

**JAMES R. GILLEY, P.E.**  
 Professor  
 Biological & Agricultural Engineering Department  
 Texas A&M University

**EDUCATION:**

<u>Degree</u>	<u>Institution</u>	<u>Major Field of Study</u>	<u>Dates of Degree</u>
Ph.D.	University of Minnesota	Agricultural Engineering	12/71
M.S.	Colorado State University	Agricultural Engineering	6/68
B.S.	Colorado State University Pueblo College	Agricultural Engineering Engineering	6/66

**PROFESSIONAL EXPERIENCE:**

<u>Employer</u>	<u>Position</u>	<u>Nature of Position</u>	<u>Location</u>	<u>Dates of Employment</u>
Texas A&M	Professor	Teaching/Research	College Station, TX	1/02-
Texas A&M	Professor & Head	Administration	College Station, TX	1/94 - 1/02
IA State Univ.	Professor & Head	Administration	Ames, IA	11/88-1/94
Univ. of NE	Interim Head	Administration	Lincoln, NE	2/88-11/88
Univ. of NE	Professor	Research/Teaching	Lincoln, NE	7/81-2/88
Univ. of NE	Associate Professor	Research/Teaching	Lincoln, NE	1/75-7/81
Univ. of MN	Assistant Professor	Teaching/Research	St. Paul, MN	1/72-1/75
Univ. of MN	Instructor	Teaching/Research	St. Paul, MN	9/68-1/72
CO State Univ.	Research Fellow	Research	Fort Collins, CO	6/66-9/68

**PROFESSIONAL REGISTRATION**

Registered Professional Agricultural Engineer in Nebraska.

**PROFESSIONAL AND SCIENTIFIC ORGANIZATIONS**

American Society of Agricultural and Biological Engineers  
 Irrigation Association  
 Sigma Xi, Phi Kappa Phi, Sigma Tau, Alpha Epsilon, Gamma Sigma Delta, Alpha Zeta, and Phi Theta Kappa

**HONORS**

Awarded the ASABE Massey-Ferguson Education Award - July, 1998  
 Elected to the grade of Fellow of ASABE - 1993  
 ASABE Honor Paper Award – 1978  
 Member of the European Academy of Sciences  
 Who's Who in Engineering - 1980, 1982  
 Who's Who in the Midwest - 1979, 1983  
 Who's Who in Technology Today - 1979  
 Member of Seven Honor Societies

**INTERNATIONAL ACTIVITIES:**

Participated in research and teaching programs in Australia, China, Malaysia, Israel, Romania, Republic of South Africa, Egypt, Morocco, Tunisia, Thailand, Indonesia, Russia, USSR, Ukraine, Belgium, Great Britain, Germany, Netherlands, Norway and Portugal.

2004 Traveled to Belgium, Ireland, Australia and New Zealand. Continued collaborative research projects with Dr. Jan Feyen at the Catholic University of Leuven, Belgium. Visited research colleagues and research facilities in Ireland, Australia and New Zealand. Attended the International Conference on Hydro-Science and Engineering, Brisbane, Australia. May 12 – June 25.

2002 Faculty Development Leave with the Catholic University of Leuven, Belgium. Feb 19 – Aug 13.

- 2001 Traveled to China and visited the Chinese Agricultural University in Beijing, the Chinese Academy of Agricultural Sciences in Beijing and toured the three gorges project. May 28 - June 9. Discussed potential joint research and teaching projects.
- 2000 Traveled to Australia, New Zealand, Malaysia and Belgium. Attended the Agricultural Engineering Conference in Adelaide, Australia; visited agricultural production practices in New Zealand; served as the external reviewer for the Agricultural and Biological Engineering Department at the University of Putra, Malaysia; and visited the research laboratories at the Catholic University of Leuven, Belgium. March 23 - May 2.
- 1999 Traveled to China and visited the Chinese Agricultural University in Beijing, the Chinese Academy of Agricultural Sciences in Beijing and toured the three gorges project. October 6-16.
- 1999 Served as the external reviewer for the Agricultural and Biological Engineering Department at the University of Putra, Malaysia November 13-24.
- 1998 Attended the 1998 meeting of EURO AGENG meeting in Oslo, Norway and traveled through portions of Norway. August, 1998.
- 1998 Traveled to the Agricultural University of Bogor, Indonesia and served as an overseas visiting scholar, February 9-23, 1998.
- 1997 Traveled to Belgium to establish a new exchange agreement between the Catholic University of Leuven, Belgium and Texas A&M University, May 15-31, 1997.
- 1997 Invited to participate in a 6 person delegation from the U.S. to discuss redirection of Russian undergraduate education system for the BS degree in Agricultural Engineering curricula. Moscow, Russia from April 19-26.
- 1997 Invited to participate in a 5 person scientific team from the U.S. to provide review and recommendations for research proposals under the Foods Crops Component of the Agricultural Technology Utilization and Transfer Project (ATUT) for the country of Egypt. The project was funded by the Agency for International Development and administered by the U.S. Department of Agriculture, Foreign Agricultural Service. Cairo, Egypt from January 3-10.
- 1995 Participated in International Symposium on the "Direction of Agro-Industry in Thailand Globalization Effort" in Bangkok Thailand, November 25-December 5, 1995.
- 1994 Presented a paper at the NATO Advanced Research Workshop "Sustainability of Irrigated Agriculture," Vimeiro, Portugal, March 21-26.
- 1993 Traveled to Belgium to establish a new exchange agreement between the Catholic university of Leuven, Belgium and Iowa State University, October 30-November 9.
- 1993 Traveled to Belgium to continue cooperative research grant with J. Feyen, Catholic University of Leuven, Jan 29-Feb 6.
- 1992 Presented a paper at the International Conference "Advances in Planning, Design, and Management of Irrigation Systems as Related to Sustainable Land Use," Leuven, Belgium, September 14-17.
- 1992 Visiting Professor at the Faculty of Agricultural Sciences, Center for Land and Water Management and Center for Irrigation Engineering, Catholic University of Belgium, Leuven, Belgium, Feb 28 - March 27.

- 1991 Continued research program at the Catholic University of Leuven, Belgium, May 19-25 and Nov 16-20.
- 1990 Participated in the ISU-USSR exchange. Visited Moscow, Kiev and Yalta. Presented a paper on Energy Conservation and Efficiency in Agriculture at a joint symposium, Oct 1-13.
- 1990 Traveled to Belgium to continue joint research project at the Catholic University of Leuven, May 6-16 and Oct 13-17.
- 1989 Invited participant to develop irrigation scheduling models. Sponsored by FAO. Meeting held in Leuven, Belgium, Feb. 26-March 6.
- 1989 Participated in Exchange program with the USSR Research Academy. Visited the Agriphysics Institute in Leningrad, Nov 4-11.
- 1988 Traveled to Belgium to participate in NATO Research Grant with J. Feyen and prepare NATO research proposal with Louis Pereira of Portugal, April 26-May 11.
- 1988 Received a renewal of the NATO Collaborative Research Grant to support travel between the U.S. and Belgium for J. Gilley and J. Feyen. Traveled to Belgium to continue cooperative research grant with J. Feyen Catholic University of Leuven, Sept 26-Oct 1.
- 1988-93 Served as the Technical Advisor to a NATO sponsored Science for Stability Project on irrigation research in Portugal, Technical University of Lisbon. Professor Luis S. Pereira was the project director. Traveled to Portugal to participate in project activities on nine separate occasions: Oct 1-9, 1988; May 27-June 12, 1989; Nov 11-Nov 19, 1989; May 26-June 7, 1990; May 11-19, 1991; Nov 5-16, 1991; June 8-19, 1992; Jan 15-29, 1993; October 20-30, 1993.
- 1987 Received a NATO Collaborative Research Grant to support travel between the U.S. and Belgium for J.R. Gilley and J. Feyen (Catholic University of Belgium). To support cooperative research in irrigation optimization. Traveled to Belgium, May 1-15.
- 1986 Member of an US-AID review team for the Tunisia Farming Systems Research, Tunis and surrounding area project, June 14-25.
- 1984 Visited AID-Morocco dryland farming project, Settat, May 1-7.
- 1984 Visiting Professor at the Faculty of Agricultural Sciences, Irrigation Engineering, Catholic University of Belgium, Leuven, Belgium, March 1 - September 1 (Sabbatical Leave).
- 1983 Selected by ASAE to present a week of seminars on Irrigation Technology with three other ASAE members, also visited new irrigation project developments in Egypt. Cairo, Egypt, January.
- 1981 Visiting Professor at the Faculty of Agricultural Sciences, Irrigation Engineering, Catholic University of Belgium, Leuven, Belgium, October 17 - November 19.
- 1981 Host Professor for Dr. Ioan Paltineanu, Exchange scientist from Romania, August 15-October 5.
- 1981 Presented an invited paper at the South African Irrigation Institute, Johannesburg, South Africa and visited irrigation research facilities, February 2-11.
- 1980 Participated in the Romania-Nebraska Scientist Exchange Program, Bucharest, and other cities, Romania, May 19-July 1.

1979 Presented a paper at the International Conference on Operations Research in Agriculture and Water Resources, Jerusalem, Israel, November.

#### **CONSULTING:**

Served as a technical consultant to several irrigation companies, state and federal agencies including the following:

- 1996-present Consultant for Coachella Valley Water District involving irrigation water management practices, feasibility and conservation.
- 1987-92 Preparation of a chapter on irrigation water requirements for the National Engineering Handbook, USDA-SCS.
- 1985 Valmont Industries, Economic Feasibility of Stirling Engine.
- 1984 USDA, Alternative Irrigation Power Study - Stirling Engine Analysis.
- 1982-84 Nebraska State Energy Office, Wind Energy Analysis.
- 1982-83 Presented Irrigation Seminars for Latin Americans (New Orleans, November 1982; Miami, November 1983).
- 1982 COMSAT, Advanced Irrigation Scheduling Methods.
- 1982-present Expert witness in irrigation engineering.
- 1980-81 DOE Contract on Energy Saving Procedures in Irrigation. (Received recognition as one of the top 10 projects in the U.S.).
- 1979-80 Joint USDA-DOE Contract on the Economic Analysis of Wind Energy for Irrigation.
- 1979 EPA Contract for Training Workshops on Land Treatment of Municipal Wastes, February.
- 1979 Presented Technical Workshop for Carborundum Irrigation Co., Mexico City, January.
- 1978-present Consultant for Irrigation Equipment Manufacturers.
- 1977-1984 Irrigation Association Short Courses.

#### **PEER-REVIEWED PUBLICATIONS**

**TOTAL CAREER: 57; TOTAL 1988-present: 23; TECHNICAL PAPERS, REPORTS AND PRESENTATIONS: over 100**

Dierckx, J., J.R. Gilley, J. Feyen and C. Belmans. 1988. Simulations of soil-water dynamics and corn yields under deficit irrigation. *Irrigation Science* 9:105-125.

Gilley, J.R. 1989. Discussion of "Friction correction factor for center pivot irrigation systems" by J. M. Reddy and H. Apolayo. *Journal of Irrigation and Drainage Engineering*, ASCE 115(4): 769-770.

Martin, D.L., J.R. Gilley and R.J. Supalla. 1989. Evaluation of irrigation planning decisions. *Journal of the Irrigation and Drainage Engineering*, ASCE 115(1): 58-77.

Leander, W.S., Jr., D. L. Martin and J. R. Gilley. 1991. Performance of seedigated and conventionally planted crops. *Applied Engineering in Agriculture* 7(2): 170-176.

- Gilley, J. R., C. A. Hackbart, L. E. Stetson and J. Feyen. 1991. Energy Management. In Management of Farm Irrigation Systems (G. J. Hoffman, T. A. Howell and K. H. Solomon, eds). p 719-746.
- Martin, D. L., J. R. Gilley and R. W. Skaggs. 1991. Soil water balance and management. In Managing Nitrogen for Groundwater Quality and Farm Profitability (R.F. Follett, D.R. Keeney and R.M. Cruse, eds). Soil Science Society of America. p 199-235.
- Munir, H.M., D.E. Eisenhauer and J.R. Gilley. 1992. Performance of chemigation backflow prevention assemblies. *Applied Engineering in Agriculture* 8(2): 211-219.
- Thompson, A.L., J.R. Gilley and J.M. Norman. 1993. A sprinkler water droplet evaporation and plant canopy model: I. model development. *Transactions of the ASAE* 36(3):735-741.
- Thompson, A.L., J.R. Gilley and J.M. Norman. 1993. A sprinkler water droplet evaporation and plant canopy model: II. model application. *Transactions of the ASAE* 36(3):743-750.
- Martin, D.L. and J.R. Gilley. 1993. Irrigation water requirements. Chapter 2, Part 623 (Section 15, Irrigation), *National Engineering Handbook*. United States Department of Agriculture, Soil Conservation Service. 284 p.
- Pereira, L.S., R.A. Feddes, J.R. Gilley and B. Lesaffre. 1996. Sustainability of Irrigated Agriculture (Editors). NATO Advanced Science Institutes Series. Kluwer Academic Publishers. 631 p.
- Gilley, J. R. 1996. Sprinkler Irrigation Systems. In Sustainability of Irrigated Agriculture (L.S. Pereira, R.A. Feddes, J.R. Gilley, and B. Lesaffre, eds). NATO Advanced Science Institutes Series. Kluwer Academic Publishers. pp. 291-307.
- Pereira, L.S., J.R. Gilley and M.E. Jensen. 1996. Research agenda on sustainability of irrigated agriculture. *Journal of Irrigation and Drainage Engineering*, ASCE 122 (3): 172-177.
- Xevi, E., J. Gilley, and J. Feyen. 1996. Comparative study of two crop yield simulation models. *Agricultural Water Management* 30: 155-173.
- Thompson, A.L., D.L. Martin, J.M. Norman, J.A. Tolck, T.A. Howell, J.R. Gilley and A.D. Schneider. 1997. Testing of a water loss distribution model for moving sprinkler systems. *Transactions of the ASAE* 40(1): 81-88.
- Wallender, W.W., K.K. Tanji, J.R. Gilley, R.W. Hill, J.M. Lord, C.V. Moore, R.R. Robinson and E.C. Stegman. 2006. Water flow and salt transport in cracking clay soils of the Imperial Valley, California. *Irrigation and Drainage Systems* 20(4):361-387.
- Wallender, W.W., K.K. Tanji, B. Clark, R.W. Hill, E.C. Stegman, J.R. Gilley, J.M. Lord and R.R. Robinson. 2007. Drip irrigation and salt flow model for table grapes in Coachella Valley, California. *Irrigation and Drainage Systems* 21(1):79-95.