Sergio Capareda, Ph.D., P.E. and Faculty Fellow
Professor, Department of Biological and Agricultural Engineering (BAEN)
College of Agriculture and Life Sciences (COALS)
Texas A&M University/Texas AgriLife Research

Education and Training

Institution	Degree/Year	Field of Study
University of the Philippines/Los Baños	BSAE/1982	Agricultural Engineering
Asian Institute of Technology	M.Eng'g/1985	Energy Technology
Texas A&M University	PhD/1990	Agricultural Engineering

Professional Experience, and Employment

2016- present	Professor	Texas A&M University
2011- 2015	Associate Professor	Texas A&M University
2005 - 8/2011	Assistant Professor	Texas A&M University
2003 - 2005	Visiting Research Scientist	Texas A&M University
1997-2004	Associate Professor	University of the Philippines at Los Baños,
1990-1996	Assistant Professor	University of the Philippines at Los Baños
1982-1990	Instructor	University of the Philippines at Los Baños

Awards and Honors

2018 **ASABE Superior Paper Award** given at the 2018 ASABE International Meeting held in Detroit, USA on July 30th, 2018 for the paper entitled "Effective Use of Dairy manure Mixed with Sand Bedding for Gasification" authored by H. Nam, A. L. Maglinao and Sergio C. Capareda.

2017 **ASABE Outstanding Leadership in Energy System's Renewable Power Generation Committee** given by the ASABE Energy Systems Committee on July18, 2017 ASABE Annual Meeting held in Spokane, Washington.

2017 **USAID-STRIDE Visiting Professorship Award** at Mariano Marcos State University, Batac City, Ilocos Norte, Philippines from June 1-21, 2017 on Implementation of Professional Science Masters (PSM) program in Renewable Energy particularly the presentation of complete and comprehensive lectures on Biomass Energy Conversion Course.

2016 **Charles H. Barklay Jr. '45 Fellow for Engineering Outstanding Contributions** (Received Spring 2016), Dwight Look College of Engineering, Texas A&M University

2015 **Texas A&M AgriLife Research Vice Chancellors Award in Excellence for International Involvement**, College of Agriculture and Life Sciences (COALS) Received Spring 2016

2015 **Texas A&M AgriLife Research Faculty Fellow**, College of Agriculture and Life Sciences (COALS) Received Spring 2016

2015 **Award for Excellence in Research**, Biological and Agricultural Engineering Department, TAMU.

Editorial Service

Associate Editor, International Journal of Integrated Energy Systems (Barcelona, Spain)
Associate Editor, ASABE Transactions Journal on Energy Systems (St. Joseph, MI)
Member of Editorial Board, International Energy Journal (AIT, Bangkok, Thailand)
AdHoc Reviewer of at least 5 journals (ASABE, Elsevier and ASME Publications)

Professional Membership

Member, American Society of Biological and Agricultural Engineers (ASABE), USA, 1999
Member, Philippine Society of Agricultural Engineers (PSAE), Philippines, 1990
Member, Texas Society of Professional Engineers (TSPE), 2005
Member, American Society for Engineering Education (ASEE), 2005

Selected Publications (2019 only)

1. Maglinao, Randy Latayan, Eleazer P. Resurreccion, Sandeep Kumar, Amado Maglinao, Sergio Capareda and Bryan Moser. 2019. Hydrodeoxygenation-Alkylation Pathway for the Synthesis of a Sustainable Lubricant Improver from Plant Oils and Lignin-Derived Phenols. Ind. Eng. Chem. Res. 1-50 (2019) DOI: 10.1021/acs.iecr.8b05188 Publication Date (Web) 22 Jan 2019.
2. Choi, Julius, Hyungseok Nam and Sergio C. Capareda. 2019. Effect of metal salts impregnation and microwave-assisted solvent pretreatment on selectivity of levoglucosenone and levoglucosan from vacuum pyrolysis of ashe juniper wastes. Journal of Environmental Chemical Engineering 7 (2019) 1-8 [102796]. Elsevier Science Direct, UK.
3. Chen, Dongyu, Dongxiao Gao, Sergio C. Capareda. Shunchao Huang and Ying Wang. 2019. Effects of hydrochloric acid washing on the microstructure and pyrolysis bio-oil components of sweet sorghum bagasse. Bioresource Technology 277 (2019) 34-45. Elsevier Science Direct, UK.
4. Ido, Alexander L., Mark Daniel G. de Luna, Dennis C. Ong and Sergio C. Capareda. 2019. Upgrading of *Scenedesmus obliquus* oil to high-quality liquid-phase biofuel by nickel-impregnated biochar catalyst. Journal of Cleaner Production Volume 209, 1 February 2019, Pages 1052-1060. Elsevier Science Direct, UK.
5. Choi Julius, Wangyun Won and Sergio Capareda. 2019. The economical production of functionalized Ashe juniper derived-biochar with high hazardous dye removal efficiency. Industrial Crops and Products, Volume 137, 1 October 2019, Pages 672-680, Elsevier Science Direct, UK.
6. Morales, Marina Moura, Marcia Regina Marcilio, Bruno Rafael Silva, Wyllian Winckler Sartori, Anderson Ferreira and Sergio C. Capareda. 2019. Elucidating the chemical properties and potential applications of wood vinegars by controlled thermal treatments. International Journal of Advanced Engineering Research and Science (IJAERS) Volume 6(5): 545-560. https://dx.doi.org/10.22161/ijaers.6.5.71.
7. Capareda, S. C. 2019. Development of Smart Grid System for Small Research Complex in Texas. Part 1: Yearly Demand/Supply Profile and Percentage Contribution of Renewables. International Journal of Scientific Engineering and Science. ISSN (Online): 2456-7361. Volume 3, Issue 4: pp. 1-5. Available at: file:///G:/My%20Drive/Publications/2019/44-IJSES-V3N4-SmartGrid-2019-SCC.pdf. Accessed June 20, 2019.
8. Hernandez-Maglinao, Joan R. and Sergio C. Capareda. 2019. Improving the Surface Areas and Pore Volumes of Bio-char Produced from Pyrolysis of Cotton Gin Trash via Steam Activation Process. International Journal of Scientific Engineering and Science Volume (3), Issue (6), pp. 15-18. 2019. Available at: file:///G:/My%20Drive/Publications/2019/73-IJSES-V3N4-Joan-AC-2019.pdf. Accessed on June 20, 2019.
9. Hernandez, Joan R. and Sergio C. Capareda. 2019. Development of Highly Digestible Grain Sorghum Lines Suitable for Efficient Dry-Grind Ethanol Production. Journal of Sustainable Bioenergy Systems (JSBS). 2019, 9, 89-118.
10. Capareda, Sergio C. 2019. Alligator Grass (*Alternanthera philoxeroides*), a nuisance aquatic plant but a potential feedstock for biofuels production. Accepted for publication on May 5, 2019 at the Water Science and Engineering Journal.
11. Chen, Dongyu, Dongxiao Gao, Sergio C. Capareda, Shuang E, Fengrui Jia and Ying Wang. 2019. Influences of hydrochloric acid washing on the thermal decomposition behavior and thermodynamic parameters of sweet sorghum stalk. Accepted for publications on 12 October 2019 by Renewable Energy.

Patents/Provisional Patents

1. Holtzapple, M. K. Hall and S. C. Capareda. Integrated Biofuel Production System. US Patent No. 8,153,850 (Issued April 10, 2012).
2. Capareda, S. C., C. B. Parnell, Jr., D. Carney and W. A. LePori. Pyrolysis amd Gasification System for Biomass Feedstock. Provisional Patent with Serial No. 61/302,001 (Issued February 5, 2010).

Book Chapters

1. Capareda. S. C. 2011. Biomass Energy Conversion. Chapter 10. In: Sustainable Growth and Applications in Renewable Energy Sources. Majid Nayeripour and Mostafa Kheshti (eds). Intech Publications, Croatia. 450 pp., December 12, 2011.
2. **Texas Renewable Energy Resources**. 2009. State Energy Conservation Office Publication. Austin, Texas Chapter 5. Biomass Energy (wrote the Biomass Energy Conversion Technologies Section).
3. Liu, X, M. Farmer and **S. Capareda**. 2010. The Economic Feasibility of Electricity Generation from Biomass on the South Plains of Texas (Chapter 14). In: The Economics of Alternative Energy Sources and Globalization. Schmitz, A., N. Wilson, C. Moss and D. Zilberman (Eds). In Press. Bentham Science Publishers, Sharjah, United Arab Emirates.

Book Written

1. **Capareda, S. C. 2014.** Introduction to Biomass Energy Conversions. CRC Press Taylor and Francis Group, Boca Raton, FL. ISBN-978-1-4665-1333-4 (Hardback)
2. **Capareda, S. C. 2019**. Introduction to Renewable Energy Conversions. CRC Press, Taylor and Francis Group, Boca Raton, FL. In Press.