



**Gönül Kaletunç, Ph.D.**  
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### **Bio**

Dr. Kaletunç has a B.S. and M.S. degrees in Chemical Engineering from the Middle East Technical University, Ankara, Turkey, and a Ph.D. degree in Food engineering from the University of Massachusetts, Amherst. She joined the Ohio State University in 1998. She is the author or coauthor of numerous professional publications. She is the co-editor of a book titled “Characterization of Cereals and Flours: Properties, Analysis, and Applications” and editor of the book “Calorimetry in Food Processing: Analysis and Design of Food Systems. Her research focuses on production and targeted delivery of microencapsulated bioactive compounds using food as a vehicle for improved food quality, human health, and wellness; and application of gaseous sanitizers to improve fresh produce safety. She currently serves as an editorial board member of Food Engineering Reviews.

### **Abstract**

#### **Undergraduate and graduate education in Food engineering**

**Panel moderator:** Gönül Kaletunç

**Panel members:** Paul Singh, Osvaldo Campanella, Carmen Moraru, Steve Lombardo, Romel Somavat

Food engineering has developed in many countries around the world as a process engineering discipline, mostly within chemical engineering departments. In the US, food engineering exists as a specialization within Agricultural Engineering or similarly focused departments. The undergraduate curriculum is typically similar to the standard requirements of these departments with inclusion of some special technical electives. For the ABET accreditation process, food engineering is considered under the Agricultural Engineering or, the recently added, Biological Engineering criteria mostly because no standardized curriculum exists. The challenge of not having a home of its own and the lack of recognition of food engineers’ contributions has led to declines in food engineering student numbers, which leads to declining numbers of food engineering faculty hired in academia. Some food engineers are employed in Food Science departments and do not have the opportunity to educate food engineering students. For graduate education, food engineering students complete degrees either in Food Science or Agricultural Engineering departments; therefore, not all fulfill the graduate engineering degree requirements. On the industry side, the food industry continues to employ chemical engineering graduates in large numbers who lack knowledge of food safety and understanding of the importance of food properties for design of food processing conditions. This session will present an interactive panel discussion of the education of food engineers for roles in academia, industry and society to address the global issues of food safety, food security, and consumer health and wellness from an engineering perspective.