

-Amelia Earhart





# encourage. support. connect. enrich.

# 50th ANNIVERSARY CELEBRATION: be\_aWE50me

The Women in Engineering Program (WIEP) held a special 50th anniversary celebration in March 2019. The weekend was rich with content, from interactive workshops to dynamic speakers to a historical video depicting the program's half a century of progress.

Friday evening featured an alum/faculty/student networking event, with a WIEP photo booth and Purdue Pete. On Saturday, students and alums heard a keynote from Kim Underhill, Group President, North America for Kimberly-Clark to kick off a professional development symposium. Alumnae provided the content for the 13 interactive workshops and sessions. We also recognized WIEP scholarship award winners during lunch. Saturday evening faculty, administrators, alums, and student leaders attended a graduate student research poster session and cocktail reception, and then celebration dinner with keynote speaker Leah H. Jamieson, Dean Emerita of the Purdue College of Engineering, and a longtime advocate for women in engineering. Also, at the dinner, four of the six past Directors of the Women in Engineering Program were present to unveil photography specially created to honor Amelia Earhart and Lillian Gilbreth, important women in the history of women in engineering at Purdue.

During the weekend celebration, one common theme repeatedly emerged: connections. Women of all ages and of all stages of their engineering educations and careers capitalized on the opportunity to connect with each other personally and professionally.

We can all 'be awesome' because we have a strong foundation from Purdue, and we have each other to continue to build us up. Sister to sister, mother to daughter, alum to student, peer to peer – these are the connections that make us strong, that make us resilient, that enable us to 'be awesome.'"

— Beth Holloway, PhD Leah H. Jamieson Director of Women in Engineering









# be you. be awesome.

Cover Photo: To commemorate the event, each attendee was given a poster to take home. The design highlighted New York -based photographer Paul Lange's capturing of flowers to represent Amelia Earhart and Lillian Gilbreth, both of whom hold historical importance within Purdue Engineering as women trailblazers in their respective fields.

- 1 Sisters and CoE students Ann Roach (L) and Laura Roach interact with Kim Underhill, group president, North American, for Kimberly-Clark. Underhill gave the Saturday morning keynote address. Kimberly-Clark sponsored the weekend's events.
- 2 Women in Engineering Program student leadership team members (L-R) Eva Zenk, Sammi Logan, and Grace Kraus participate in the professional development and networking workshops on March 23, 2019.
- 3 Women in Engineering Program's student mentoring leadership team members attending the March 23, 2019 dinner are (L-R) Kailu Zhuang, Allison Strong, Lexi Zovko, Emmy Chojecki, and Klaire Fosnaugh.
- 4 Women in Engineering Program directors throughout the years gather for a group photo on March 23, 2019, after unveiling the photography specially created to honor Amelia Earhart and Lillian Gilbreth, important women in Purdue's history. They are: (L-R) Donna McKenzie (director from 1968-74); Beth Holloway (director from 2001-present); keynote speaker and namesake of the program's directorship Leah Jamieson; Jane Daniels (director from 1980-2001); and Marie McKee (director from 1978-79).
- 5 The Saturday afternoon workshop sessions on March 23 were interactive and allowed students and alums to discuss professional development topics pertinent to women in the engineering field.

# **MISSION AND OBJECTIVES**

Since 1969, Purdue's Women in Engineering Program has been committed to increasing the recruitment, retention, and graduation of women engineering students. Each year, we reach out to support and inform more than 4,000 girls and young women – from elementary school through graduate school.

# MISSION:

The Women in Engineering Program at Purdue University is dedicated to enriching the profession of engineering through the full participation of women. We develop and direct activities that provide:

- ¬ encouragement for girls and young women to study engineering.
- → information about careers and companies.
- ¬ an environment conducive to the successful completion of students' studies.

We also strive to maintain strong relationships with alumnae, friends and employers who generously support our program.

# **OBJECTIVES:**

- ¬ To provide career information and encouragement to pre-college girls and young women to continue achievement in math and science and consider engineering as an appropriate career choice.
- Encourage women to matriculate at Purdue University in the College of Engineering.
- 7 Ensure a climate in the College of Engineering that allows young women to reach their full potential.
- Provide opportunities for women engineering students to develop leadership skills that can be utilized in their future lives.
- → Encourage women to consider graduate education and academia among their options upon graduation.
- A Maintain open communication with alumnae and their employers to encourage their continued participation in and support of the Women in Engineering Program.





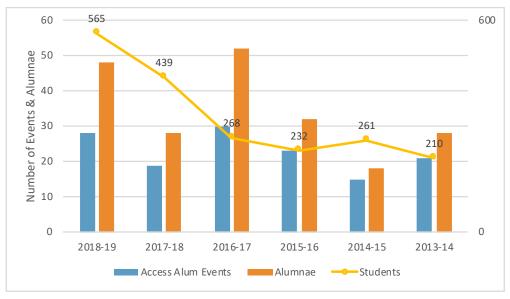
We greatly appreciate the generosity of our alumni and friends, who through the end of the Ever True: The Campaign for Purdue University, have made generous contributions in support of the Women in Engineering Program. As we continue to celebrate Purdue's 150 Giant Leaps, we invite you to partner with us to dream and realize the exciting potential future "giant leaps" can propel us. If you would like to make a contribution, please go to giving.purdue.edu or contact Claire Chandler at 765.494.0671 or cechandler@prf.org.

# PROGRAM FEATURE — ACCESS ALUM



Opportunities for students to interact with female engineering alumnae is vital to their professional growth. The Women in Engineering Program hosts informal drop-in networking events, called Access Alum, for students to casually interact with female engineering alumnae during the school day. The goal is for students to network with alums, ask questions, have a resume reviewed, and learn more about industry, government, and academic positions. These Access Alum events are so valuable that all participants in the M&M program are required to attend at least one each semester. Over the past 5 years, the number of students who have attended Access Alum events has increased from 210 in 2013-14 to a record 565 this past year! In 2018-19, we hosted 48 alumnae at 28 different events.

Talking with our students and exploring their questions is one way for our alum to have an impact on the lives and aspirations of these future engineers. If you plan to visit campus, we hope that you will give this opportunity your consideration; we would be appreciative of the time you give and the advice you share. To set up an Access Alum event, please contact Cathy Deno at <a href="mailto:denoc@purdue.edu">denoc@purdue.edu</a>.



"I really enjoyed the WIEP events when I was in school, and I'm looking forward to coming back to campus as an alum to share experiences, advice, and what I love about Ford and Purdue. I wouldn't be where I am today without the opportunities Purdue has provided me, and I would love to give back by reaching out to current students!" — Megan Hetisimer, BSME '19

"Be a mentor – this is nothing more than a single interaction or series of focused conversations. People need the truth – give pros and cons, warts and all. Encourage them to seek out additional perspectives. You can't do the work for them; my personal approach is mentoring 401K, matching the mentee's contribution and effort."

-Jennifer Armour Roach, BS ChE '91



# **ALUMNA FEATURE — Jennifer Armour Roach (BS ChE 1991 Purdue)**

Why did you choose to study engineering? What brought you to Purdue?

As a high school student, I loved calculus and chemistry, so it inspired me when my teachers encouraged me to pursue further studies in these areas. I knew I wanted to go to college but found picking a major to be overwhelming since I did not know many people who had gone to college. I knew paying for college would be a hardship for my family and felt a responsibility to choose a career with a good return on investment. My mom took me to the library where I researched different careers and degree pathways – I was drawn to engineering because a professional degree could be achieved in just 4 years, leading to a profession with economic self-sufficiency. Growing up in the Detroit area, the top engineering schools were both so close to home that much of my graduating class was attending. However, I was looking for a fresh experience,

not just an extension of high school. Through serendipity (and some well-targeted marketing), I was invited to attend Purdue's summer engineering seminar between my junior and senior year in high school. I discovered recently that my session was the first year STEP was offered (1985). I remember at the time the admission was a big financial decision for the family, but I am forever thankful for the investment that my parents made in my future.

My experiences at Purdue's Engineering summer seminar gave me first-hand knowledge about the engineering disciplines, making me even more certain that I wanted to pursue Chemical Engineering and instilling confidence that I belonged in the program. The Co-Op program was introduced to us, which sounded exciting and rewarding because I was eager to move past minimum wage jobs and jump into my future. I committed to Purdue's Freshman Engineering program, with the hope of pursuing Chemical Engineering and finding a Co-Op job.

What was your experience with Purdue's Engineering summer seminar?

What has your Purdue Engineering degree meant to you, or allowed you to do?

My Purdue Engineering degree has been an admission ticket to pursuing my professional and personal goals. I chose Chemical Engineering as my major and completed five Co-Op terms with IBM, rotating through clean room semiconductor process development, manufacturing, wastewater treatment, and project management assignments. During my college and Co-Op experience, I met many people who became lifelong friends, and — most importantly — my husband! Quite simply, my time at Purdue and my Co-Op experience gave me the tools to build my future and the network to support it.

Through lots of hardwork, I had my pick of jobs when I graduated. I fell in love with the idea of designing and making consumer products that improve people's lives, so I chose Research and Development at Procter and Gamble. With the diversity

of products offered, there was much to learn, and speed-to-market left no time to become bored! These first impressions remain true, 28 years later.

My first assignment was a new product start-up where I learned the ins and outs of design, scale-up and transition into manufacturing. I worked shift work with the line teams in manufacturing and delivered my project to the market, discovering the joy of seeing the fruit of my effort on store shelves! On this first project, I was granted a US patent in product and material design that is still in use today.

As my knowledge and skills increased, I was rewarded with bigger projects, tougher technical problems and more business responsibility. I developed deep expertise in design, development, and delivery of new products. I led global teams to deliver initiatives in North America, Europe, Latin America, and Asia, traveling to over 50 countries. I developed scores of young engineers and technologists and built a diverse global organization, with direct reports from every region. As my business grew, I grew along with it, both professionally and personally. (continued on page 8)

# **ALUMNA FEATURE — Jennifer Armour Roach (BS ChE 1991 Purdue)**

(continued from page 7) My mentors and sponsors positioned me for growth in crucible positions to make the biggest impact for our business as an Associate Director of R&D, with assignments in FemCare, BabyCare, Corporate, HealthCare, and HomeCare, where I set the technical strategy, leading technology start-ups and turnaround situations. I am blessed to work with great people from around the world doing a job that I love to do. Many of them are also Purdue Engineers.

While growing my career, my husband and I were blessed to grow our family. Our son and two daughters were born in the formative early years of my career. Our children benefitted by early exposure to an engineering mindset and access to my work through 'family day' plant tours and company sponsored 'bring-your-kids-to-work day.' In addition, our children were able to accompany us on many travel adventures, expanding their view and knowledge of the world. As a result, all three of our children chose to pursue engineering careers. Our son and elder daughter are both Chemical Engineers, our younger daughter is a junior in Industrial Engineering.

# What does it mean to you to have a daughter who also graduated from Purdue Engineering and another on her way to doing so?



I am so incredibly proud of our children. All three of them are hardworking engineers who are determined to achieve their goals. It is a very special feeling to attend each college graduation. This year we had the pleasure of celebrating Anne's graduation in Chemical Engineering on the same weekend in May that my graduation occurred 28 years earlier. My husband and I enjoyed the graduate reception with Anne in Forney Hall, walking the same halls I had walked three decades ago. The most exciting part is knowing she has the tools to build the life she wants as she begins as exciting new job in a new city.

Our daughter Laura is a rising junior in the Industrial Engineering program at Purdue. It is so much fun to witness Laura's excitement as she talks about her project work with PurdueThink (the student led consulting firm), as well as her undergraduate research projects. It is clear she has found a field that is able to combine her passions and natural talents and apply them to solve real world problems.

Why do you support the Women in Engineering Program at Purdue?

As a student, I did not have any engineering role models, let alone female engineer role models. The culture created by the Women in Engineering Program (WIEP) enables a campus experience where women are included and supported. I have benefitted from the lifelong relationships with other women and the powerful professional networks that result. As a parent, I found WIEP to be a valuable resource for exposing my girls to role models, experiences, and opportunities at a young age. As an alumna, WIEP is a vital way to stay connected to campus and to give back. It's also a great way to grow your network, which you can later introduce to one another so mentees can mentor others.

#### **OPPORTUNITIES FOR ALUMNAE ENGAGEMENT**

There are many ways for you to get involved with the Women in Engineering Program. Listed below are some volunteer opportunities. If you have an interest, please <u>complete our online form</u> providing us with information for our database.

These opportunities are open to everyone and unlimited in number. Let us know you are interested, and we will get you set up!

- Access Alum (informal chats with current students while on campus visiting, recruiting, etc.) needed: alumnae
  to inform us when they'll be on campus and available for an event.
- WE Link (connecting with high school seniors as they apply and ultimately decide whether Purdue engineering
  is the place for them) needed: guest bloggers sharing experiences that encourage and inspire. Visit The
  Engineering Experience Blog.

These programs are looking for recent alumnae (within the last 10 years). If you meet that criteria, let us know you are interested, and we will invite you!

Exploring Engineering at Purdue days (one-day on-campus recruiting programs for high school juniors & seniors) – needed: panels of engineering professionals less than 10 years from graduation to talk about what they do in the "real world"

These programs need inspirational and engaging speakers whose talks are interactive with a message aligned to course/program objectives. There are a limited number of openings. If you let us know you are interested, we will be in touch if we find a good fit.

- ENGR 194 (Women in Engineering Seminar for first year students) needed: motivational alumnae who share college experiences and relate those to where they are now and what they do in their positions.
- Mentors & Mentees (M&M)/Graduate Women in Engineering Network (GWEN) (Undergraduate and Graduate student mentoring programs) needed: facilitators of interactive/workshop style topics including but not limited to: life skills, engineering roles, non-traditional paths, life/work balance, finances, Entrepreneurship, global etiquette.

If you are interested in doing outreach programming near where you live, let's talk to see if becoming an Engineering Outreach Partner is right for you!

Engineering Outreach Partner (EOP) Initiative (sharing our outreach model, best practices, training, and
other resources nationally) - needed: alumnae partners who can help share WIEP's vision and passion
for advancing youth education by leading pre-college students in hands-on engineering activities and/or
interactive discussions.

# **VALUED VOLUNTEERS**

PROGRAM	NAME	<b>PURDUE DEGREES</b>	COMPANIES
EE@Purdue	Amanda Bade	BS CHE; BS CHM	Cargill Dry Corn Ingredients
50th	Chris Barman	BS ME	Eaton Corporation
AA	Sarah Beranek	BS MSE	Buehler (an ITW Company)
AA	Lisa Berry	BS ME	Honeywell
50th	Jenifer Camacho	BS IE	Accenture Digital
EE@Purdue	Tracy Chariton	BS CE	JPS Consulting Engineers
EE@Purdue	Kassie Coverdale	BS ABE	Terra Drive Systems
ENGR 494	Stefanie Darlington	BS ME; MBA	GE Aviation
50th	Maya Denton	BS CHE	The University of Texas at Austin
AA	Bahar Dhowan	BS BME; MS BME	Deloitte Consulting
AA	Jocelyn Dunn	MS BME; PhD IE	NASA Johnson Space Center
50th	Jenell Fairman	BS CE	City of Carmel
EE@Purdue	Erika Fotsch	BS ME	Allison Transmisson
AA	Katherine Frank	BS MSE	Boeing
EE@Purdue	Allison Graban	BS ME; MS ME	Whirlpool Corporation
50th	Lindsey Gray	BS CEM	Pankow Builders
EE@Purdue	Jackie Grimm	BS ABE	Weston Foods
50th	Mara Howell	BS MSE; MS MSE	Intel Corporation
AA	Katie Hubert	BS IE	Kroger Manufacturing
EE@Purdue	Jennifer Hyman	BS CE; MS CE	Civiltech Engineering Inc.
EE@Purdue	Rachael Janney	BS ME	General Motors
AA	Camilla Jeffs		Honeywell
AA	Milea Kammer	BS MSE; PhD MSE	Honeywell Aerospace
AA	Courtney Kelly	BS CHE	3M Corporation
AA	Carrie Kendrick	BS ME; MBA	Honeywell Aerospace
50th	Ashley Koeplin	BS CHE	Solvay Composite Materials
50th	Laura LaRiviere	BS CE	Stantec
EE@Purdue	Brittany Leigh	BS ME	Bejin Bieneman PLC
50th	Alexa Malaspino	BS BME	Keysight Technologies
AA	Anna-Maria McGowan	BS AAE	NASA Langley Research Center
EE@Purdue	Taylor Mowery	BS CHE	Honda Manufacturing of Indiana
AA	Erin Murphy	BS ME	3M Corporation
50th	Euridice Oware	MS CE; PhD ENE	Engineering Educator, Speaker
EE@Purdue	Jessica Pilotte	BS CE	TranSystems
AA	Katie Reis	BS CHE	Deloitte Consulting
50th	Jennifer Roach	BS CHE	Procter & Gamble
M&M	Etoulia Salas		Intel Corporation
50th	Catherine Sequeiros	BS CE	GE Healthcare
EE@Purdue	Megan Tobias	BS ME	Envelop Facility Technologies
EE@Purdue	Missy Ullmer	BS BME	Eli Lilly & Company
50th	Kim Underhill	BS CHE	Kimberly-Clark
EE@Purdue	Blakely Winstead	BS ME	Microsoft

# **VALUED VOLUNTEERS**

## **PURDUE FACULTY, STAFF AND STUDENTS**

#### **PROGRAM**

**GWEN** I2R

EE@Purdue

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EE@Purdue EE@Purdue EE@Purdue

NAME

Juliana Casavan Joshua Alexander Anne Dransfield DeLion

**Brad Duerstock** Joanne Lax Tim Luzader Linda Mason Shruthi Suresh Dan Taylor Ting Zhang Sarah Allard ABE Ambassadors Jordan Baker

Dianne Bell Patrick Brunese CE Ambassadors Kristin D. Dawson Brandon Fulk Molly Gilbert Susan Khalifah

Corey Linkel ME Ambassadors Alex Nunan Mary Pilotte

Amy Reibman

Matilde Sanchez-Pena

Hong Tan Tammy Thayer Michael Titus

SCHOOL/DEPARTMENT

Purdue Research Foundation

Speech, Language, & Hearing Sciences

School of Engineering Education

Weldon School of Biomedical Engineering College of Engineering Administration

Career Success

Graduate School Administration

Weldon School of Biomedical Engineering School of Agricultural & Biological Engineering

School of Industrial Engineering

School of Aeronautics and Astronautics

School of Agricultural & Biological Engineering

Davidson School of Chemical Engineering

School of Engineering Education School of Industrial Engineering Lyle School of Civil Engineering

School of Mechanical Engineering

Division of Construction Engineering and Management

School of Aeronautcis and Astronautics

Lyle School of Civil Engineering

Weldon School of Biomedical Engineering

School of Mechanical Engineering

Davidison School of Chemical Engineering

School of Engineering Education

School of Electrical and Computer Engineering

School of Engineering Education

School of Electrical and Computer Engineering Environmental and Ecological Engineering

School of Materials Engineering



Thank you to all of our valued volunteers. The success of our programming from January - June 2019 wouldn't have been possible without the outstanding support from the listed alumni, faculty, staff, students, and friends who graciously volunteered their assistance to the Women in Engineering Program.

## ABBREVIATIONS & ACRONYMS DICTIONARY

#### **WIEP PROGRAMS**

50th - WIEP 50th Anniversary Celebration

AA - Access Alum

EE@Purdue - Exploring Engineering at Purdue

ENGR 494 - Women in Engineering Senior

Seminar: Gender in the Workplace

GWEN - Graduate Women in Engineering Network

IGED - Introduce a Girl to Engineering Day

12R - Innovation to Reality

M&M - Mentors and Mentees

#### DEGREE

BS - Bachelor of Science

MS - Master of Science

MBA - Master of Business Administration

PhD - Doctorate

#### DEGREE PROGRAM

AAE - Aeronautics and Astronautics Engineering

ABE - Agricultural and Biological Engineering

BME - Biomedical Engineering

CE - Civil Engineering

CEM - Construction Engineering and Management

CHM - Chemistry

CHE - Chemical Engineering

ENE - Engineering Education

IE - Industrial Engineering

ME - Mechanical Engineering

MSE - Materials Science Engineering



# Women in Engineering Program

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