news, like weddings, births, and job promotions, and we want to be kept up-to-date on current addresses. Please send notes to Cindy Cory or to the e-mail address below. Don't hesitate to let us know of other alums that have moved or changed jobs. Photos are always welcomed and encouraged.

Ray W. Herrick Laboratories
School of Mechanical Engineering
Purdue University
177 S. Russell Street
West Lafayette, IN 47907-2099
1-765-494-2132 (phone)
e-mail: rhlab@ecn.purdue.edu
https://engineering.purdue.edu/Herrick/

Please email Brian Barrett at barret71@purdue.edu to register for the digital Herrick Newsletter

Donate to support Herrick activities:
https://engineering.purdue.edu/ME/Giving/GivingGuide
for more information, or, just send a check written to "Purdue Foundation" marked "For Herrick Labs" and send to Jeff Rhoads at the above address.

PURDUE UNIVERSITY | Mechanical Engineering