FEDRO S. ZAZUETA

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EDUCATION

Ph.D.	1982	Agricultural Engineering, Colorado State University, Ft. Collins, CO, USA.
M.S.	1978	Water Use and Conservation, Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, N.L., México.
B.S.	1974	Civil Engineering, Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, N.L., México.

POSITIONS HELD

2018-Date	International Commission of Agricultural and Biosystems Engineering, *Secretary General*
2009-2017	Office of Information Technology, University of Florida, *Associate CIO*
2002-2008	Office of Academic Technology, University of Florida, *Professor and Director*
1997-2001	UF/IFAS Information Technologies Office, Director.
1982-date	Agricultural and Biological Engineering Department, University of Florida, *Assistant Professor, Associate Professor, and Professor.*
	Established and Served as Coordinator of the IFAS Software Support Office (1982-1997).
1975-1979	Thermal, Fluids and Control Engineering Department, Instituto Tecnológico y de Estudios Superiores de Monterrey, *Profesor de Planta.*
1974-1975	Civil Engineering Department, Universidad de Sonora, Sonora, México, *Profesor de Planta.*
1989-date	Agricultural Engineering, Adjunct Professor, UNICAMP, Campinas, Brasil.
1992-2006	Agricultural Engineering, Adjunct Professor, Universidad de Concepción, Chillán Chile.

ADMINISTRATIVE EXPERIENCE

Since January 2002, was a member of the UF senior IT leadership team and responsible for providing direction to and managing the Office of Academic Technology (AT). AT provides information technology services in support of the academic mission of the University, including teaching, research, extension and outreach (www.at.ufl.edu). AT supports 50,000 students, 4000 faculty and 12,000 staff. AT includes 91 staff members and 182 temporary staff members. Currently, is directly responsible for supervision of 8 Directors and a yearly budget of $13,000,000.

In 2001 led the Information Technology Strategic Planning Committee for the University of Florida. In 2010 implemented UF's IT Governance and coordinated the development of the current UF Strategic Plan for IT.   Since 2001 participated in the implementation of IT related strategic plans at UF. This included improvements to the organization by collapsing several IT related units into a single coherent unit, and establishing clear goals and assessment procedures for the units under AT. Some highlights are the successful deployment are of one of the nation's largest enterprise level course management systems, a state-wide video transport infrastructure, development of exemplary online courses, and instituting a faculty training program focused on technology based pedagogy.

From 1997 through 2001 was responsible for providing leadership and management to the Office of Information Technology of the Institute of Food an Agricultural Sciences. This included creating and/or managing a state wide network, business and administrative computing services, customer support services, information delivery system and a software engineering team. Some highlights are the growth of the state wide network (WAN) from 15 nodes to over a hundred nodes in a period of a year, development of an extension digital information resource, development of a statewide automated weather network, development of a distance pest and animal identification system, and creation of a help desk.

Starting in 1992 led the creation of the IFAS Software Support Office and managed the office for several years until it was incorporated into the IFAS Office of Information Technology in 1997. This self-funded office was created as a center to accelerate the adoption of IT in agriculture. This office was instrumental to develop and distribute software to agricultural audiences in Florida and led to national recognition in this area (a USDA award). Some highlights are the distribution of over 100 software titles worldwide, a yearly Florida State Computers in Agriculture Meeting and Trade show held from 1982 through 1994, the organization of the first World Conference on Computers in Agriculture, still held yearly in collaboration with partners from Europe and Asia and the creation of the international Federation of IT in Agriculture.

TEACHING EXPERIENCE

Have taught and developed courses at the undergraduate, and graduate level including web-based courses and distance education courses using, video, satellite, WWW-based and desktop videoconferencing technologies. In addition, numerous presentations in state, national and international professional meetings, workshops and training courses to industry and government agencies on topics related to Water Management and Information Technologies. In particular, provided leadership to the creation of an Agricultural Information Technology Minor at the University of Florida.

Courses Taught/Developed

Undergraduate Courses

Fluid Mechanics I and II, Mathematics I, Hydraulics, Hydro-mechanical Installations, Thermodynamics, Thermal Engineering Lab., Heat and Mass transfer for Biochemical Engineers (Transport Phenomena), Soil and Water Engineering, Irrigation in Florida, Drainage and Hydraulic Structures, Introduction to Engineering, Computers in Agriculture and Natural Resources, Networking, Instrumentation and Control in Ag. Systems, Agricultural Software Applications Development, Agricultural Decision Support Systems Development.

Graduate Courses

Software Engineering, Trickle Irrigation Design, Advances in Microirrigation.

Selected International Courses

2016	Flipping the Classroom. ASABE International Conference. Orlando, FL. 1 day.
2015	Active Learning. WCCA/WFITA Conference. Poznan, Poland. 1 day.
2014	Enterprise Information Systems. Universidad de Concepción. Chillán, Chile. 5 days.
2014	Mobile App Development Workshop. Universidad de Costa Rica, San Jose, Costa Rica, 1 day.
2013	Online Course Development, University of Turin, Turin, Italy, 1 day.
2005	Information Technology in Agriculture. Universidad de Concepción. Chillán, Chile. 4 days.
2003	VIII International Course on Irrigation Systems, Universidad Autónoma Chapingo, México. 3 days.
1998	Microirrigation design and management. International Irrigation Course. Córdoba, Spain. 5 days.

Selected Honors

2016	CIGR Recognition Award for contributions to Agricultural and Biosystems Engineering Int. Journal.
2015	CIGR Fellow, (International Commission of Agricultural and Biosystems Engineering).
2014	Life time Honorary President, CIGR.
2013	Plaque for contributions to the Development of Hungarian Agricultural Information Technology and its International recognition. Hungarian Association of Agricultural Informatics.
2010	Inducted as member, Club of Bologna.
2009	Outstanding Leadership Award, American Society of Agricultural and Biological Engineers.
2008	Kishida International Award, American Society of Agricultural and Biological Engineers.
2007	Outstanding Paper Award, American Society of Agricultural and Biological Engineers.
2006	Distinguished Service to Agriculture, ΓΣΔ (Gamma Sigma Delta).
2005	Inducted as Fellow, American Society of Agricultural and Biological Engineers.
2002	Outstanding Leadership Award, The Society for Engineering in Agriculture.

2001	Outstanding Specialist Award, National Association of Extension Professionals.
1999	Distinguished Service Award, United States Department of Agriculture.
1998	Davis Productivity Award, Florida Tax Watch.
1998	Outstanding Program Award, Epsilon Sigma Phi, National Honorary Extension Fraternity.

PROFESSIONAL SOCIETIES

- IMS (2016, UF Representative)
- CIGR International Commission of Agricultural Engineering (The World Society of Ag. and Bio. Eng.)
  - General Secretary Elect (2016-2017).
  - President (2011-2012).
  - Incoming President (2008-2010).
  - Information Systems Section Chair (2006-2008).
- EDUCAUSE (2001-2017, UF Representative)
- ASABE, American Society of Agricultural and Biological Engineering.
  - Meetings Council Chair (2009-2011).
  - Education Division, Founding member and Chair (2008-2009).
  - International Commission, Chair (2005-2008).
- INFITA International Federation of IT in Agriculture. Founding Member. Founding member and Chair (1998-date)
- ALIA Asociación Latinoamericana y del Caribe de Ingeniería Agrícola. Founding Member (1996-date)
- Sigma Xi, member (1999-date).
- Gamma Sigma Delta (1989-date).

RESEARCH EXPERIENCE

Research program in education focuses on eLearning technologies and IT services at the enterprise level, including learning analytics, latent semantic analysis, learning objects and instructional design process improvement.

Research program focused on the use of computer technologies for the improvement of design and management of water resource systems. Recent work includes techniques such as grid computing, deterministic and stochastic simulation, GIS, DBMS, conventional and real-time expert systems, neural networks, and data acquisition and control.

Selected Publications

Author of numerous research, extension and other publications, including books and software in use by industry. For a complete list see http://fsz.ifas.ufl.edu

Busato, P., Berruto, R., and Zazueta, F. 2015. Student response to "flipped Classroom" instruction in a food logistics course. ASABE International Meeting, New Orleans. Paper No. 20152190007. 9 p.

Williams, R.J., JC. Harman, F.S. Zazueta and J.S. Smith. 2011. Development for Student Success: An undergraduate online course in Engineering. Learning Technology Consortium. Teaching with Technology, Vol. 2 pp. 17-1/17-7. http://ltcessays.wordpress.com

Zazueta, Fedro S., Jiannong Xin, Luis Santos Pereira, and André Musy. 2006. Section 6.4 Information Technologies in Water Management, pp. 401-414 of Chapter 6 Management and Decision Support Systems, in CIGR Handbook of Agricultural Engineering Volume VI Information Technology. Edited by CIGR--The International Commission of Agricultural Engineering; Volume Editor, Axel Munack. St. Joseph, Michigan, USA: ASABE.

E. S. Sepúlveda Bustos, F. S. Zazueta, R. Bucklin, E. Holzapfel Hoces. Rapid Prototyping of Learning Objects for Agricultural and Biological Engineering Education. 2006 Applied Engineering in Agriculture. Vol. 22(3): 461-475.

Zazueta, F.S. 2006. Curriculum Development Using Ontologies and Learning Objects. Proceedings of the XVI CIGR World Congress. Bonn, Germany. http://www.2006 cigr.org/proceedings.html

Vergot,P., F.S. Zazueta and H.W. Beck. 2004. Use of personal digital assistants for extension program record keeping. Journal of extension. Vol. 42 Number 4. http://www.joe.org/joe/2004august/tt6.shtml

Zazueta. F.S., and P. Vergot III. Use of Handheld Computers in Agriculture. Proceedings of the 5th Congress of the European Federation of Information Technology in Agriculture. July 2003,. Debrecen, Hungary. pp: 12-16.

Zazueta, F.S., J. Xin, T.A. Wheaton and K.T. Morgan. Citrus Microirrigation Decision Support System. World Congress on Computers in Agriculture and Natural Resources. Proc., ASAE. Pp.803-808. 2001.

Zazueta, F.S., A.J. Wilkening, H.W. Beck, L.A. Halsey and T. Hintz. A centralized/distributed model for information technology resources. Computers in Agriculture. 7th International Conference Proc., ASAE. Pp. 292-299. 1998.

Albrigo, L.G., J.I. Valiente and F.S. Zazueta. Use of Internet video-conferencing technology for distance education in agriculture. Computers in Agriculture. 7th International Conference Proc., ASAE. Pp. 402-412. 1998.

Selected Grants

F.S. Zazueta, W. Cooke. CLAST Web Implementation. Florida Department of Education. 2007-2008. $1'500,000.

F.S. Zazueta, W. Cooke.. College level Academic Skills Test Support. Florida Department of Education. 2006-2009. $1'257,563.

F.S. Zazueta, W. Cooke. College level Academic Skills Test Administration. Florida Department of Education. 2002-2006.$1'541,492.

INTERNATIONAL WORK

Conducted international work that includes university exchange programs, teaching, consulting, organizing international conferences and hosting graduate and undergraduate visitors such as:

- International short term consulting in México, Panamá, Ecuador, El Salvador, Costa Rica, Honduras, Uruguay, Jamaica, Pakistan, Chile, Argentina, New Zealand, China, Japan, and Spain since 1976, in the areas of education, water management, photogrammetry, GIS, expert systems, data acquisition and control, and computer systems integration.
- Chairman of the International Conference on Computers in Agriculture. ASAE (American Society of Agricultural Engineers), 2009, 2006, 1998, 1997,1996, 1995, 1992, 1990, 1988, 1986, 1984.
- Exchange programs between University of Florida and universities in México, Spain, Brasil, Chile, and The Netherlands.
- Adjunct faculty to the Agricultural Engineering Department, UNICAMP, Campinas Brazil, and the the Agricultural Engineering Department, Universidad de Concepción Chillán, Chile.

Selected Consulting

2016	External Advisory Committee, Universidad de Santigo de Compostela, Spain.(3 days)
2014	Review of National Strategic Research Plan. Ministry of Business and Innovation, New Zealand (4 days)
2010	Research computing strategies, PROCISUR, Montevideo, Uruguay (5 days)
2009	IT in Education, On-line Course Development Strategies, University of Connecticut, CT, US. (2 days)
2008	Use of Information Technology in Poverty Alleviation. Ministry of Commerce. Beihai, China. (5 days)
1996	Object oriented redevelopment of a GIS production system. GESA. Guadalajara, México. (2 days)
1995	Assessment of DBMS and GIS requirements for cadastral applications. DICARTU. México D.F. (5 days)
1993	Development of integrated software for management of a canal network (módulo 3, Distrito de Riego Delicias Chihuahua) serving 17,000 users, that includes database management, GIS, biological simulation, hydraulic canal network simulation and expert systems, Instituto Mexicano de Tecnología del Agua. IMTA, Cuernavaca, México. (2 years)
1992	Troubleshooting oil-well drilling rigs control software PEMEX/ROTENCO. Chiapas, México. (4 days).

Selected International Professional Service

- Secretary General Elect, International Commission of Agricultural and Biological Engineering (CIGR), 2017
- President, International Commission of Agricultural and Biological Engineering (CIGR), 2011-2012.
- Chairman, International Federation of IT in Agriculture (INFITA), 2008-2009.2011-2014
- Chairman, Sustainable Agricultural Production Systems: United Nations Commission on Sustainable Development. WFEO-COMTECH (World Federation of Engineering Organizations Committee on Technology), 2000.
- Chairman, World Congress on Computers in Agriculture, ASAE, SBI-Agro (Brazilian Society of Informatics in Agriculture), EFITA (European Federation of Information Technologies in Agriculture), AFITA (Asian Federation of Information Technologies in Agriculture), CIGR (International Commission of Agricultural Enginering), WFEO. 1999
- Member of the Food and Agriculture Committee for WFEO (World Federation of Engineering Organizations), 1996-2000.
- Chairman of the Food and Agriculture Committee for UPADI (Unión Panamericana de Asociaciones de Ingeniería), 1993.
- Chair, Co-chair, or member of the organizing committee of the International Conference on Computers in Agriculture, ASAE/ASABE, 1982-date.

SELECTED INVITED LECTURES OR SPEECHES (Keynote or Plenary Speaker only)

2016 Creating an Adoption Ecosystem. National Extension Conference. Orlando Florida. **Keynote Speaker.**

2016 Strategies for the future of Agricultural Engineering: Water. Semana de Irrigación. Universidad Autónoma Chapingo. **Plenary Session.**

2015 Convergence as a Driver of Innovation. Food Dynamics Conference. Ingls, Austria. Keynote Speaker.

2014 Big Data. CIGR World Congress. Beijing, China. **Keynote Speaker**.

2014 Tecnologías de Información en Agricultura. Congreso de la Asociación Latinoamericana y de Caribe de Ingeniería Agrícola. Cancún, México. **Keynote Speaker.**

2014 Asian Federation of IT in Agriculture Conference on Computers in Agriculture. AFITA. Perth, Australia. **Keynote Speaker.**

2014 Tecnología e Innovación en Agricultura. Feria de las Flores, Boquete, Panama. Keynote Speaker.

2013 IT in Learning, Extension and Research. Hungarian Association of IT in Agriculture. Via videoconference. **Plenary Speaker.**

2013 World Conference on Computers in Agriculture. INFITA. Turin, Italy. **Keynote Speaker**.

2013 Symposium de Tecnología e Ingeniería. Universidad Autonóma Chapingo, México. **Keynote Speaker.**

2013 Tecnología de Información en Agricultura. Congreso APRESID, Rosario, Argentina. **Plenary Session.**

2013 Global Challenges Forum. ASABE, USA. **Panelist.**

2013 World Conference on Computers in Agriculture. AFITA, EFITA, PanAFITA. Torino, Italy. **Keynote Speaker.**

2012 Nanotechnology, Biotechnology and IT in Precision Agriculture. Foro Técnico sobre Convergencia de Tecnología e Inovación. San Jose, Costa Rica. PROCISUR/IICA, **Keynote Speaker.**

2012 A future for agricultural and biosystems engineering. CIGR International Meeting. Valencia, Spain. **Presidential address.**

2011 IT in higher education. CIGR International Symposium. Sustainable Bioproduction - Water, Energy and Food (WEF 2011) Tokyo, Japan. **Keynote Speaker.**

2011 TIC en agricultura. PROCISUR. Montevideo Uruguay. **Plenary Session (online).**

2010 Advances in IT in Agriculture. International Conference. Chinese Society for Agricultural Machinery (CSAM) and Asian Association for Agricultural Engineering (AAAE), Shanghai, China. **Keynote Speaker.**

2010 IT in Agriculture. 2nd Congress on Agroinformatics. Sociedad Argentina de Informática (SADIO), Buenos Aires Argentina. **Keynote Speaker.**

2009 Challenges for Agricultural RDI: Perspectives for the future. PROCISUR. Montevideo, Uruguay. **Keynote Speaker.**

2009 Improving the quality of academic programs with IT. Asociación Latinoamericana de Ingenieros Agrícolas (ALIA), San José, Costa Rica. **Keynote Speaker**.

2009 Education in the XXIst Century. V Congreso Nacional y II Congreso Ibérico "AgroIngeniería 2009". Lugo, Spain, **Keynote Speaker.**