

Curriculum Vita - Dr. Sandun Fernando

Contact Details:

Professional Address	Home Address
Room 303C Scoates Hall Department of Biological and Agricultural Engineering Texas A&M University 2117 TAMU College Station, TX 77843-2117 Phone: 979 845 9793 Fax: 979 845 3932 Email: sfernando@tamu.edu	4410 Longthorpe Court College Station, TX 77845

Education:

Degree	Major/Department/GPA	Institution	Year
PhD	Major: Agricultural and Biological Systems Engineering At Department of Biological Systems Engineering Dissertation - Development of a Biofuel Blend Using Soybean Methyl Ester as the Amphiphile in an Ethanol-Biodiesel-Diesel Microemulsion: EB-Diesel Advisor - Dr. Milford A. Hanna Minor: Industrial and Management Systems Engineering Overall GPA - 4.0/4.0	University of Nebraska - Lincoln (UNL)	08/2003
MS	Major: Agricultural and Biological Engineering At Dept. of Biological Systems Engineering Overall GPA - 4.0/4.0	University of Nebraska - Lincoln	05/2001
BSc (Sp. Honors)	Agricultural Engineering (Major) At Dept. of Agricultural Engineering	University of Peradeniya - Sri Lanka	12/1995

- Certificate Course in Industrial Applications of Renewable Agricultural Materials. University of BOKU, Vienna, Austria. February 2003 (5 credit hours).
- Certification as an Engineer Intern (EIT) in the Nebraska Board of Engineers and Architects (2002 to present).

Professional Experience

Position/s Held	Dates
<ul style="list-style-type: none"> • Assistant Professor, Department of Biological Engineering and Agricultural Engineering (BAEN) at Texas A&M University (TAMU) 	May 01, 2008 to present
<ul style="list-style-type: none"> • Assistant Professor, Department of Agricultural and Biological Engineering (ABE) at Mississippi State University (MSU) <ul style="list-style-type: none"> ○ Graduate coordinator ○ Appointed as Level 1 Graduate Faculty ○ Appointed as Chemicals Thrust Leader, Sustainable Energy Research Center Duties include coordination of research activities of 11 PIs among six departments (Chemical Engineering, Mechanical Engineering, Physics, Biology, Biochemistry, and Biological Engineering) with a budget of > \$1 million / annum. 	October 01, 2003 to April 2008 August 2006 to April 2008 September 2005 to present July 2006 to April 2008
<ul style="list-style-type: none"> • Adjunct Assistant Professor, Department of Biological Systems Engineering University of Nebraska-Lincoln Duties include collaboration on development of industrial applications from agricultural commodities 	January 2004 to present
<ul style="list-style-type: none"> • Graduate Research Assistant Duties included development of industrial applications from agricultural commodities 	March 1998-October 2003
<ul style="list-style-type: none"> • Assistant Lecturer, Department of Agricultural Engineering, University of Peradeniya, Sri-Lanka Duties included teaching and research in Principles of Engineering, Bio-process Engineering, Environmental Engineering and Agricultural Machinery 	March 1998 – May, 1999
<ul style="list-style-type: none"> • Factory Administration Manager, Unilever Ceylon Ltd. Team leader of the plant's junior management team. Oversaw the overall administration of a multimillion-dollar food processing facility including factory personnel management and administration of finances. 	October 1996-February 1998

Honors and Awards

- Most Outstanding Research Publication of the Year (2006). Publication: **Fernando S.**, Karra, P, R. Hernandez and S. Jha. 2007. **Effect of Incomplete Conversion of Soybean Oil into Methyl Esters on Biodiesel Quality.** Journal: Energy. Awarded by the Mississippi Agricultural and Forestry Experiment Station.
- Service Recognition, National Society of Black Engineers (Mississippi State University Chapter)(2008)
- First place in the poster competition held by the Southern Bioproducts Conference in Jackson, MS titled “Soybean Based Fourstroke Engine Crankcase Lubricants” (2005) Authors P. Karra and S. Fernando.
- Bill and Rita Stout Outstanding International Graduate Student of the Year (2003) at UNL
- Frank and Marie Wheeler Distinguished Graduate Fellowship from College of Graduate Studies at UNL (2003/2004).
- Recognition as a Future Leader in Agricultural Engineering by the CIGR World Congress held in Chicago, August 2002.
- Widaman Distinguished Graduate Assistant of the Year Award (2002/03) at UNL, award presented only once in a person’s career.
- Winner (first place) of the inventors competition held by the NE Soybean Board for Innovative uses of soybean (2002).
- Franklin and Orinda Johnson Distinguished Fellowship awarded by UNL (2002/03).
- John and Lousie A Skala distinguished Fellowship awarded by UNL (2001/02, 2002/03).
- Milton E Mhor Fellowship awarded by UNL (2002/03, 2001/02, 2000/01).
- Best undergraduate student in Agricultural Engineering awarded by Department of Agricultural Engineering, University of Peradeniya, Sri Lanka (1996)
- Parrots Trophy for the best research project in Agricultural Engineering, Awarded by the Department of Agricultural Engineering, University of Peradeniya, Sri Lanka (1996)

Noteworthy Accomplishments:

- Scholarship – Professional Education Institute, Massachusetts Institute of Technology (MIT) to attend the Nanomaterials for Biological and Pharmaceutical Technologies Summer Program (2009).
- Peer reviewed publications cited over 130 times since 2005.
- Nominee for the National Academy of Engineering’s (NAE) 2007 U.S. Frontiers of Engineering Symposium.
- The article “Haryanto, Agus; **Fernando, Sandun**; Murali, Naveen; Adhikari, Sushil. 2005. **Current Status of Hydrogen Production Techniques by Steam Reforming of Ethanol: A Review.** Energy & Fuels. American Chemical Society. 19(5), 2098-2106” was the fifth among Top 20 Most Cited articles for the journal within the Last 3 Years (published across all volumes). This was also among the most accessed articles in the journal published by American Chemical Society in 2005 and 2006 with 63 citations to date.
- The article “Adhikari, S. and **Fernando, S.** 2006. **Hydrogen Membrane Separation Techniques.** Industrial & Engineering Chemistry Research 2006, 45(3), 875-881” was among the most accessed articles in the journal published by the American Chemical Society in 2006.
- The article “Fernando, S., Hall, C., and S. Jha. 2006. **NOx Reduction from Biodiesel Fuels.** Energy & Fuels, 20(1), 376-382” was among the most accessed articles in the journal published by American Chemical Society in 2006.
- The article “**Fernando, S.**, Adhikari, S., Chandrapal, C., and N. Murali. 2006. Biorefineries: Current Status, Challenges, and Future Direction. Energy & Fuels (2006), 20(4), 1727-1737.” was among the most accessed articles published by the journal in 2006.

RESEARCH SCHOLARSHIP

Research Interests:

- Research in Nanoscale Biological Engineering with an emphasis on Nanocatalysts and Bioenergy
 - Bio-inorganic Interfacial Catalysis
 - Photobioinorganic catalysts for hydrogen generation
 - Enzymatic fuel cells for MEMS applications
 - Inorganic Catalysts
 - Green Fuels: Catalytic deoxygenation of biomass derived oxygenates
 - Hydrogen: Catalytic production of hydrogen from renewable feedstock
 - Biodiesel: Catalytic production of biodiesel from biorenewable feedstock

Peer Reviewed Publications:

(* indicates MS, Ph.D., Post Doc, or Research Scientist supervised by Dr. Fernando.

Note: the term "accepted" or "in press" reflects that the manuscript has been accepted by the editor for publication or is in production and scheduled for publication respectively)

1. Haryanto, A., **Fernando, S.**, To, S. D. F., Steele, P.H., Pordesimo, L., and S. Adhikari, Hydrogen Production through Water Gas Shift Reaction: Thermodynamic Equilibrium vs. Experimental Results over Supported Ni Catalysts. Energy and Fuels. Accepted.
2. Haryanto* A., Pordesimo, L., **Fernando S.** and S. Adhikari. 2009. Upgrading of Syngas Derived from Biomass Gasification: A Thermodynamic Analysis. Biomass and Bioenergy. XXX. 2009. 1-8. <http://dx.doi.org/10.1016/j.biombioe.2009.01.010>
3. Adhikari* S., **Fernando, S.** and A Haryanto*. Reactor Modeling of Hydrogen Production from Glycerol via Steam Reforming Process over Ni/CeO₂ Catalysts. Chemical Engineering and Technology. Wiley-VCH Verlag GmbH & Co. KGaA. Accepted.
4. Jha* S., **Fernando, S.**, Columbus, E. and H. Wilcutt. Effect of Ethanol and Biodiesel Fuel Blends on NOx Emissions Behavior in Three Compression Ignition Engines. Applied Eng. in Agriculture. Accepted.
5. Liu*, S., Musuku*, S.R., Adhikari*, S., and **S. Fernando**. Adsorption of Glycerol from Biodiesel Washwaters. Environmental Technology. Accepted.
6. Gunawardene*, A., **Fernando, S.** and F. To. 2008. Performance of a Yeast-mediated Biological Fuel Cell. International Journal of Molecular Sciences. Vol. 9. Issue 10. Pages 1893-1907.
7. Singh*, A., and **S. Fernando**. 2008. Transesterification of Soybean Oil Using Heterogeneous Catalysts. Energy & Fuels, 22(3), 2067-2069.
8. Jha*, S., **Fernando, S.** and F. To. 2008. Flame temperature analysis of biodiesel blends and components. Fuel (2008), 87(10-11), 1982-1988.
9. Adhikari*, S., **Fernando, S.**, and A. Haryanto*. 2008. Hydrogen production from glycerin by steam reforming over Nickel catalysts. Renewable Energy. 33 (2008) 1097–1100
10. Adhikari*, S., **Fernando, S.**, To, F., Bricka, R., Steele, P., and A. Haryanto*. 2008. Conversion of Glycerol to Hydrogen via a Steam Reforming Process over Nickel Catalysts. Energy & Fuels, 22(2), 1220-1226.
11. Singh*, A.K. and **Fernando, S.** 2007. Reaction Kinetics of Soybean Oil Transesterification Using Heterogeneous Metal Oxide Catalysts. Chemical Engineering and Technology. Wiley-VCH Verlag GmbH & Co. KGaA. Volume 30, Issue 12, Date: December, 2007, Pages: 1716-1720.
12. Ye*, X., **Fernando, S.**, Wilson, W., and A. Singh*. 2007. Application of Amphiphilic Catalysts, Ultrasonication, and Nanoemulsions for Biodiesel Production Process. Chemical Engineering and Technology. Wiley-VCH Verlag GmbH & Co. KGaA. Volume 30, Issue 11, Pages 1481 - 1487.

13. Adhikari*, S., **Fernando, S.**, and A. Haryanto*. 2007. Thermodynamic and Experimental Analysis on Hydrogen Production by Steam Reforming of Glycerin. *Energy and Fuels*. 21(4); 2306-2310
14. Adhikari*, S., **Fernando, S.**, and A. Haryanto*. 2007. A thermodynamic analysis of hydrogen production by steam reforming of glycerol. *International Journal of Hydrogen Energy* (2007), 32(14), 2875-2880. <http://dx.doi.org> Digital Object Identifier: doi:10.1016/j.ijhydene.2007.03.023
15. Adhikari*, S., **Fernando, S.**, Kota, K. and R. Bandi. 2007. **Glycerol based automotive fuels from future biorefineries.** *Fuel* (2007), 86(17-18), 2806-2809. <http://dx.doi.org/> Digital Object Identifier: doi:10.1016/j.fuel.2007.03.030 .
16. Adhikari*, S., **Fernando, S.**, and A. Haryanto*. 2007. Production of Hydrogen by Steam Reforming of Glycerin over Alumina Supported Metal Catalysts. *Catalysis Today*. Vol 129/3-4 pp 355-364
17. Haryanto*. A, **Fernando, S.** and S. Adhikari*. 2007. Ultrahigh Temperature Water Gas Shift Catalysts to Increase Hydrogen Yield from Biomass Gasification. *Catalysis Today*. Vol 129/3-4 pp 269-274.
18. **Fernando, S.** and M. Hanna. 2007. Lubricity Characteristics of Selected Vegetable Oils, Animal Fats and Their Derivatives. *Applied Engineering in Agriculture*. 23(1): 5-11.
19. Adhikari*, S., **Fernando, S.**, and A. Haryanto*. 2007. Glycerin Steam Reforming for Hydrogen Production. *Transactions of ASAE*. 50 (2). 591-595.
20. **Fernando, S.**, Karra*, P; Hernandez, R., and S.K. Jha*. 2007. Effect of incompletely converted soybean oil on biodiesel quality. *Energy (Oxford, United Kingdom)*, 32(5), 844-851.
21. Singh*, A.K., **Fernando, S.D.**, Hernandez, R. 2007. Base-Catalyzed Fast Transesterification of Soybean Oil Using Ultrasonication. *Energy & Fuels*, 21(2), 1161-1164.
22. **Fernando, S.**, Hall*, C., and S. Jha*. 2006. NOx Reduction from Biodiesel Fuels. *Energy & Fuels* (2006), 20(1), 376-382. **This publication was among the 20 most accessed articles published by the journal in 2006; number 2, 4, 6th and 12th most accessed journal article in the 1st, 2nd, 3rd and 4th quarters of 2006 in the journal respectively and the 6th most accessed article during the year 2006.**
23. **Fernando, S.**, Adhikari*, S., Chandrapal*, C., and N. Murali*. 2006. Biorefineries: Current Status, Challenges, and Future Direction. *Energy & Fuels* (2006), 20(4), 1727-1737. **This publication was among the 20 most accessed articles published by the journal in 2006; number 1 and 16th most accessed journal article in Renewable Category in the 3rd and 4th quarters of 2006 in the journal respectively and the 11th most accessed article during the year 2006. During the 1st quarter of 2007 it is still in the top 20 list being number 16**
24. Adhikari*, S.; **Fernando, S.**, and M. Novotny, M. 2006. Nanoparticles production from glycerin via electrospray and size measurement techniques. *Transactions of the ASABE*, 49(4), 1269-1272.
25. Adhikari*, S. and **S. Fernando**, 2006. Hydrogen Membrane Separation Techniques. *Industrial & Engineering Chemistry Research* (2006), 45(3), 875-881. **This publication was among the top 20 most accessed articles published by the journal in 2006; 1st, 2nd and 4th most accessed journal article in Hydrogen Category in the 1st, 2nd and 3rd quarters of 2006 respectively in the journal and the 6th most accessed article during the year 2006.**
26. Haryanto*, A., **Fernando, S.**, N. Murali*, and S. Adhikari*. 2005. Current Status of Hydrogen Production Techniques by Steam Reforming of Ethanol: A Review. *Energy & Fuels* (2005), 19(5), 2098-2106. **This publication was among the top 20 most accessed articles published by the journal in 2005, 2006 and 2007; number 1 most accessed article in the 1st-3rd quarter of 2006 and 4th quarter of 2005 in the journal; the sixth most accessed article during the year 2005 and the fourth most accessed article in the year 2006. (16 citations to date)**
27. **Fernando, S.**; Hanna, M. Phase behavior of the ethanol-biodiesel-diesel micro-emulsion system. *Transactions of the ASAE* (2005), 48(3), 903-908.

28. **Fernando, S.**, Bhushan, S. and M. Naveen*. 2005. Agricultural Engineering Education in Developing Countries. Special Issue of International Journal of Engineering Education. Dublin Institute of Technology. Dublin, Ireland. 22 (1)
29. **Fernando, S.** and M. Hanna. 2005. Design and Development of a Threshing Chamber and Pneumatic Conveying and Cleaning Units for Soybean Harvesting. Transactions of ASAE. 48(5): 1681–1688
30. **Fernando, S.** and M. Hanna. 2004. *Soybean Threshing Mechanism Development and Testing*. Transactions of ASAE. 47 (3): 599-605.
31. **Fernando, S.** and M. Hanna. 2004. Development of a Novel Biofuel Blend Using Ethanol-Biodiesel- Diesel Microemulsions: EB-Diesel. Energy and Fuels. American Chemical Society. 18 (6): 1695-1703 NOV-DEC 2004.
32. **Fernando, S.** and M. Hanna. **2003**. Oxidation Characteristics of Soybean Oils as Water Pump Lubricants. Transactions of ASAE. American Society of Agricultural Engineers. St. Joseph, MI. 45(6): 1715-1719.
33. **Fernando, S.** and M. Hanna. 2001. Comparison of Viscosity Characteristics of Soybean Oils with a Mineral Oil Two-stroke Engine Lubricant. Transactions of the ASAE. American Society of Agricultural Engineers. St. Joseph, MI. 44(6): 1403-1407

Conference Papers, Proceedings and Abstracts:

1. Pordesimo, L. O., S. Capareda, S. Sokhansanj, and S. Fernando. 2008. Enhancement and stabilization of biomass feedstock quality through utilization/recycling biological waste streams. Paper No. 159. Presented at the 236th ACS National Meeting & Exposition, August 17-21, 2008, Philadelphia, Penn. (INVITED)
2. Haryanto*, Agus; Fernando, Sandun; To, Filip S. D.; Steele, Philip; Pordesimo, Lester; Adhikari, Sushil. 2008. Producing Hydrogen through Water Gas Shift Reaction over Ni Catalysts. Poster Number 28. Paper No. 083978. ASABE Annual International Meeting, Providence, Rhode Island.
3. Haryanto*, Agus; Fernando, Sandun; Adhikari, Sushil. 2008. Thermodynamic Analysis of Increasing Hydrogen Yield of Syngas Produced from Biomass Gasification. Poster Number 63. Paper No. 083975. ASABE Annual International Meeting, Providence, Rhode Island.
4. Adhikari*, Sushil; Fernando, Sandun; Haryanto*, Agus. Hydrogen production of crude glycerin from biodiesel plant via steam reforming process. Abstracts of Papers, 235th ACS National Meeting, New Orleans, LA, United States, April 6-10, 2008 (2008),
5. Adhikari*, Sushil; Fernando, Sandun; Haryanto*, Agus. Hydrogen production of crude glycerin from biodiesel plant via steam reforming process. Abstracts of Papers, 235th ACS National Meeting, New Orleans, LA, United States, April 6-10, 2008 (2008), PETR-067.
6. Adhikari*, Sushil; Fernando, Sandun; Haryanto*, Agus. Steam reforming of glycerin for hydrogen production over Ni catalyst. Abstracts of Papers, 233rd ACS National Meeting, Chicago, IL, United States, March 25-29, 2007 (2007), FUEL-076.
7. Adhikari*, Sushil; Fernando, Sandun D.; Haryanto*, Agus. Steam reforming of glycerin for hydrogen production over Ni catalyst. Preprints of Symposia - American Chemical Society, Division of Fuel Chemistry (2007), 52(1), 180-181.
8. Ye*, X and S. Fernando. Tuning Catalyst and Process for Biodiesel Production by Means of Emulsion and Ultrasonic Pretreatment. Session #654 - Catalytic Processing of Fossil Fuels and Biofuels (20020). Proceedings of AIChE Annual Meeting. Salt Lake City, UT. Abstract # 654b.
9. Adhikari*, S., Fernando, S., and A. Haryanto*. 2007. Hydrogen Production from Renewable Alcohols over Pt and Ni Catalysts. ASABE Annual International Meeting, Minneapolis, MN. June 17-20. Paper # 076001.
10. Singh*, A. and S. Fernando. 2007. Determination of Yield and Reaction Kinetics of Transesterification of Soybean oil using Solid Catalysts. ASABE Annual International Meeting, Minneapolis, MN. June 17-20. Paper # 076237.

11. Jha*, S. K. and S. Fernando. 2007. Flame Temperature Analysis of Biodiesel Blends and Components. ASABE Annual International Meeting, Minneapolis, MN. June 17-20. Paper # 076234.
12. Haryanto*, A., Fernando, S. and S. Adhikari*. 2007. Product Composition of Glycerin Gasification under Sub and Supercritical Water Treatment. ASABE Annual International Meeting, Minneapolis, MN. June 17-20. Paper # 077215.
13. Gunawardena*, A. and S. Fernando. 2007. Electricity Generation from Yeast Cells - A new Paradigm for Future Biorenewable Energy Generation. ASABE Annual International Meeting, Minneapolis, MN. June 17-20. Paper # 078024.
14. Adhikari*, S., Fernando, S. and A. Haryanto*. Steam reforming of glycerin for hydrogen production over Ni catalyst. Abstracts of Papers, 233rd ACS National Meeting, Chicago, IL, United States, March 25-29, 2007 (2007), FUEL-076.
15. Adhikari*, S., Fernando, S. and A. Haryanto*. Steam reforming of glycerin for hydrogen production over Ni catalyst. Preprints of Symposia - American Chemical Society, Division of Fuel Chemistry (2007), 52(1), 180-181.
16. Adhikari*, S., Fernando, S., Gwaltney, S.R. and A. Haryanto*. A thermodynamic analysis of hydrogen production by steam reforming of glycerol. Abstracts of Papers, 232nd ACS National Meeting, San Francisco, CA, United States, Sept. 10-14, 2006 (2006), FUEL-154.
17. Adhikari*, S., Fernando, S., Gwaltney, S.R. and A. Haryanto*. A thermodynamic analysis of hydrogen production by steam reforming of glycerol. Preprints of Symposia - American Chemical Society, Division of Fuel Chemistry (2006), 51(2), 621-622.
18. Adhikari*, S., Fernando, S. and A. Haryanto*. Sugar steam reforming for hydrogen production. Abstracts of Papers, 232nd ACS National Meeting, San Francisco, CA, United States, Sept. 10-14, 2006 (2006), FUEL-123.
19. Fernando, S.D. and A. Haryanto*. Producing sustainable hydrogen from biomass gasification coupled with water gas shift catalysis. Abstracts of Papers, 231st ACS National Meeting, Atlanta, GA, United States, March 26-30, 2006 (2006), PETR-019.
20. Fernando, S. and S. Adhikari*. Glycerin steam reforming for hydrogen production. Abstracts of Papers, 231st ACS National Meeting, Atlanta, GA, United States, March 26-30, 2006 (2006), PETR-004.
21. Adhikari*, S. and S. Fernando. 2006. "Nanoparticle production from glycerin via electrospray and size measurement". July 10, 2006. Annual International Meeting ASABE, Portland OR, July 9-12. Paper number 066073.
22. Jha*, S.K. and S. Fernando. 2006. "Analysis of Diesel Engine Exhaust Fueled with Blends of Biodiesel and Ethanol". July 11, 2006. Annual International Meeting ASABE, Portland OR, July 9-12. Paper number 066138.
23. Haryanto*, A. and S. Fernando. "Producing Sustainable Hydrogen from Biomass Gasification Coupled with Water Gas Shift Catalysts. July 11, 2006. Annual International Meeting ASABE, Portland OR, July 9-12. Paper number 066226.
24. Adhikari*, S. and S. Fernando. 2006. "Glycerin Steam Reforming for Hydrogen Production". July 10, 2006. Annual International Meeting ASABE, Portland OR, July 9-12. Paper number 066222.
25. Singh*, A. and S. Fernando. 2006. Base Catalyzed Transesterification of Soybean Oil Using Ultrasonication". July 11, 2006. Annual International Meeting ASABE, Portland OR, July 9-12. Paper number 066220.
26. Fernando S., Karra*, P and S. Jha*. 2005. Effect of Incomplete Conversion of Soybean Oil into Methyl Esters on Biodiesel Quality. AIChE annual international meeting, Cincinnati, OH.
27. Fernando, S., Bhushan, S. and M. Naveen*. 2005. Agricultural Engineering Education in Developing Countries. Abstracts of Papers and Proceedings of the Annual conference of the ASEE, Portland, Oregon. June, 2005

28. Haryanto*, A., Fernando, S., Murali* N. and S. Adhikari*, 2005. Current Status of Hydrogen Production Techniques by Steam Reforming of Ethanol. *International conference on Energy, Environment and Disaster*, July 24-30, Charlotte, North Carolina, USA.
29. Fernando, S. and M. Hanna. Soybean Threshing Mechanism Development and Testing. ASAE Annual International Meeting / CIGR world Congress. Chicago, IL. USA. (2002).
30. Fernando, S. and M. Hanna. Performance of Soybean Based Lubricant in Two Stroke Engines, ASAE Annual International Meeting, Las Vegas, NV (2003)
31. Karra*, P. and S. Fernando. Soybean Based Four-stroke Engine Crankcase Lubricants. Annual International Meeting of the ASABE. Tampa, FL. (2005).
32. Adhikari*, S. and S. Fernando, 2005. Hydrogen Separation from Synthesis Gas. *Annual International Meeting. American Society of Agricultural and Biological Engineers*, July 17-20, Tampa, Florida, USA.
33. Basnayake, BFA. And S. Fernando. 1998. *Testing and Evaluation of Paddy Husk Furnace for Tobacco Barns*. Proceedings of 54th annual sessions SLAAS. Colombo. Sri Lanka.
34. Basnayake, B.F.A. And S. Fernando. 1998. *Design and Development of a Vertical Composition Bioreactor for Urban Solid Waste Management*. Proceedings of 54th annual sessions SLAAS. Colombo. Sri Lanka.
35. Basnayake, B.F.A. And S. Fernando. 1998. *Solar Radiation Assisted Aeration System for Making Compost from Urban Solid Wastes*. Proceedings of 54th annual sessions SLAAS. Colombo. Sri Lanka.

Conference Presentations:

1. Haryanto*, Agus; Fernando, Sandun; To, Filip S. D.; Steele, Philip; Pordesimo, Lester; Adhikari, Sushil. 2008. Producing Hydrogen through Water Gas Shift Reaction over Ni Catalysts. Poster Number 28. Paper No. 083978. ASABE Annual International Meeting, Providence, Rhode Island.
2. Singh*, Alok; Sandun Fernando. 2008. Transesterification of Soybean oil Using Heterogeneous Catalysts. Poster Number 55. Paper No. 084383. ASABE Annual International Meeting, Providence, Rhode Island.
3. Haryanto*, Agus; Fernando, Sandun; Adhikari, Sushil. 2008. Thermodynamic Analysis of Increasing Hydrogen Yield of Syngas Produced from Biomass Gasification. Poster Number 63. Paper No. 083975. ASABE Annual International Meeting, Providence, Rhode Island.
4. Adhikari, Sushil; Fernando, Sandun; Haryanto, Agus. Hydrogen production of crude glycerin from biodiesel plant via steam reforming process. Abstracts of Papers, 235th ACS National Meeting, New Orleans, LA, United States, April 6-10, 2008 (2008),
5. Xuejun Ye, Sandun D. Fernando. Tuning Catalyst and Process for Biodiesel Production by Means of Emulsion and Ultrasonic Pretreatment. 2007 Annual Meeting of AIChE. Catalysis and Reaction Engineering Division (20), #654 - Catalytic Processing Of Fossil Fuels and Biofuels (20020). Abstract # 654b. November 4 -9, 2007. Salt Palace Convention Center. Salt Lake City, Utah.
6. Adhikari*, S., Fernando, S., and A. Haryanto*. 2007. Hydrogen Production from Renewable Alcohols over Pt and Ni Catalysts. ASABE Annual International Meeting, Minneapolis, MN. June 17-20. Paper # 076001.
7. Singh*, A. and S. Fernando. 2007. Determination of Yield and Reaction Kinetics of Transesterification of Soybean oil using Solid Catalysts. ASABE Annual International Meeting, Minneapolis, MN. June 17-20. Paper # 076237.
8. Jha*, S.K and S. Fernando. 2007. Flame Temperature Analysis of Biodiesel Blends and Components. ASABE Annual International Meeting, Minneapolis, MN. June 17-20. Paper # 076234.

9. Haryanto*, A., Fernando, S. and S. Adhikari*. 2007. Product Composition of Glycerin Gasification under Sub and Supercritical Water Treatment. ASABE Annual International Meeting, Minneapolis, MN. June 17-20. Paper # 077215.
10. Gunawardana*, A. and S. Fernando. 2007. Electricity Generation from Yeast Cells - A new Paradigm for Future Biorenewable Energy Generation. ASABE Annual International Meeting, Minneapolis, MN. June 17-20. Paper # 078024.
11. Adhikari*, S., Fernando, S. and Agus Haryanto*, 2007. Steam reforming of glycerin for hydrogen production over Ni catalyst. *Division of Fuel Chemistry. American Chemical Society Meeting*, March 25-29, 2007, Chicago, IL at McCormick Place
12. Adhikari*, S., Fernando, S. and A. Haryanto*, 2007. Production of hydrogen by steam reforming of glycerin over alumina supported metal catalysts. *Institute of Biological Engineering Annual Meeting*, March 30-April 1, 2007, St. Louis, MO at Crowne Plaza.
13. Singh*, A and S. Fernando. 2007. Base Catalyzed Transesterification of Soybean Oil Using Solid Catalysts. *Institute of Biological Engineering Annual Meeting*, March 30-April 1, 2007, St. Louis, MO at Crowne Plaza.
14. Gunawardane*, A., Fernando, S and F. To., 2007. *Institute of Biological Engineering Annual Meeting*, March 30-April 1, 2007, St. Louis, MO at Crowne Plaza.
15. Jha*, S.K., Fernando, S., Columbus, E. and T. Li. 2007. Development of an Oxidatively and Thermally Stable Soybean Oil (for lubricant applications). *Institute of Biological Engineering Annual Meeting*, March 30-April 1, 2007, St. Louis, MO at Crowne Plaza.
16. Haryanto*, A and S. Fernando. 2007. Valuable Products from Glycerin Gasification under Sub- and Supercritical Water Treatment. *Institute of Biological Engineering Annual Meeting*, March 30-April 1, 2007, St. Louis, MO at Crowne Plaza.
17. Adhikari*, S., Fernando, S. and A. Haryanto*. Sugar steam reforming for hydrogen production. Abstracts of Papers, 232nd ACS National Meeting, San Francisco, CA, United States, Sept. 10-14, 2006 (2006), FUEL-123.
18. Adhikari*, S., Fernando, S., Gwaltney, S.R. and A. Haryanto*. A thermodynamic analysis of hydrogen production by steam reforming of glycerol. 232nd ACS National Meeting, San Francisco, CA, United States, Sept. 10-14, 2006 (2006), FUEL-154.
19. Adhikari*, S. and S. Fernando. 2006. "Nanoparticle production from glycerin via electrospray and size measurement". July 10, 2006. Annual International Meeting ASABE, Portland OR, July 9-12. Paper number 066073.
20. Jha*, S.K. and S. Fernando. 2006. "Analysis of Diesel Engine Exhaust Fueled with Blends of Biodiesel and Ethanol". July 11, 2006. Annual International Meeting ASABE, Portland OR, July 9-12. Paper number 066138.
21. Haryanto*, A. and S. Fernando. "Producing Sustainable Hydrogen from Biomass Gasification Coupled with Water Gas Shift Catalysts. July 11, 2006. Annual International Meeting ASABE, Portland OR, July 9-12. Paper number 066226.
22. Adhikari*, S. and S. Fernando. 2006. "Glycerin Steam Reforming for Hydrogen Production". July 10, 2006. Annual International Meeting ASABE, Portland OR, July 9-12. Paper number 066222.
23. Singh*, A. and S. Fernando. 2006. Base Catalyzed Transesterification of Soybean Oil Using Ultrasonication". July 11, 2006. Annual International Meeting ASABE, Portland OR, July 9-12. Paper number 066220.
24. Fernando, S. and A. Haryanto*. 2006. "Producing sustainable hydrogen from biomass gasification coupled with water gas shift catalysis", paper presentation at the 231st ACS National Meeting, Atlanta, GA, March 26-30, 2006. DIVISION: Division of Petroleum Chemistry. SESSION: 1st International Symposium on Hydrogen from Renewable Sources and Refinery Applications Oral Presentation. Sunday, 26 March 2006 from 5:10 PM to 5:30 PM
25. Fernando, S. and S. Adhikari*. 2006. "Glycerin steam reforming for hydrogen production", paper presentation at the 231st ACS National Meeting, Atlanta, GA, March 26-30, 2006. DIVISION:

Division of Petroleum Chemistry. SESSION: 1st International Symposium on Hydrogen from Renewable Sources and Refinery Applications. Oral Presentation. Sunday, 26 March 2006 from 9:35 AM to 9:55 AM

26. Fernando, S. and S. Adhikari*, 2006. Glycerin based Automotive Fuel for Sustainable Transportation. *Institute of Biological Engineering Meeting*, March 10-12, Tucson, Arizona.
27. Adhikari*, S. and S. Fernando, 2005. Hydrogen Separation from Synthesis Gas. *Annual International Meeting. American Society of Agricultural and Biological Engineers*, July 17-20, Tampa, Florida, USA.
28. Haryanto*, A., Fernando, S., Murali*, N. and S. Adhikari*, 2005. Current Status of Hydrogen Production Techniques by Steam Reforming of Ethanol. *International conference on Energy, Environment and Disaster*, July 24-30, Charlotte, North Carolina, USA.
29. Fernando S., Karra*, P and S. Jha*. 2005. Effect of Incomplete Conversion of Soybean Oil into Methyl Esters on Biodiesel Quality. AICHE annual international meeting, Cincinnati, OH.
30. Karra*, P. and S. Fernando. Soybean Based Four-stroke Engine Crankcase Lubricants. Annual International Meeting of the ASABE. Tampa, FL. (2005).
31. Fernando, S. and M. Hanna. Soybean Based Four-stroke Engine Crankcase Lubricants. Southern Bioproducts Conference in Jackson, MS (2005) Authors P. Karra and S. Fernando.
32. Fernando, S. and M. Hanna. Biodiesel as an Amphiphile in E-diesel and Phase Behavior of Ethanol-Biodiesel-Diesel Microemulsion System, Sustainable Energy Conference. Biloxi, MS (2004).
33. Fernando, S. and M. Hanna. Performance of Soybean Based Lubricant in Two Stroke Engines, ASAE Annual International Meeting, Las Vegas, NV (2003)
34. Fernando, S. and M. Hanna. Biodiesel as an Amphiphile in E-diesel and Phase Behavior of Ethanol-Biodiesel-Diesel Microemulsion System, ASAE Annual International Meeting, Las Vegas, NV (2003)
35. Fernando, S. and M. Hanna. Soybean Threshing Mechanism Development and Testing. ASAE Annual International Meeting / CIGR world Congress. Chicago, IL. USA. (2002).
36. Fernando, S. and M. Hanna. Soybean Oil as an Alternative Two-cycle Engine Lubricant. ASAE mid-central Meeting, MI. USA. (2001).
37. Fernando, S. and M. Hanna. Design and Development of a Vertical Composition Bioreactor for Urban Solid Waste Management. Proceedings of 54th annual sessions SLAAS. Colombo (1998).
38. Basnayake, B.F.A. And S. Fernando. Solar Radiation Assisted Aeration System for Making Compost from Urban Solid Wastes. SLAAS (1998).
39. Basnayake, B.F.A. And S. Fernando. Testing and Evaluation of Paddy Husk Furnace for Tobacco Barns. SLAAS (1998).

Invited Presentations

1. Pordesimo, L. O., S. Capareda, S. Sokhansanj, and S. Fernando. 2008. Enhancement and stabilization of biomass feedstock quality through utilization/recycling biological waste streams. Paper No. 159. Presented at the 236th ACS National Meeting & Exposition, August 17-21, 2008, Philadelphia, Penn. (INVITED)
2. Current Status and Future Directions of Bioenergy Research. Invited Speaker. Louisiana Tech University/Grambling State University. March 2004.(INVITED)

Conference Session Chairing

1. Biodiesel Development Research. Moderator FPE 25; FPE-709. June 2008. **ASABE Annual International Meeting**, Providence, Rhode Island.
2. Session Chair (Invited). Biology-inspired bioprocessing, biocatalysis, biofuels. **2006 Institute of Biological Engineering Meeting**, March 10-12, 2006. Tucson, AZ
3. Session Chair (Invited). Ethanol and Biofuels Session. **2007 Annual Meeting of ASABE**. Minneapolis, Minnesota.

Grants Funded:

- Proposals submitted and total dollar amount (Fernando's Share): 40; \$7,914,927
- Number of Proposals Funded: 16; Total amount (Dr. Fernando's Share): \$ 2,083,620

Grants Funded in 2008

Federal – Competitive

1	Source:	National Science Foundation
	Title of Project:	Heterogeneous Emulsion Catalysis: Transesterification using Amphiphilic Catalysts in Nanoemulsion Environments
	Role:	PI
	Other Investigators:	None
	Amount:	\$323,624
	Fernando's Responsibility	\$323,624
	Dates:	8/15/2008-7/31/2011
2	Source:	National Science Foundation
	Title of Project:	SGER: Catalytic Reforming of Electrically Charged Glycerin Nano-droplets to Produce Hydrogen
	Role:	PI
	Other Investigators:	None
	Amount:	\$44,682
	Fernando's Responsibility	\$44,682
	Dates:	8/15/2008-10/15/08
3	Source:	USDA – National Needs Fellowships
	Title of Project:	Preparing Underrepresented Scholars for Challenges in Agriculture Bioenergy and Sustainability - a Research and Leadership PhD Program
	Role:	Co-PI
	Other Investigators:	Capareda, S. (PI); Munster, C.; Vietor, D.; Provin, T.; Pina, M.
	Amount:	\$234,000
	Fernando's Responsibility	\$78,000
	Dates:	09/01/2008 – 08/13/2013

Internal - Competitive:

4	Source:	Agrilife Research (TAMU) - PUF
	Title of Project:	Request for Research Equipment Mobile Fluidized-bed Pyrolysis System
	Role:	Co-PI
	Other Investigators:	S. Capareda, C. Munster, D. Vietor, T. Provin, and Y. Deng
	Amount:	\$70,000
	Dates:	11/05/2008-05/01/2009

Internal Non-competitive

5	Source:	Aglife Research (TAMU) – Bioenergy Exceptional Items Fund
	Title of Project	Acquiring of a High Pressure Homogenizer to Develop an Oil Extraction Technique from High Moisture Algal Biomass
	Role:	PI
	Other Investigators:	None
	Amount:	\$25,000
	Fernando's Responsibility	\$25,000
	Dates:	09/01/2008-08/31/2009

Grants Funded Prior to 2008

6	Source:	U.S. Department of Energy - Sustainable Energy Research Center (SERC)
	Title of Project:	Sustainable Energy Research Center-Renewable Hydrogen Production from Biorefinery Co-products and Effluents
	Role:	PI
	Other Investigators:	M. Novotny, J. Singh, N. Gavini, L. Pulakat, D. Braasch, B. Cain, Y. Li
	Total Award/Fernando's Share:	\$701,344 / \$247,555
	Dates:	06/01/06 - 11/30/07
7	Source:	Mississippi Soybean Promotion Board
	Title of Project:	Oxidatively and Thermally Stable, Polymerization Resistant Industrial Lubricants from Chemically Modified Soybean Oil
	Role:	PI
	Other Investigators:	E. Columbus
	Total Award/Fernando's Share:	\$32,044 / \$28,044
	Dates:	04/01/06 - 03/31/07

8	Source:	U.S. Department of Energy
	Title of Project:	Identify and Characterize Biomass Materials, Optimize Gasification Processes, and Enrich Biofuels for Micro-CHP-systems.
	Role:	co-PI
	Other Investigators:	L. Chamra et al.
	Total Award/Fernando's Share:	Approx. \$1.5M / \$409,863
	Dates:	June 17 2005 - Sept 14 2007
9	Source:	U.S. Department of Energy
	Title of Project:	Mississippi State Biodiesel Production Project: Development and Optimization of Novel Biodiesel Production Techniques
	Role:	co-PI
	Other Investigators:	R. Hernandez et al.
	Total Award/Fernando's Share:	\$2,470,000 / \$341,621
	Dates:	Sept 01 2004 - Sept 29 2007
10	Source:	U.S. Department of Energy - SERC
	Title of Project:	Sustainable Energy Research Center - Novel Processes and Feedstocks for Producing Biodiesel
	Role:	co-PI
	Other Investigators:	R. Hernandez et al.
	Total Award/Fernando's Share:	\$1,651,742 / \$226,032
	Dates:	06/01/06 - 11/30/07
11	Source:	U.S. Department of Energy - SERC
	Title of Project:	Sustainable Energy Research Center - Biomass Utilization
	Role:	co-PI
	Other Investigators:	L. Chamra (PI), E. Columbus, B. Bachelor, F. To
	Total Award/Fernando's Share:	\$1,522,470 / \$155,975
	Dates:	06/01/06 - 11/30/07
12	Source:	Mississippi Development Authority/US Department of Energy
	Title of Project:	Development of a Bioadsorbent for the Biodiesel Industry
	Role:	Co-PI
	Other Investigators:	R. Hernandez, T. French
	Total Award/Fernando's Share:	\$220,000 / \$79,667
	Dates:	08/01/06 - 06/30/07
13	Source:	U.S. Department of Energy - SERC
	Title of Project:	Sustainable Energy Research Center - Development of Fuels and Chemical Co-Products from Bio-Oils

	Role:	co-PI
	Other Investigators:	P. Steel (PI), M. Bricka, H. Toghiani, R. Toghiani, L. Ingram, C. Pittman, E. Columbus, B. Baldwin
	Fernando's Share:	\$1,162,953/ \$66,558
	Dates:	06/01/06 - 11/30/07
14	Source:	U.S. Department of Energy - SERC
	Title of Project:	Sustainable Energy Research Center - Investigation of Technical Barriers Effecting Biobased Syngas Production, Utilization, and Conversion
	Role:	co-PI
	Other Investigators:	M. Bricka (PI), C. George, E. Columbus, F. To, R. Rogers, T. White
	Total Award/Fernando's Share:	\$652,695/ \$43,096
	Dates:	06/01/06 - 11/30/07
15	Source:	Oklahoma State University / U.S. Department of Agriculture
	Title of Project:	Biomass Based Energy Research
	Role:	co-PI
	Other Investigators:	E. Columbys et al.
	Total Award/Fernando's Share:	525,364 / \$50,180
	Dates:	July 01 2006 - June 08 2008
16	Source:	Oklahoma State University / U.S. Department of Agriculture
	Title of Project:	Biomass Based Energy Research
	Role:	co-PI
	Other Investigators:	E. Columbus et al.
	Total Award/Fernando's Share:	\$448,730 / \$55,680
	Dates:	07/01/05 - 06/30/07
17	Source:	Oklahoma State University / U.S. Department of Agriculture
	Title of Project:	Biomass Based Energy Research
	Role:	co-PI
	Other Investigators:	E. Columbus et al.
	Total Award/Fernando's Share:	Approx. \$ 450,000 / \$55,680
	Dates:	07/01/04 - 06/30/06
18	Source:	Mississippi State University - Office of Research
	Title of Project:	Research Initiate Grant
	Role:	PI
	Other Investigators:	None
	Total Award/Fernando's Share:	\$10,000 / \$10,000
	Dates:	01/01/2004 - 12/31/2004

TEACHING SECTION

- Teaching Experience/Interests
 - Taught undergraduate classes: Principles of Engineering I and II, Applied Statics, Applied Dynamics, Eng. Mathematics (all Freshman Level equivalent), Solid Waste Management (Junior Level equivalent), Adv. Solid Waste Mgt.(Senior Level equivalent) in Sri Lanka
 - Soil and Water Management, ABE 4263/6263 and Senior engineering seminar (ABE 4911 and ABE 4961) at MSU.
 - In the process of preparing a split level (undergraduate/graduate) course in Introduction to Biomass and Bioenergy

List of Courses Taught: Mississippi State University

2007 (Fall) and 2008 (Spring)

Course Number	Title	Credit Hours	Number of Students
Undergraduate			
ABE 3303	Transport Processes in Biological Engineering	3	37
ABE 4263	Soil and Water Mgt.	3	22
ABE 4263	Soil and Water Mgt. (lab)	0	22
ABE 4961	Seminar	1	17
Graduate			
ABE 8000	Research/Thesis	Variable	1
ABE 9000	Research/Dissertation	Variable	5

2006 (Fall) /2007 (Spring) and 2007 (Summer)

Course Number	Title	Credit Hours	Number of Students
Undergraduate			
ABE 4263	Soil and Water Mgt.	3	23
ABE 4263	Soil and Water Mgt. (lab)	0	23
ABE 4911	Engineering Seminar	1	6
ABE 4961	Seminar	1	10
Graduate			
ABE 6263	Soil and Water Mgt.	3	1
ABE 6263	Soil and Water Mgt. (lab)	0	1
ABE 8000	Research/Thesis	Variable	1
ABE 9000	Research/Dissertation	Variable	5

2005 (Fall)/2006 (Spring) and 2006 (Summer)

Course Number	Title	Credit Hours	Number of Students
Undergraduate			
ABE 4263	Soil and Water Mgt.	3	17
ABE 4263	Soil and Water Mgt. (lab)	0	17

ABE 4911	Engineering Seminar	1	4
ABE 4961	Seminar	1	14
ABE 4000	Directed Indiv Study	1	1
Graduate			
ABE 6263	Soil and Water Mgt.	3	5
ABE 6263	Soil and Water Mgt. (lab)	0	5
ABE 8000	Research/Thesis	Variable	1
ABE 9000	Research/Dissertation	Variable	4

2004 (Fall)/2005 (spring) and 2005 (Summer)

Course Number	Title	Credit Hours	Number of Students
Undergraduate			
ABE 4263	Soil and Water Mgt.	3	23
ABE 4263	Soil and Water Mgt. (lab)	0	23
ABE 4911	Engineering Seminar	1	23
ABE 4961	Seminar	1	26
Graduate			
ABE 6263	Soil and Water Mgt.	3	2
ABE 6263	Soil and Water Mgt. (lab)	0	2
ABE 8000	Research/Thesis	Variable	1
ABE 9000	Research/Dissertation	Variable	3
ABE 7000	Directed Ind. Study	3	1

2003 (Fall)/2004 (Spring) and 2004 (Summer)

Course Number	Title	Credit Hours	Number of Students
Undergraduate			
ABE 4263	Soil and Water Mgt.	3	19
ABE 4263	Soil and Water Mgt. (lab)	0	19
Graduate			
ABE 6263	Soil and Water Mgt.	3	1
ABE 6263	Soil and Water Mgt. (lab)	0	1
ABE 8000	Research/Thesis	Variable	1

Course Evaluations:

The following table shows the results of student evaluations of my teaching effort and, when available, mean rating for the entire department. Students are asked to provide ratings for 10 categories using the following scoring system: 1) strongly disagree, 2) disagree, 3) neither agree nor disagree, 4) agree, and 5) strongly agree. My scores consistently rank agree or higher, and are in most occasions better than departmental and college mean scores.

Course Number	Course Title	Semester	Number of Students	Dr. Fernando's Rating (out of 5)	Mean of All Instructors in ABE for the semester (out of 5)	Mean of All instructors in College for the semester (out of 5)
ABE 4263	Soil and Water Management	S 07	23	4.74	4.12	N/A
		S06	17	4.44	4.19	4.20
		S05	23	4.44	3.84	4.09
		S04	19	4.51	4.30	4.17
ABE 6263	Soil and Water Management	S 07	1	4.74*	4.12	N/A
		S06	5	4.44*	4.19	4.20
		S05	2	4.44*	3.84	4.09
		S04	1	4.51*	4.30	4.17
ABE 4263/6263	Soil and Water Management laboratory	S 07	24	4.72*	4.12	N/A
		S06	22	4.44* ^a	4.19	4.20
		S05	25	4.44* ^a	3.84	4.09
		S04	20	4.51* ^a	4.30	4.17
ABE 4961	Seminar	F06	10	4.27	N/A	N/A
		F05	14	4.38	4.13	4.11
		F04	26	4.14	4.01	4.15
ABE 4911	Engineering Seminar	F06	6	4.27 ^c	N/A	N/A
		F05	4	4.38 ^c	4.13	4.11
		F04	23	3.92	4.01	4.15

N/A - Not available

* Evaluations reported are combined graduate and undergraduate section results

^a Evaluations reflect combined lecture and laboratory component results

^c Evaluations reflect combined class averages (ABE 4961 and 4911) since these classes were merged together

SERVICE SECTION

Professional/Public Service

- **Associate Editor** – Food and Process Engineering Institute, American Society of Agricultural and Biological Engineering (Journals of Transactions of ASABE and Applied Engineering in Agriculture) (2006 to present)
- **Editorial Board Member** - Journal of Biological Engineering, Published by ASABE (2007 to present)
- **Review panel member at NSF – Chemical Biological Environmental and Transport Systems Division (CBET)** in the Directorate of Engineering (2004, 2005, 2006, 2007)
- **Review panel member at NSF – SBIR program** (2008)
- **Technical Reviewer** for the proposals submitted to Center for Plant Biotechnology Research (CPBR) Atlanta, GA 2004, 2005, 2006 and 2007 (invited) - Renewable Energy Track.
- **Review panel member at USDA-CSREES program** (2004, 2005, 2006, 2007)
- Technical Reviewer in Food and Process Engineering and, Power and Machinery divisions in the **Journal of Transactions of ASABE** (2004 to present).
- Technical Reviewer in Food and Process Engineering and, Power and Machinery divisions in the **Journal of Applied Engineering in Agriculture** (2004 to present).

- Technical Reviewer for the journal **Fuel Journal** (2006 to present).
- Technical Reviewer for the journal **Industrial and Engineering Chemistry (I&EC) Research**, American Chemical Society (ACS) (2005 to present).
- Technical Reviewer for the journal **Energy and Fuels**, American Chemical Society (ACS) (2006 - present).
- Technical Reviewer for the journal **Bioresource Technology** (2006 - present).
- Technical Reviewer for the **Canadian Journal of Chemical Engineering** (2006 - present).
- Technical Reviewer for the **International Journal of Hydrogen Energy** (2007).
- Technical Reviewer for the **Journal of American Oil Chemists Society** (2007).
- Technical Reviewer for the **AIChE Journal** (2007)

Professional Association Service

- Editorial Board Member - Food and Process Engineering Institute, American Society of Agricultural and Biological Engineering (ASABE) (2005 to present).
- Associate Editor: Transactions of ASABE (1st ranked journal in Ag. and Biological Eng.); Applied Engineering of Agriculture; Biological Engineering (2006 to present)
- Committee Member - FPE 709 Biomass Energy and Industrial Products committee, American Society of Agricultural and Biological Engineering (ASABE) (2005 to present)
- Member Publications Committee, Institute of Biological Engineering (2007 to present)
- Member, Awards and Distinctions Committee, Institute of Biological Engineering (2007 to present)
- Session Chair, Biofuels and Bioproducts, 11th Annual Meeting of the Institute of Biological Engineering, Hilton, Tucson, Arizona (March 10-12, 2006)
- Session Chair, Ethanol and Biodiesel Industry Process Improvement, Annual Conference of ASABE, Minneapolis, MN (June 17-20)
- Session Chair, Biodiesel Process Development, ASABE Annual International Conference, Providence, RI. (July, 2008)

University and Departmental Service

- Undergraduate Committee – Department of Biological and Agricultural Engineering, TAMU (2008)
- Graduate Coordinator - Department of Agricultural and Biological Engineering (2006 to 2008)
- Member of the organizing committee - 1st MSU Biodiesel workshop, August 24, 2006. Registered attendance 209.
- Member of the organizing committee - Mississippi Biofuels Conference, August, 2007
- Leader of the Chemicals thrust at the Sustainable Energy Research Center (SERC): Coordinate research activities of 10 PIs in the departments of, Agricultural and Biological Engineering, Biochemistry, Biological Sciences, Chemical Engineering, Mechanical Engineering, Physics and Institute of Clean Energy Technology (2006 to present).
- Served in the focus group in developing the “Research and Scholarship at Mississippi State University - Development of a Strategic Plan for the Future” organized by the Office of Research and Economic Development (Nominated by the Dean, College of Agriculture and Life Sciences] (Summer 2007).

- Member, Excellence of Teaching Committee (University committee) (2004 to present).
- Member, Materials Working Group at MSU (2004 to present).
- Member Energy Working Group at MSU (2006 to present).
- Search committee chair: Chaired the search for Assistant Research Professor for Bioenergy position for the Department of Agricultural and Biological Engineering (2006).
- Member for two other departmental search committees (2005, 2006).
- Member curriculum committee (Departmental committee) (2007 to present).

Academic Advising:

Undergraduate Advising

Academic Year	Number of Advisees (approximate)
2008-2009	5
2007-2008	30
2006-2007	20
2005-2006	30
2004-2005	30
2003-2004	15

List of Graduate Students Advised as the Major Professor:

Name	Degree	Dates graduated/ Anticipated date of graduation	Present Position
Prashanth Karra	MS in Biological Eng.	2005 December (awarded)	PhD candidate at Iowa State University
Anuradh Gunawardena	MS in Biological Eng. PhD student in Biological Engineering	2008 April (Awarded) Enrolled in PhD program in Fall 2008	Graduate Research Assistant at TAMU
Sushil Adhikari	PhD in Biological Eng.	2008 April (awarded)	Assistant Professor at Auburn University
Agus Haryanto	PhD in Biological Eng.	2008 Fall (defended)	Postdoctoral Research Assistant at MSU
Saroj Jha	PhD candidate in Biological/Mechanical Eng.	2008 Fall (passed candidacy Sept. 2007)	Research Assistant at MSU
Alok Singh	PhD in Biological Eng.	2008 April (awarded)	Design Engineer at Agrisystems, Billings, MT
Ivantha Bandara	MS student in Biological Eng.	2008 Fall (expected)	Graduate Research Assistant at TAMU

	PhD student in Biological and Ag Engineering	Enrolled in Fall 2008	
Nalin Samarasinghe	MS Student in Biological and Agricultural Engineering	Enrolled in Spring 2009	Graduate Research Assistant at TAMU

List of Graduate Students Advised as the Minor Professor:

Name	Degree	Dates graduated/ Anticipated date of graduation	Present Position
Lin Wei	MS in Biological Eng.	2005 December (awarded)	PhD Student at MSU
Chavda, Chandrapalsinh	MS in Biological Eng.	2005 December (awarded)	PhD Student at Auburn U.
Prashanth Buchireddy	PhD in Chemical Engineering	2008 May	Research Assistant at MSU
Javeed Mohamed	PhD in Chemical Eng.	2008 May	Research Assistant at MSU

List of Postdoctoral Research Associates Advised as the Major Professor:

Name	Dates Employed	Present Position/Duties
Dr. Arokswamy Antonyraj	Jan 2005 - Aug 2006	Research Assistant Professor at CAVS, MSU
Dr. Shetian Liu	Jan 2007 to March 2008	Postdoctoral Research Associate at Dave E. Swalm School of Chemical Engineering at MSU
Dr. Xuejun Ye	Jan 2007 to May 2008	Present duties include heterogeneous catalysts development for biodiesel production and bio-oil upgrading.

Membership in Professional Associations:

- Member of American Society of Agricultural and Biological Engineering (ASABE) (1999 to present).
- Member of Institute of Biological Engineers (IBE) (2004 to present).
- Member of the American Chemical Society (ACS) (2005 to present).
- Member American Institute of Chemical Engineering (AIChE) (2007 to present).
- Member of the Sigma Xi Scientific Research Society (2006 to 2007).
- Member of American Society for Engineering Education (ASEE) (2004 to 2006)
- Member of Gamma Sigma Delta – Academic Honor Society (2001 to 2004).