

# DEPARTMENT OF BIOLOGICAL AND AGRICULTURAL ENGINEERING

<http://baen.tamu.edu>

**Head:** Patricia K. Smith

The Department of Biological and Agricultural Engineering offers graduate studies leading to both engineering degrees and non-engineering degrees. Engineering degrees include Master of Science, Master of Engineering (non-thesis) and Doctor of Philosophy. In addition, the department offers courses and faculty supervision for students pursuing the Doctor of Engineering degree. Faculty expertise exists for study in the fields of environmental and natural resource engineering; bioprocess engineering; food engineering; biomaterial science; machine and energy systems; systems analysis; and food, feed and fiber processing. Active research programs are ongoing in all of these areas. Minimum preparation for entry into advanced study for engineering degrees would include a baccalaureate degree in engineering. Students with non-engineering degrees can be accepted into an engineering program but must complete some basic engineering prerequisite courses.

The department offers two non-engineering graduate degrees. The Master of Science in Agricultural Systems Management (AGSM) provides students with agricultural and business backgrounds the opportunity to pursue either a research-based or a non-thesis graduate degree in systems management techniques for agricultural industries. The Master of Agriculture in Agricultural Systems Management is technology oriented with emphasis on systems analysis and management. It requires an internship for practical experience. The faculty also participates in supervision of students pursuing Master of Science and Doctor of Philosophy degrees from interdisciplinary faculties such as Water Management and Hydrologic Sciences. Minimum preparation for entry into advanced study for non-engineering degrees would include a baccalaureate degree in Agricultural Systems Management, Food Science and Technology, or equivalent. Depending on degree and area of study, prerequisite courses may be required to provide the technology background. There are distance education opportunities available in the MS AGSM program as well.

Excellent research and study facilities exist which enhance all degree programs. Research facilities include modern laboratories, computer systems, testing equipment, data acquisition systems, technical support and areas for field studies. Supporting courses are available in a wide variety of disciplines as well as within the department. No foreign language is required for a PhD in Biological and Agricultural Engineering.

## Faculty

Agarwal, Girish S, University Distinguished Professor  
Biological & Agricultural Eng  
PHD, University of Rochester, 1969

Calabrese, Salvatore, Assistant Professor  
Biological & Agricultural Eng  
PHD, Princeton University, 2019

Capareda, Sergio C, Professor  
Biological & Agricultural Eng  
PHD, Texas A&M University, 1990

Castell-Perez, M E, Professor  
Biological & Agricultural Eng  
PHD, Michigan State University, 1990

Fernando, Sandun D, Professor  
Biological & Agricultural Eng  
PHD, University of Nebraska, 2003

Hardin, Robert G, Assistant Professor  
Biological & Agricultural Eng  
PHD, Texas A&M University, 2009

Kenimer, Ann L, Professor  
Biological & Agricultural Eng  
PHD, University of Illinois at Urbana-Champaign, 1990

King, Maria D, Associate Professor  
Biological & Agricultural Eng  
PHD, Institute for Biotechnology, Berlin, Germany, 1986

Kingman, Douglas M, Instructional Professor  
Biological & Agricultural Eng  
PHD, Purdue University, 2002

McGee, Russell O, Instructional Associate Professor  
Biological & Agricultural Eng  
MEN, Texas A&M University, 1997

Mohanty, Binayak P, Regents Professor  
Biological & Agricultural Eng  
PHD, Iowa State University, 1992

Mohtar, Rabi H, Professor  
Biological & Agricultural Eng  
PHD, Michigan State University, 1994

Moore, Janie M, Assistant Professor  
Biological & Agricultural Eng  
PHD, Purdue University, 2015

Moreira, Rosana G, Professor  
Biological & Agricultural Eng  
PHD, Michigan State University, 1989

Nikolov, Zivko L, Professor  
Biological & Agricultural Eng  
PHD, Iowa State University, 1986

Singh, Vijay P, University Distinguished Professor and Regents Professor  
Biological & Agricultural Eng  
PHD, Colorado State University, 1974

Smith, Patricia K, Professor  
Biological & Agricultural Eng  
PHD, North Carolina State University, 2000

## Masters

- Master of Agriculture in Agricultural Systems Management (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/agriculture-life-sciences/biological-agricultural-engineering/systems-management-magr/>)

- Master of Engineering in Biological and Agricultural Engineering (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/agriculture-life-sciences/biological-agricultural-engineering/meng/>)
- Master of Science in Agricultural Systems Management (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/agriculture-life-sciences/biological-agricultural-engineering/systems-management-ms/>)
- Master of Science in Biological and Agricultural Engineering (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/agriculture-life-sciences/biological-agricultural-engineering/biological-agriculture-engineering-ms/>)

## Doctoral

- Doctor of Philosophy in Biological and Agricultural Engineering (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/agriculture-life-sciences/biological-agricultural-engineering/phd/>)