New Faculty

Tonya Peeples joined the College of Engineering as associate dean for equity and inclusion, and joined the department as professor of chemical engineering. Her research areas include biotechnology of extremophiles, synthesis of specialty chemicals and pharmaceuticals, removing pollution from the environment (bioremediation), and creating valuable products from bio-renewable starting materials. Peeples comes to us from the University of Iowa.

Gary Aurand joined the Department of Chemical Engineering in fall 2018 as associate teaching professor. His area of research focuses on sustainability, and he is a member of the AIChE Institute for Sustainability and the Sustainability Engineering Forum. Aurand comes to us from the University of Iowa, where he was an adjunct associate professor.

Faculty Awards, Achievements, and Distinctions

A number of faculty were recognized for their achievements this year:

- **Monty Alger**, director of the Institute for Natural Gas Research and professor of chemical engineering, was named president-elect of the American Institute of Chemical Engineers (AIChE) for 2019. He will serve as AIChE president in 2020.

- **Michael Janik**, professor, is one of just six Penn State faculty members who received the 2018 George W. Atherton Award for Excellence in Teaching.

- **Enrique Gomez** was promoted to the rank of professor.

- **Xueyi Zhang**, assistant professor, received the 3M Non-Tenured Faculty Award. The award provides unrestricted financial support to help promising faculty launch their research labs and contribute to their academic field.

- **Andrew Zydney**, Bayard D. Kunkle Chair and professor of chemical engineering, was announced as the 2019 recipient of the Alan S. Michaels Award in the Recovery of Biological Products from the American Chemical Society Division of Biochemical Technology.

- **Esther Gomez**, assistant professor, received the National Science Foundation’s prestigious Early Career (CAREER) award to better understand the mechanobiology of mesenchymal-epithelial transition.

- The Penn State Engineering Alumni Society (PSEAS) recognized five chemical engineering faculty members at the 2018 PSEAS Annual Awards Ceremony. Award recipients included:
  - **Robert Rioux**, Friedrich G. Helfferich Professor – Outstanding Teaching Award.
  - **Darrell Velegol**, Distinguished Professor – Premier Teaching Award.
  - **Scott Milner**, William H. Joyce Chair Professor – Outstanding Research Award
  - **Manish Kumar**, associate professor – Outstanding Research Award
  - **Stephanie Velegol**, associate teaching professor – Outstanding Advising Award

Research Spotlight

- 2018 was another great year for research. The department published over 130 research articles and 19 of these appeared in scientific journals with impact factors exceeding 10. These 19 articles were published by 12 different faculty members, consistent with the breadth of research excellence across the department. **Michael Janik** and **Manish Kumar** both authored at least three of these articles in high-impact journals.

- **Seong Kim**, **Esther Gomez**, **Manish Kumar**, and **Enrique Gomez** were key members of a team that was awarded $13M from the U.S. Department of Energy for an Energy Frontier Research Center on Lignocellulose Structure and Formation.

- **Costas Maranas** was part of a Penn State team that was awarded $3.2M from the Department of Energy for a Center for Bioenergy Innovation.

- **Robert Rioux** and **Michael Janik** were awarded $470,000 from the National Science Foundation for their collaborative study aimed to discover design rules for synthesis of stable single-site catalysts.
In the News

A group of approximately 45 Penn State chemical engineering alumni, along with some faculty members and students, shared their ideas for better engaging our alumni and enhancing the experience of students in the department during the Penn State Chemical Engineering Alumni Workshop in September.

In 2018:

- 223 B.S. degrees
- 15 M.S. degrees
- 25 Ph.D. degrees

We graduated more Ph.D. students (25) this academic year than any other degree program in the College. We also graduated the most women engineers at both the B.S. and Ph.D. levels.

Penn State was ranked 6th among U.S. universities for the impact of its chemical engineering research publications.

2018 saw the final stages of construction on the new Chemical and Biomedical Engineering Building. The state-of-the-art education and research facility is scheduled to open in February 2019.

Alumni Awards/News

- Ken Graziani, (B.S., ’70) received the 2018 Outstanding Engineering Alumni Award.
- Katherine Gawel (B.S., ’10), was named recipient of the department’s 2018 Early Career Alumni Recognition Award.
- John R. McWhirter (Ph.D., ’62) was among 14 Penn State graduates recognized with the lifelong title of Alumni Fellow, the highest award given by the Alumni Association.
- George Khoury (B.S., M.S., ’10), received Analytics Influencer of the Year Award from ExxonMobil.
- Raj Shah (Ph.D., ’95), director of Koehler Instruments, received the P.M. Ku Medal, one of the highest honors bestowed by the International Society of Tribologists and Lubrication Engineers (STLE).

Student Mentions and Achievements

- Robert Rioux was awarded $450,000 by the Department of Energy for a project on Catalytic Reactions at Extended Solid-Liquid Interfaces.
- Andrew Zydney was awarded more than $600,000 from industrial research sponsors to support his work on filtration in the pharmaceutical industry.
- Enrique Gomez is leading a team that won a National Science Foundation planning grant for an Engineering Research Center for translating and evolving nanoscale assembly for society.

- Adam M. Dormier was the student marshal for chemical engineering at the College of Engineering’s spring commencement ceremony on May 4.
- Chemical engineering seniors Emelia Conte and Natalie Morrissey, both Schreyer Scholars, received the 2018 Outstanding Senior Award from the AIChE Central PA Local Section.
- Hongshen Liu, a doctoral candidate, was awarded Best Graduate Student Poster Presentation at the 2018 Glass and Optical Materials Division Meeting of The American Ceramic Society.
- Brielle Hohn, a doctoral candidate, was awarded a prestigious National Science Foundation Graduate Research Fellowship.
- Ph.D. students Anish Dasgupta, Lin Wang, Mohamadamin Makarem, and Sharad Maheshwari were awarded one-year McWhirter Graduate Fellowships on the basis of their research productivity and scholarship and their commitment to the betterment of Penn State.
- Tyler Culp, a doctoral candidate, won a Best Poster Award at the 2018 Membranes: Materials and Processes Gordon Research Conference in August.

- Roger Dunlap, facilities manager, received the PSEAS College of Engineering Outstanding Staff Award.
- Cathy Krause, graduate program assistant, received the Outstanding Staff Award from the department.

©2018 The Pennsylvania State University. All Rights Reserved. This publication is available in alternative media on request. Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to all qualified applicants without regard to race, color, religion, age, sex, sexual orientation, gender identity, national origin, disability or protected veteran status. IDED: ENG 19-137