WELCOME TO OUR ANNUAL NEWSLETTER

FOOD ENGINEERING CLUB

2020-2021 ISSUE 8

MAY 2021
Our club - FEC has won the 2021 GPSA Excellence Award for Registered Student Organization by the Graduate and Professional Students Association, Washington State University
With so many changes to how we learn and work, the past year challenged every one of our students and researchers to find new and innovative ways to succeed. This is exactly what Washington State University’s Food Engineering Club has done. Under circumstances that could have stymied and slowed plans and dreams, this group created opportunities. From launching a new mentoring program, to welcoming panelists from major international companies, and bridging gaps to ensure members are connected and supported, the club made strides in community involvement, networking, and outreach. As we return to a face-to-face academic experience, incoming students will reap the benefit of gains made in what could have easily been an interlude year. Your ambition and accomplishment offer an inspiring model to other student organizations. On behalf of the College of Agricultural, Human, and Natural Resource Sciences, I thank all FEC officers, faculty advisors, scientific speakers, and alumni mentors for your service and involvement. I also congratulate you on your successful 10th year, as well as your 2021 GPSA Excellence Award, and am excited to see what the future holds in store for this inspirational club.
It is my great pleasure to write these words congratulating all the members of the Food Engineering Club for your 11th anniversary. As department chair and faculty, I value very much the decade long exemplary work of the Club creating educational activities to enhance the professional skills of our students. I know that sustaining such level of activity for 11 years requires a great level of dedication and commitment from the present and past leaders of the Club and your advisor. Special thanks go to all of you, current and past Club presidents, for your sustained engagement and enthusiasm. I also want to thank Profs. Tang, Sablani and Barbosa-Canovas for their example and permanent encouragement. The commendable work of Prof. Sablani as advisor of the Club for close to a decade speaks very highly of his commitment to the personal and professional growth of our students. Prof. Tang, has kindly accepted to act as incoming faculty advisor. Under his supervision, I am very confident the club will continue to grow. 2020 was a particularly challenging year for the whole world because of COVID-19 which affected almost every dimension of our lives.
However, the Food Engineering Club impressed me by the level of support and great care by which you treated each other. I want to thank all of you for the emotional support the Club provided, and for your engagement and contribution to COVID-19 Pullman Hospital Fund. This and other activities show a great level of professionalism and the sincere commitment of the members to engage in the solution of our most pressing societal problems. Our students Club remain a major force for the department and a path to improve the experience of our graduate students. You have been actively engaged with professional societies helping our students win competitions, win travel awards, and gain industrial experience.

Our department has one of the largest graduate programs in Biological and Agriculture Engineering in the nation with 78 graduate students. The recent US News ranks our department 12th in the Best Graduate Schools for Agricultural and Biological Systems Engineering. Your work contributed to this achievement. Our goal is to attract the brightest and most committed students from all over the world. To grow the department it is critical to improve the experience of our students. I count with the support of the Food Engineering Club and your commitment to excellence to achieve this goal.

As always, Go Cougs!
I am deeply honored and privileged to have been Club's Faculty Advisor since its inception in 2010. It is hard to believe how quickly all these years have passed. No Club is driven by one or two individuals, but is driven by many who give willingly of their time and talents. Food Engineering Club is no different. The members selflessly dedicated their time for organizing the Club activities. I would like to thank past and present Club members for all their hard work. The Club has provided a stage for engaging its members in social, cultural and outreach activities as well as assist students in their professional growth.

As an advisor, I witnessed tremendous growth in the Club activities. The Club graduates have gained faculty positions at reputed US and international academic institutions, and as R&D scientists at global food companies and innovative start-ups. These former graduates continue to be associated with the Club by way of mentoring our current members in making suitable choices in their professional career. During difficult of pandemic, the Club provided much needed emotional support to its members and contributed to COVID-19 Pullman Regional Hospital Fund. I look forward to continue growth of the Club under the supervision of Juming Tang as an incoming Faculty Advisor. I am confident the momentum, built by the passion of our students, will continue to propel this Club into a promising future.
It was a great privilege to serve the Food Engineering Club (FEC) as a president in its 11th-year anniversary. In 2010 the club was established with the objectives to foster affable relationships among the club members; enhance soft and hard skills of the students and promote greater interest in this profession. In the period of the COVID-19 pandemic, meeting the objectives was not an easy task, yet the unexpected change has its own opportunities. FEC host social activities where the members had a virtual X-Mass dinner and gift exchange from the comfort of their home. Virtual trivia questions and games were some of the funs we have enjoyed as a group. Apart from having fun, we had enlightening webinars with faculties invited from different universities, including WSU. The panel discussions which guested FEC alumni were beyond our expectation where we learn from and network with our former students. This also opened the door to lunch a mentoring program that alumni will mentor graduate students for a year. To introduce our profession, we start producing a "What is Food Engineering?" video aiming at the general audience. FEC also expressed its appreciation for the Pullman Regional Hospital in fighting the pandemic by donating a check.
All these enjoyable and educational activities may not come true without the prudent guidance of our club advisor Dr. Sablani and faculties. The club's chair holders and members' genius effort to turn ideas into reality is highly esteemed. Our deepest gratitude goes to our guest speakers for sharing their research, alumni for volunteering in the mentoring program and GPSA for funding our video-making project. What a year to serve the club in the anniversary! How pleasant to end the terms with GPSA Excellent Award for RSO! Go Cougs!
Shyam Sablani, professor and associate chair in the WSU Department of Biological Systems Engineering, was honored by the International Association for Food Protection (IAFP) this month for his discoveries supporting our food supply.

“It is a great privilege to receive this prestigious award from the Frozen Food Foundation, and I am very thankful to the selection committee for honoring me,” Sablani said. “It is an even greater honor to be placed in such distinguished ranks as those of the past honorees, all of whom have made important contribution to the safety and quality of frozen foods.”

Sablani has made substantial contributions to the science and technology of frozen and refrigerated foods. He found that a type of ultraviolet light can go through ice and deactivate pathogens that may be present on surfaces of frozen foods, helping improve their safety; investigated unfreezable water; and explored sensitivity of starch-, protein- and sugar-rich frozen foods to temperature fluctuations in the cold chain. His findings have provided insights for improved packaging design, storage and transportation strategies to minimize quality changes in frozen foods.
Juming Tang, Regents Professor, Department of Biological Systems Engineering, Washington State University, has been elected to the National Academy of Engineering for invention and commercialization of electromagnetic spectrum wave-based food processes.

The National Academy of Engineering (NAE) has elected Juming Tang as a new member. This announcement was made by NAE President John L. Anderson on Tuesday, February 9th, 2021. Election to the National Academy of Engineering is among the highest professional distinctions accorded to an engineer. Academy membership honors those who have made outstanding contributions to “engineering research, practice, or education, including, where appropriate, significant contributions to the engineering literature” and to “the pioneering of new and developing fields of technology, making major advancements in traditional fields of engineering, or developing/implementing innovative approaches to engineering education.” Dr. Tang, and other members of his newly elected class, will be formally inducted during the NAE’s annual meeting on Oct. 3, 2021.
Professional developments

Professional Development Committee had an eventful year despite pandemic, thanks to technology that we were able to organize several Webinars and Panel Discussion over zoom. FEC delightfully welcomed its alumni Dr. Reza Ovissipour. We also invited Dr. Boce Zhang currently working in Virginia Tech and UMass Lowell for advice on ways to tune one's skills for preparing for academic career.

Panel discussion with eminent industrial professionals and our alumni—Dr. Ellen Bornhorst, Dr. Poonam Bajaj, Dr. Wenjia (Wendy) Zhang and Dr. Jungang Wang stressed the importance of passion, networking and adapting to changes as key elements for thriving in an industrial ambience. In addition, our professors sought advice on required courses in an ever-changing professional world that were relevant for industrial career of upcoming students.

Dr. Chuck Munson from Carson College of Business, WSU shared his knowledge of operations and supply chain management. His emphasis on the least slow process in a processing line as the most important speed limiting factor in the manufacturing process has given an idea of the role optimization plays in any industry.
Webinars

Dr. Reza Ovissi
Virginia Tech

**Topic:** “Innovative Approach to Address Microbial Food Safety Using Nanobubbles”
**Date:** 12/18/2020

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**Topic:** “Preparing for a Job in Academia and Industry”
**Date:** 18/02/2021

Dr. Shyam Sablani
Washington State University
Topic: “Machine Learning Enabled Nondestructive Paper Chromogenic Array Detection of Multiplexed Viable Pathogens on Food Products”
Date: 31/03/2021

Dr. Boce Zhang
UMass Lowell

Topic: “Operations and Supply Chain Management: Bringing Products to Market”
Date: 4/21/2021

Dr. Chuck Munson
Washington State University
Panel discussion: Career advancement in Food Industry

02/23/2021

Dr. Ellen Bornhorst
R&D Senior Engineer
at Pepsico

Dr. Poonam Bajaj
Research Scientist
at Perfect Day
Panel discussion: Career advancement in Food Industry

04/13/2021

Dr. Jungang Wang
Senior Research Scientist at Campbell Soup Company

Dr. Wenjia Zhang
Project Manager at The Coca-Cola Company
After COVID-19 outbreak, most social activity are canceled by public health regulation. Even though we are facing a tough time, Christmas dinner was still going on this year. Follow the tradition, we received awesome Christmas gifts from students. Christmas dinner is the great time to open the gift and brings us the happy hour. Not only the gift, but also we host a lot of quiz games and share our experience in this special year. This unique memory will be in our mind forever.
We launched FEC Mentoring Program in this year. Our goal is to offer graduate students an opportunity to connect with established professional mentors in the food industry and academia. The communication between mentors and mentees will focus on career and professional development. The mentors will support us in the following areas:

- Resume preparation tailored for industry/academia,
- Interview skills (mock interviews),
- Insight about industry/academic (to be more prepared for the job),
- Transferable skills (such as managing priorities, calendars, meetings),
- Presenting technical information to non-technical/business people, or
- Discussion on technical subjects (research topic/production process).

**Mentoring Program**

**FEC alumni volunteers**

Dr. Sohan Birla  
Conagra Brands Inc.

Dr. Ellen Bornhorst  
PepsiCo

Dr. Sumeet Dhawan  
Nestle
Thank you very much for being volunteer in the FEC Mentoring. We greatly appreciate your support.
**Donation**

During the COVID-19 Pandemic, the Pullman Regional Hospital is taking extraordinary measures to keep our community healthy and safe. We donated $200 to the Pullman Regional Hospital. The donation will help provide for equipment, supplies, and operations. We are all in this together!

**Video Making**

This term, we started the production of a YouTube video entitled "What is Food Engineering?" The video will give a comprehensive introduction to the Food Engineering discipline. The educational video will explain how the discipline is related to other engineering and science fields. The role of Food engineers in academia, industry and government organizations will be presented. Also, the current and future opportunities and challenges of Food Engineering will be featured.

Undergraduate and high school students will be benefited from the information provided in the video in choosing their future study program. The community at large will have awareness about the Food Engineering program and research at WSU. The video will be ready for upload to YouTube by June 2021.
Awards and scholarships

Yonas Gezahegn
- 3rd Place in Charles Stumbo Student Paper Competition, Institute for Thermal Processing Specialists (IFTPS), Mar 2021, Guelph, ON, CA
- 1st Place Best Oral Presentation in IMPI-54 symposium, International Microwave Power Institute (IMPI), Jun 2020, Mechanicsville, VA, USA
- 3rd Place Poster Presentation in Research Exposition, Graduate and Professional Student Association, WSU, Mar 2020.

Jiewen Guan
- 1st place in the BSE 598 Best Seminar Presenters in fall 2020.

Sumeyye Inanoglu
- Outstanding Graduate Student Award (2020), Biological Systems Engineering, WSU
- Best Seminar Presentation Award – 3rd Place (2020), BSE, WSU

Ashutos Parhi
- BSE ASABE travel award
- Arnie and Marta Kegel Fellowship in 2020.

Zhi Qu
- Outstanding Graduate Student Award (2020), Biological Systems Engineering, WSU
- Best Poster Award in IMPI-54 symposium, International Microwave Power Institute (IMPI), Jun 2020, Mechanicsville, VA, USA
Recent graduates

- **Ashutos Parhi**: graduated in May 2021.
- **Sumeyye Inanoglu**: graduated in Apr 2021; will start as a post-doc at Rutgers University, New Jersey, USA.
- **Juhi Patel**: graduated in Dec 2020; product engineer at Packaging Technology and Research LLC., Stillwater, Minnesota, USA.
- **Atisheel Kak**: graduated in Nov 2020; research scientist at ADM, Erlanger, Kentucky, USA.
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https://www.linkedin.com/groups/5157043/

Email us at: ssablani@wsu.edu (Food Engineering Club Advisor Dr. Shyam Sablani)

Thank you!

Compiled and edited by Public Relations Committee (Sumeyye Inanoglu)