

SERGIO C. CAPAREDA, Assistant Professor

EDUCATION

Ph.D. Agricultural Engineering: Texas A&M University, August 1990
M. Eng'g, Asian Institute of Technology, Bangkok, Thailand, August 1985
B.S. Agricultural Engineering: Univ. of the Philippines, Los Baños, March 1982

TAMU EMPLOYMENT

November 2005 to Present: Assistant Professor, BAEN, TAMU
April 2003 – October 2005: Visiting Research Scientist, BAEN, TAMU

OTHER PROFESSIONAL EMPLOYMENT:

Associate Professor, College of Engineering and Agro-Industrial Technology, University of the Philippines at Los Baños, College, Laguna, Philippines (1997-2004)
Assistant Professor, College of Engineering and Agro-Industrial Technology, University of the Philippines at Los Baños, College, Laguna Philippines (1990-1997)
Instructor, College of Engineering and Agro-Industrial Technology, University of the Philippines at Los Baños, College, Laguna Philippines (1983-1990)
Research Assistant, College of Engineering and Agro-Industrial Technology, University of the Philippines at Los Baños, College, Laguna Philippines (1982-1983)

CONSULTING, PATENTS, ETC.:

Patents

BIOFUEL PROCESSING SYSTEM, Serial No. 12/118,484, Shared with Mark Holtzaple and Kenneth Hall.

PYROLYSIS AND GASIFICATION SYSTEMS FOR BIOMASS FEEDSTOCK, Serial No. 61/302,001, shared with Calvin B. Parnell, Jr. and Wayne A. LePori.

Consulting:

EFTEch, College Station, Texas 2008- present

STATES REGISTERED:

Professional Engineer: May 2005, Texas.

PRINCIPAL PUBLICATIONS OF THE LAST FIVE YEARS:

1. **Capareda, S. C.**, S. Mukhtar, S. Engler and L. B. Goodrich. 2010. Energy Usage Survey of Dairies in the Southwestern United States. Applied Engineering in Agriculture. Volume 26(4): 667-675. ASABE, St. Joseph, MI.
2. Aquino, F. L., **S. C. Capareda** and C. B. Parnell, Jr. 2010. Elucidating the Solid, Liquid and Gaseous Products from Batch Pyrolysis of Cotton Gin Trash. Transactions of the ASABE. Volume 53(3): 651-658. ASABE, St. Joseph, MI.
3. Maglinao, A. L. and **S. C. Capareda**. 2010. Predicting Fouling and Slagging Behavior of Dairy Manure (DM) and Cotton Gin Trash (CGT) During Thermal Conversion. Transactions of the ASABE. Volume 53(3): 903-909. ASABE, St. Joseph, MI.

4. L. B. Goodrich, W. B. Faulkner, **S. C. Capareda**, C. Krauter and C. B. Parnell, Jr. 2009. Particulate Matter Emissions From Reduced-Pass Almond Sweeping. Transactions of the ASABE, Vol. 52 (5): 1669-1675., ASABE, St. Joseph, MI.
5. Faulkner, W. B., L. B. Goodrich, V. S. V. Botlaguduru, **S. C. Capareda** and C. B. Parnell, Jr. 2009. Particulate Matter Emission Factors for Almond Harvest as a Function of Harvester Speed. J. Air & Waste Manage. Assoc. Volume 59 (943-949).
6. Wanjura, J. D., W. B. Faulkner, C. B. Parnell, Jr., B. W. Shaw, **S. C. Capareda** and R. E. Lacey. 2009. Source Sampling of Particulate Matter Emissions from Cotton Harvesting: System Field Testing and Emission Factor Development. Transactions of the ASABE Volume 52 (2): pp 591-597., ASABE, St. Joseph, MI.
7. Wanjura, J.D., C. B. Parnell, Jr., B. W. Shaw, **S. C. Capareda**, and R. E. Lacey. 2009. Source Sampling of Particulate Matter Emissions from Cotton Harvesting – System Design and Evaluation. Applied **Engineering in Agriculture**. Vol. **25(1): 85-96**. St. Joseph, MI.
8. Buser, M. D. J. D. Wanjura, D. P. Whitelock, **S. C. Capareda**, C. B. Parnell, Jr., B. W. Shaw and R. E. Lacey. 2008. Estimating FRM PM10 Sampler Performance Characteristics Using Particle Size Analysis and Collocated TSP and PM10 Samplers: Cotton Gins. **Transactions of the ASABE**. Vol. **51(2): 695-702**. St. Joseph, MI.
9. Mukhtar, S. A. Mutlu, **S. C. Capareda**, and C.B. Parnell, Jr. 2008. Seasonal and Spatial Variations of Ammonia Emissions from Open-Lot Dairy Operation. *J. Air and Waste Management*. Volume **58: 369-376**. March 2008.
10. Wanjura, J.D., B. W. Shaw, C.B. Parnell, Jr., R. E. Lacey and **S. C. Capareda**. 2008. Comparison of Continuous Monitor (TEOM) and Gravimetric Sampler Particulate Matter Concentrations. **Transactions of the ASABE**. Vol. **51(1): 251-257**. ASABE. St. Joseph, MI.
11. **Capareda, Sergio C.**, C.N. Boriack, S. Mukhtar, A. Mutlu, B.W. Shaw, R.E. Lacey and C.B. Parnell, Jr. 2005. The Recovery of Ammonia and Hydrogen Sulfide from Ground Level Area Sources Using Dynamic Isolation Flux Chambers: Bench Scale Studies. *J. Air and Waste Management*. Volume **55:999-1006**. July 2005.
12. Wang, L., C.B. Parnell, Jr., B.W. Shaw, R.E. Lacey, M.D. Buser, L.B. Goodrich and **S.C. Capareda**. 2005. Correcting PM₁₀ Over-Sampling Problems for Agricultural Particulate Matter Emissions: preliminary Study. *Transactions of the ASAE*. Vol **48(2):749-755**. ASAE St. Joseph, MI.

Written Section in a Book/Comprehensive Report

Texas Renewable Energy Resources. 2009. State Energy Conservation Office Publication. Austin, Texas Chapter 12. Biomass Energy (wrote the Biomass Energy Conversion section)

Extension Publication

1. Mukhtar, S., B. Goodrich, C. Engler, and S. Capareda. 2008. Dairy biomass as a renewable fuel source. Texas AgriLife Extension Publication L-5494. Texas A&M University System.
2. Mukhtar S. and S. C. Capareda. 2006. Manure to Energy: Understanding Processes, Principles and Jargon. Texas Cooperative Extension Publication No. E-428-11/06. Texas A&M University System.

SCIENTIFIC AND PROFESSIONAL SOCIETIES OF WHICH A MEMBER:

ASAE – American Society of Agricultural Engineers
ASEE – American Society for Engineering Education
PSAE – Philippine Society of Agricultural Engineers

HONORS AND AWARDS:

2010 **Texas Environmental Excellence Award**, the highest environmental quality award for agriculture in the State of Texas, member of team receiving award, given by the Texas Commission for Environmental Quality (TCEQ).
Environmental Quality Student Award, Ph.D. Research, 1990, BAEN, TAMU
German Academic Exchange Scholar (DAAD) M.Eng'g Degree, AIT, Thailand 1984-1985
Don Jaime Zobel de Ayala Fellowship BS Ag. Eng'g Degree, UPLB, Philippines 1980-1982

INSTITUTIONAL AND PROFESSIONAL SERVICE IN THE LAST FIVE YEARS:***Professional***

Chair of the ASABE SE 414 Renewable Energy for Power Generation Com.:2008-2009
Vice-Chair of the ASABE SE 414 Renewable Energy for Power Generation Com.:2007-2008
Secretary of the ASABE SE 414 Renewable Energy for Power Generation Com.:2008-2009
Member, ASABE SE 305, FPE 709, PM3/7/23 Committees (2005- present)
Associate Editor and Member of Editorial Board: International Journal of Integrated Energy Systems, Barcelona, Spain, 2008 - present

University

Senior Adviser –AGSM Club, BAEN TAMU (2007-2008)
Junior Adviser – AGSM Club, BAEN, TAMU (2006-2007)
Member AGSM Curriculum Committee, BAEN, TAMU

PROFESSIONAL DEVELOPMENT ACTIVITIES IN THE LAST FIVE YEARS:

Sabbatical on Air Quality (2003-2005), Center for Agricultural Air Quality Engineering and Sciences, BAEN, TAMU