

## **CURRICULUM VITAE**

**Venkataramana Gadhamshetty, Ph.D, P.E, BCEE, PGDM, M.ASCE**

Board Certified Environmental Engineer, AAEEES

Professional Engineering (PE) License, State of New York

*Associate Professor*

Graduate Committee Chair

Program Coordinator, Environmental Engineering Minor

Civil and Environmental Engineering

South Dakota School of Mines and Technology

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## **EDUCATION**

Post-Doctoral, Microbiology and Applied Biochemistry, December 2009

Airforce Research Laboratory, Tyndall Airforce Base, Panama City, Fl

Doctor of Philosophy, Civil Engineering, December 2007

Concentration: Environmental Engineering

New Mexico State University, Las Cruces, New Mexico, USA

Master of Science, Environmental Engineering, January 2005

New Mexico State University, Las Cruces, New Mexico, USA

Master of Science, Environmental Engineering, January 2003

National University of Singapore, Singapore

Postgraduate Diploma in Management, December 2001

All India Management Association, New Delhi, India

Bachelor of Science, Chemical Engineering Technology, May 1997

Osmania University, India

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## **PROFESSIONAL CERTIFICATES**

Certificate in Electrochemistry Measurements, Yeager Center for Electrochemistry, 2014

Board Certified Environmental Engineer (BCEE), 2013

Professional Engineer (PE) License, New York State (License#091814), 2012

National Technical Certificate, Singapore, 1998

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## **FUNDING SUPPORT**

1) Advanced bioelectrochemical module for waste-to-electricity generation during long-term space exploration, (**\$1,125,000 includes** 50% cost-share), SD NASA EPSCoR Major Research Grant (Role: Principal Investigator), **Sep 2016- Oct 2019**

- 2) Corrosion resistance of graphene in aggressive microbial environment (**\$500,000**), National Science Foundation, Career Award (Role: Principal Investigator), **Feb 2015- Jan 2020**
- 3) Bio-electrochemical and membrane technologies to reduce energy consumption of municipal effluent water treatment for power plant cooling water use, (**\$300,000**), Electric Power Research Institute (Role: Campus PI), **Aug 2016- Oct 2019**
- 4) South Dakota Surface Engineering Research Center (**\$900,000**), South Dakota Board of Regent (Role: Co-Principal Investigator), **2016-2020**
- 5) Climate Change Vulnerability Assessment and Effective Drought Management Adaptation (**\$212,279**), Intertribal Buffalo Council Conservation Innovation Grant Program (Role: Co-Principal Investigator), **2016-2017**
- 6) DakotaBioCon Life Cycle Assessment as per ISO14040:2006 and ISO14044:2006 (\$200,000), SD National Science Foundation EPSCoR (Role: Co-Principal Investigator), **2015-2017**
- 7) REU supplement for NSF-CAREER on corrosion resistance (**\$12,000**), National Science Foundation (Role: Principal Investigator), **2016-2018**
- 8) Bioelectrochemical systems for water reuse in power plants (\$70,000), Electric Power Research Institute/NYSERDA (Role: Principal Investigator), **2014-2016**
- 9) Advanced bioelectrochemical module for waste-to-electricity generation during long-term space exploration, (\$70,000; 50% cost-share), NASA EPSCoR Research Initiation Grant (Role: Principal Investigator), **Jan 2015- Oct 2016**
- 10) NASA-RIG supplement: Bio-electrochemical module (\$3,400), SD NASA EPSCoR (Role: Principal Investigator), **2015-2016**
- 11) Earth Charter Mini Grant, Center for Environmental and Sustainability Education, Florida Gulf Coast University (Role: Principal Investigator), 01/01/2014 (\$750)
- 12) Electricity production from solid organic wastes at room temperature (\$13,400), Multi-Disciplinary Research Initiative, Office of Research & Graduate Studies, Florida Gulf Coast University (Role: Principal Investigator), 07/01/2013-06/30/2014
- 13) A novel microbial fuel cell reactor design for drinking water treatment (\$15,000), EPA-G2012-P3-Q4, 9th Annual P3 Award: A National Student Design Competition for Sustainability Focusing on People, Prosperity and the Planet (Role: Co-Principal Investigator), 2012 )
- 14) A low cost bioreactor for treatment of food wastes and simultaneous electricity production (\$50,000), New York State Pollution Prevention Institute (Role: Co-Principal Investigator)
- 15) A Fuel Cell Application as a solution to solid waste disposal at Rensselaer Polytechnic Institute, NYS Pollution Prevention Institute 2nd Annual Student Competition (Role: Faculty Advisor), 2012 (\$2,000)
- 16) Portable Water Filtration System, Change the World Competition (\$1,500), 2011 Portable Water Filtration System, Rensselaer Class of '51 Entrepreneurship Fund (Role: Faculty Advisor), 2012
- 17) Microbial Fuel Cell as a revolutionary means to retrofit wastewater treatment plants (\$1,000), Change the World Competition, Rensselaer Polytechnic Institute (Role: Faculty Advisor), 2011

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## **AWARDS & HONORS**

### **1. Featured in HistoryNow, 2017**

Video available at <http://www.history.com/shows/history-now/videos/venkataramana-gadhamshetty-wants-to-power-cities-with-tomatoes>

### **2. 2016 SD Mines Research Award, SD School of Mines & Technology, 2016**

### **3. Civil and Environmental Engineering Nominee for SD Mines Research Award, 2016**

4. Researches on defective tomatoes, **Featured in over 350 media outlets including BBC World Service, Newsday Radio talk, CNN, and Popular Science**, 2016  
*Youtube video was streamlined live and featured by American Chemical Society on Mar 16, 2016*  
[https://www.youtube.com/watch?v=dxnV6FAWNLk&index=19&list=PLLG7h7fPoH8L8o4Um\\_LZTS2IHxorDgHAH](https://www.youtube.com/watch?v=dxnV6FAWNLk&index=19&list=PLLG7h7fPoH8L8o4Um_LZTS2IHxorDgHAH)
5. **National Science Foundation (NSF) CAREER Award, National Science Foundation**, 2015
6. **Class of 2015-Early Career Engineers to Watch**, National Science Foundation, 2015
7. **2015 AAEEES Honoree**, Excellence in Environmental Engineering and Science, American Academy of Environmental Engineers and Scientists, 2015
8. **Bioresource Technology (BITE) reviewer award**, Bioresource Technology, Elsevier Ltd, Oxford, UK, 2015
9. **Who's who in Environmental Engineering and Science**, American Academy of Environmental Engineers and Scientists, 2014
10. **Outstanding Professor or Researcher**, United States Citizen and Immigration Service under Sec.203(b) (1) (B), 2013
11. **Excellence in Civil Engineering Education Fellow**, American Society of Civil Engineers, 2013
12. **Potential Expert** in field of Fuel Cell Engineers, International Association of Hydrogen Energy, 2013
13. **Fuel Cell Expert**, updated O\*NET database for United States Department of Labor, 2013
14. **Marquis Who's Who in the World**, 2012
15. **Oak ridge Institute of Science & Education Fellowship Award**, 2008
16. **International Conference Travel Award** from New Mexico State University Graduate School, 2007
17. **Richard E. Speece Research Lead Author Award**, Biohydrogen Project, 2006
18. **Richard E. Speece Research Lead Author Award**, Water Conservation Project in Power Plants, 2005
19. **Outstanding Graduate Student Award**, New Mexico State University, 2005, 2006

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## **PROFESSIONAL EXPERIENCE**

P1. **Associated Professor, Civil and Environmental Engineering, South Dakota School of Mines and Technology, Rapid City, SD, 2017- Present (Tenured)**

**Assistant Professor, Civil and Environmental Engineering, South Dakota School of Mines and Technology, Rapid City, SD, 2014- 2017**

**Research (Funded by EPRI, NYSERDA, NASA-EPSCoR, NSF, and SDBOR)**

Microbial-electrochemical processes; water reuse; Graphene; Microbial corrosion

**Teaching**

Advanced Wastewater Treatment (CEE692), Fall 2016; Environmental Engineering I (CEE326), Spring 2015; Environmental Engineering II (CEE327) (Spring 2017); Microbial Fuel Cell Technology (CEE 792), Spring 2016; Environmental Engineering I (CEE 326), Fall 2015 and spring 2016; Oil and Gas Development and Environment (CEE428), Spring 2015 and Fall 2016; Senior Design for Civil Engineers (CEE489), Fall 2014, Spring 2015 (Co-teach with Dr.Kenner)

**Service**

Environmental Engineering Program Coordinator; University Research Committee member, Civil and Environmental Engr (CEE) representative; Faculty Advisor, CEE Workshop for high school students;

Web Master for CEE; Judge for undergraduate research symposium; Lead role for developing new CEE PhD program

**P2. Assistant Professor, Environmental and Civil Engineering Department, Florida Gulf Coast University (FGCU), Fort Myers, January 2013- July 2014**

**Research (Funded by Multidisciplinary Research Initiative Award; Center for Environmental and Sustainability Education)**

Electricity generation from tomato spoilages

**Teaching**

University Colloquium (IDS3920), Spring 2014; Thermodynamics (EGN 3343C), Spring 2014; Fluid Mechanics (CWR 3201C), Fall 2013; Solid Waste Engr (ENV 4351), Fall 2013; Engr Design (EGN1006L), Fall 2013; Computational tools (EGN 1041C), Spring, Summer 2013; Fundamentals of Environmental Engr (ENV 3006), Spring 2013; Sustainability in Engr (ENV 4612), Spring 2013

**Service**

Faculty Mentor, Florida-Georgia Louis Stokes Alliance for Minority Participation; Faculty Advisor, Engineers Without Borders, 2013; Alternate Faculty Senator, Florida Gulf Coast University; Member, Faculty Senate Committee for Institutional Affairs

**P3. Clinical Assistant Professor, Civil and Environmental Engineering Department, Rensselaer Polytechnic Institute, NY, January 01<sup>st</sup> 2010- December 31<sup>st</sup> 2012**

**Research (Funded by EPA – P3 and New York state pollution prevention institute)**

Bioelectrochemical Systems for treating drinking water sources, food wastes; chlorinated compounds.

**Teaching**

Mathematical modeling of Environmental Processes, Spring 2010 (ENVE 6230); Microbial Fuel Cell Technology, Spring 2011 (ENVE 6961); Introduction to Engr Design, Spring 2010, 2011, 2012; Fall 2011, 2012 (ENGR 2050); Solid & Hazardous Waste Management, Spring 2010, Spring 2011 (ENVE 4200); Biological Processes in Environmental Engr, 2010 (ENVE 4350); Introduction to Environmental Engr, Fall 2010, Fall 2011 (ENVE 2100); Environmental Engr Laboratory, Fall 2010 (ENVE 4150); *Faculty Advisor for* Twenty eight Undergraduate Research Projects in Renewable Energy (Titles available upon request)

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**P4. Postdoctoral Research Scientist, Microbiology and Applied Biochemistry Laboratory, U.S Airforce Research Laboratory, Panama City, Fl**

January 01<sup>st</sup> 2008- December 31<sup>st</sup> 2009

Investigate the role of flavin compounds on *Shewanella*'s respiration

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**P5. Research Assistant, Civil and Environmental Engineering, New Mexico State University**

August 2005- December 2007

Biohydrogen under low pH and 100% hydrogen partial pressure; Anaerobic Digestion Model for H<sub>2</sub> production; Air-cooled condenser for water conservation in combined cycle power plants

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**P6. Teaching Assistant, August 2004- August 2005, Civil and Environmental Engineering, New Mexico State University, NM, August 2005- December 2007**

Environmental Chemistry Lab (CE 256L); Fluid Mechanics (CE231); Hydraulic Engineering (CE331)

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**P7. Graduate Assistant, New Mexico Space Grant Consortium, NM,**

*August 2003- December 2004*

- A **TRAINER** for 23 professors (Assistant and Associate Level) in a Faculty Development Program: Gaining Retention and Achievement of Students Program (GRASP)

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**P8. Process Engineering Coordinator, Polymer Operations, DuPont Singapore Pte Ltd, Singapore, June 1998- June 2003**

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**PEER-REVIEWED PUBLICATIONS** (\* represents corresponding author)

1. Shrestha, N.; Govinda, R.C; Lichao, X.; Alvarado, C.; Kilduff, J.E.; Belfort, G.; and Gadhamshetty, Water Research, (2017). Integrated microbial fuel cell/membrane technology for wastewater reuse as cooling water in power plants, 111: 37 (*Impact Factor: 5.267*)  
<http://www.sciencedirect.com/science/article/pii/S0043135417302270>
2. Venkata K.K. Upadhyayula.; Gadhamshetty, V\*.; David. E. Meyer.; and Koratkar, N., ACS Sustainable Chemistry & Engineering (2016). Screening Level Environmental Life Cycle Assessment of Graphene Oxide Based Coatings and Paint Systems for Atmospheric Corrosion Resistance in Aggressive Environment, 5(3), 2656-2667. (*Impact Factor: 5.323*)
3. Shrestha, N.; Chilkoor, G.; Gadhamshetty, V.; Potential water resource impacts of hydraulic fracturing for unconventional oil production from Bakken Shale, Water Research (2016) DOI: 10.1016/j.watres.2016.11.006 (*Impact Factor: 5.323*)
4. Govinda Chilkoor.; Venkata K.K. Upadhyayula.; Gadhamshetty, V.; Koratkar, N., Tyskland, M. Environmental Science: Processes and Impacts (2016), Sustainability of Renewable Fuel Infrastructure: An LCA Case Study of Anti-Corrosive, Graphene Oxide Liners in Steel Tanks for Storage of Biodiesel and its Blends, 19 (2), 141-153
5. Fogg, A.; Shrestha, N.; Gadhamshetty\*, V.; et al., Electricity generation from defective tomatoes, Bioelectrochemistry (2016), 112: 67-76 (*Impact Factor: 3.556*)  
<http://www.ncbi.nlm.nih.gov/pubmed/27474917>  
DOI: 10.1016/j.bioelechem.2016.07.005
6. Gadhamshetty, V.; Shrestha, N.; Kilduff, J.; (2016). Project-Based Introduction to Engineering Design Course Incorporating Microbial Fuel Cells as a Renewable Energy Technology, American Society of Civil Engineering, Journal of Professional Issues in Engineering Education and Practice, , 10.1061/(ASCE)EI.1943-5541.0000272 , 05016001.  
<http://ascelibrary.org/doi/10.1061/%28ASCE%29EI.1943-5541.0000272>
7. Krishnamurthy, A.; Gadhamshetty, V\*.; Mukherjee, R.; Chen, Z.; Ren, W.; Cheng, H. M.; Koratkar, N. (2015). Superiority of graphene over polymer coatings for microbial corrosion. Scientific Reports, Nature Publication Group, 5: 13858 (*Impact Factor: 5.228*)  
<http://www.nature.com/articles/srep13858>  
DOI: 10.1038/srep13858; <http://www.nature.com/articles/srep13858#supplementary-information>
8. Nguyen, D.; Gadhamshetty, V.; Khanal, S. (2015). Automatic process control in anaerobic digestion technology: a critical review. Bioresource Technology, 193:513-522.  
<http://www.sciencedirect.com/science/article/pii/S0960852415008718>  
DOI:10.1016/j.biortech.2015.06.080 (*Impact Factor: 4.917*)
9. Fogg, A.; Gadhamshetty\*, V.; Franco, D.; Wilder, J.; Agapi, S.; Komisar, S. (2015). Can a microbial fuel cell resist oxidation of pomace? Journal of Power Sources, 279:781-790.  
<http://www.sciencedirect.com/science/article/pii/S0378775315000324>

[DOI:10.1016/j.jpowsour.2015.01.031](https://doi.org/10.1016/j.jpowsour.2015.01.031) (Impact Factor: 5.211)

10. Gadhamshetty\*, V.; Gude, V. G.; Nirmalakhandan, N. (2014). Thermal energy storage system for energy conservation and water desalination in power plants. *Energy*, 66, 938-949.

<http://www.sciencedirect.com/science/article/pii/S0360544214000541>

DOI: 10.1016/j.energy.2014.01.046 (Impact Factor: 3.651).

11. Gude, V.; Kokabian, B.; Gadhamshetty\*, V. (2013). Beneficial bioelectrochemical systems for energy, water, and biomass production. *Journal of Microbial Biochemical Technology S*, 6, 2

<http://omicsonline.org/beneficial-bioelectrochemical-systems-for-energy-water-and-biomass-production-1948-5948.S6-005.php?aid=18511> (Impact Factor: 1.35)

12. Krishnamurthy, A.; Gadhamshetty\*, V.; Mukherjee, R.; Chen, Z.; Ren, W.; Cheng, H. M.; Koratkar, N. (2013). Passivation of microbial corrosion using a graphene coating. *Carbon*, 56, 45-49 (**Selected as Editor's Pick**)

<http://www.journals.elsevier.com/carbon/editors-choice/passivation-of-microbial-corrosion-using-a-graphene-coating/>

DOI: 10.1016/j.carbon.2012.12.060 (Impact Factor: 5.868).

13. Gadhamshetty\*, V.; Belanger, D.; Gardiner, C. J.; Cummings, A.; Hynes, A. (2013). Evaluation of Laminaria-based microbial fuel cells (LbMs) for electricity production. *Bioresource Technology*, 127, 378-385

<http://www.sciencedirect.com/science/article/pii/S0960852412014290>

DOI: 10.1016/j.biortech.2012.09.079 (Impact Factor 4.75).

14. Roy, J. N.; Luckarift, H. R.; Lau, C.; Falase, A.; Garcia, K. E.; Ista, L. K.; Chellamuthu, P.; Ramasamy, R. P.; Gadhamshetty, V.; Wanger, G.; Gorby, Y. A.; Nealson, K. H.; Bretschger, O.; Johnson, G. R.; Atanassov, P. (2015). A study of the flavin response by *Shewanella* cultures in carbon-limited environments. *Royal Society of Chemistry Advances*, 2, (26), 10020-10027.

<http://pubs.rsc.org/en/Content/ArticleLanding/2012/RA/C2RA21727A#!divAbstract> (Impact Factor: 3.708)

15. Gadhamshetty, V.; Koratkar, N., Nano-engineered biocatalyst-electrode structures for next generation microbial fuel cells. *Nano Energy* 2012, 1, (1), 3-5

<http://www.sciencedirect.com/science/article/pii/S221128551100019X>.

DOI:10.1016/j.nanoen.2011.11.003 (Impact Factor: 11.553)

16. Perera, K. R. J.; Arudchelvam, Y.; Gadhamshetty, V.; Nirmalakhandan, N., Modeling and simulation of net energy gain by dark fermentation. *International Journal of Hydrogen Energy* 2012, 37, (3), 2267-2272

<http://www.sciencedirect.com/science/article/pii/S0360319911024256>

DOI:10.1016/j.ijhydene.2011.10.059 (Impact Factor: 2.93)

17. Gadhamshetty, V.; Sukumaran, A.; Nirmalakhandan, N., Photoparameters in photofermentative biohydrogen production. *Critical Reviews in Environmental Science and Technology* 2010, 41, (1), 1-51

<http://www.tandfonline.com/doi/abs/10.1080/10643380802502011#preview>

DOI: 10.1080/10643380802502011 (Impact Factor: 3.238)

18. Perera, K. R. J.; Ketheesan, B.; Gadhamshetty, V.; Nirmalakhandan, N., Fermentative biohydrogen production: Evaluation of net energy gain. *International Journal of Hydrogen Energy* 2010, 35, (22), 12224-12233

<http://www.sciencedirect.com/science/article/pii/S0360319911024256>

DOI:10.1016/j.ijhydene.2010.08.037 (Impact Factor: 2.93)

19. Upadhyayula, V. K. K.; Gadhamshetty, V., Appreciating the role of carbon nanotube composites in preventing biofouling and promoting biofilms on material surfaces in environmental engineering: A review. *Biotechnology Advance* 2010, 28, (6), 802-816 <http://www.ncbi.nlm.nih.gov/pubmed/20599491>  
*DOI:10.1016/j.biotechadv.2010.06.006 (Impact Factor: 9.038)*
20. Gadhamshetty, V\*.; Arudchelvam, Y.; Nirmalakhandan, N.; Johnson, D. C., Modeling dark fermentation for biohydrogen production: ADM1-based model vs. Gompertz model. *International Journal of Hydrogen Energy* 2010, 35, (2), 479-490  
<http://www.sciencedirect.com/science/article/pii/S0360319909017443>  
*DOI:10.1016/j.ijhydene.2009.11.007 (Impact Factor: 2.93)*
21. Gadhamshetty, V\*.; Johnson, D. C.; Nirmalakhandan, N.; Smith, G. B.; Deng, S. G., Feasibility of biohydrogen production at low temperatures in unbuffered reactors. *International Journal of Hydrogen Energy* 2009, 34, (3), 1233-1243  
<http://www.sciencedirect.com/science/article/pii/S0360319908013694>  
*DOI:10.1016/j.ijhydene.2008.10.037 (Impact Factor: 2.93)*
22. Ramasamy, R. P.; Gadhamshetty, V.; Nadeau, L. J.; Johnson, G. R., Impedance spectroscopy as a tool for non-intrusive detection of extracellular mediators in microbial fuel cells. *Biotechnology Bioengineering* 2009, 104, (5), 882-891  
<http://www.ncbi.nlm.nih.gov/pubmed/19585525> (Impact Factor: 4.164)
23. Gadhamshetty, V\*.; Johnson, D. C.; Nirmalakhandan, N.; Smith, G. B.; Deng, S. G., Dark and acidic conditions for fermentative hydrogen production. *International Journal of Hydrogen Energy* 2009, 34, (2), 821-826  
<http://www.sciencedirect.com/science/article/pii/S0360319908015644>  
*DOI:10.1016/j.ijhydene.2008.11.040 (Impact Factor: 2.93)*
24. Gadhamshetty, V.; Sukumaran, A.; Nirmalakhandan, N.; Myint, M. T., Photofermentation of malate for biohydrogen production - A modeling approach. *International Journal of Hydrogen Energy* 2008, 33, (9), 2138-2146  
<http://www.sciencedirect.com/science/article/pii/S036031990800205X>  
*DOI:10.1016/j.ijhydene.2008.02.046 (Impact Factor: 2.93)*
25. Gadhamshetty, V.; Nirmalakhandan, N.; Myint, M.; Ricketts, C., Improving air-cooled condenser performance in combined cycle power plants. *Journal of energy engineering* 2006, 132, (2), 81-88  
<http://ascelibrary.org/doi/abs/10.1061/%28ASCE%290733-9402%282006%29132%3A2%2881%29>
26. McShannon, J.; Hynes, P.; Nirmalakhandan, N.; Venkataramana, G.; Ricketts, C.; Ulery, A.; Steiner, R., Gaining retention and achievement for students program: A faculty development program. *American Society of Civil Engineering, Journal of Professional Issues in Engineering Education and Practice* 2006, 132, (3), 204-208  
<http://ascelibrary.org/doi/abs/10.1061/%28ASCE%291052-3928%282006%29132%3A3%28204%29>
27. Venkata K.K. Upadhyayula.; Gadhamshetty, V\*.; et al., Game-Changing Innovations: Surviving Technology Death Valley Using Environmental Sustainability as a Key Differentiator. *A Perspective (Under Preparation)*
28. S.S. Dhiman; Shrestha, N; A. David; G. Johnson; K.M. Benjamin; V.Gadhamshetty; R.Sani.; Harvesting different forms of bioenergy from food waste *(Under Preparation)*
29. Govinda, R.C.; Shrestha, N.; Gadhamshetty, V\*.; Bakken Flowback water on pipeline corrosion *(Under Preparation)*
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30. Gadhamshetty, V.; et al., Net-electricity production in *Shewanella*-based gravity-fed microbial fuel cells (Under Preparation)
  31. Govinda, R.C.; Gadhamshetty, V\*.; Krishnamurthy, A.; and Koratkar, N., Microbes enhance nickel corrosion in microbial electrochemical systems (Under Preparation)
  32. Johnson, G.R.; Gadhamshetty, V.; Sani, R.; and Diltz, R.A., Evaluation of Bioelectrochemical Systems for Waste-to-Energy (In Prep)
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### **PEER-REVIEWED PROCEEDINGS**

1. Shrestha, N, Chilkoor, K.G, Gadhamshetty, V, (2016). New electrochemical approaches for treating flowback water from hydraulically fractured oil fields, 101st Annual Meeting South Dakota Academy of Sciences, April 8<sup>th</sup>- 9<sup>th</sup>, Sioux Falls, SD, USA.
2. Chilkoor, K.G, Shrestha, N, Gadhamshetty, V, (2016). Flowback water corrosion behavior and its impact on water resources, 101st Annual Meeting South Dakota Academy of Sciences, April 8<sup>th</sup>- 9<sup>th</sup>, Sioux Falls, SD, USA.
3. Chilkoor, K.G, Shrestha, N, Star, S, Gadhamshetty, V, (2016). Material degradation problems with metallic electrodes in microbial, electrochemical technologies. American chemical Society National Meeting, March 13-17, San Diego, California, USA
4. Shrestha, N, Gadhamshetty, V\* and Elmore, G. (2015). Bioelectrochemical/membrane technologies for enabling energy-efficient wastewater reuse in power plants, 100th Annual Meeting South Dakota Academy of Sciences, April 10-11, Cedar Shore Resort and Bridges Conference Center Oacoma, SD, USA
5. Gadhamshetty, V\* and Johnson, D (2015). Novel use of low-pH fermentation in bioelectrochemical processes, Negative Carbon Emission Technologies: BEECCS (Bio-Energy with Carbon Capture & Storage), 249th American Chemical Society National Meeting and Exposition,, March 22-26, Denver, CO, USA
6. Gadhamshetty, V\* and Upadhyayula, V.K (2015). Can graphene appear greener to galvanization industry, Two-dimensional Materials for Energy & Fuel, 249th American Chemical Society National Meeting and Exposition,, March 22-26, Denver, CO, USA
7. Gadhamshetty, V\*, and Gude, V.G (2014). Energy conservation and water desalination in power plants using thermal energy storage. Water Reuse in Texas: Integrative Assessment and Management, Division of Environmental Chemistry, 247<sup>th</sup> American Chemical Society National Meeting and Exposition, March 16-20, Dallas, Texas, USA
8. Gadhamshetty, V\*, Krishnamurthy, A, and Koratkar, N (2014). Beating the Bugs: Graphene and Polymer Coatings for Microbial Corrosion, Two Dimensional material for Energy and Fuel, Division of Energy and Fuels, 247<sup>th</sup> American Chemical Society National Meeting and Exposition,, March 16-20, Dallas, Texas, USA
9. Fogg, A, Agapi, S, Franco, D, and Gadhamshetty, V\* (2014). Electricity Production from Algae and Farm Wastes at Ambient Conditions, Energy and Fuel from Biomass, Division of Energy and Fuels, 247<sup>th</sup> American Chemical Society National Meeting and Exposition, March 16-20, Dallas, Texas, USA
10. Gadhamshetty, V\*, Willner, W., Hynes, A., and Nyman, M., (2013). Bioremediation of Benzidine Contaminants in Microbial Fuel Cells. Microbial Fuel Cells, Session E8, Second International Symposium on Bioremediation and Sustainable Environmental Technologies , June 10-13, Jacksonville, Florida



11. Gadhamshetty, V\*, Krishnamoorthy, A, and Koratkar, N (2013). Microbial Fuel Cells as a Tool to Study Microbial Corrosion (Abstract 188). Environmental and Social Impacts from Biofuels and Other Biology-Based Alternative Energy Sources, Session E6, Second International Symposium on Bioremediation and Sustainable Environmental Technologies, June 10-13, Jacksonville, Florida
  12. Gadhamshetty, V\*, Willner, W., Hynes, A., and Nyman, M., (2013). Treatment of DCB congeners in microbial fuel cells for energy production. Bioenergy and Biofuels, Division of Energy and Fuels, American Chemical Society Meeting, April 7-11, 2013, New Orleans, Louisiana, USA
  13. Gadhamshetty, V\*, Krishnamoorthy, A, and Koratkar, N (2013). Application of graphene to obtain anti-corrosion metal electrodes in microbial fuel cells. Nanomaterials and Nanotechnology for Energy and Fuels, Division of Energy and Fuels, American Chemical Society Meeting, April 7-11, 2013, New Orleans, Louisiana, USA
  14. Gadhamshetty, V\*, Ramaraja, P. Ramasamy, and Johnson, R. Glenn (2013). A stack of Shewanella-based microbial fuel cells to obtain 1.1 V DC power source. Bioenergy and Biofuels, Division of Energy and Fuels, American Chemical Society Meeting, April 7-11, 2013, New Orleans, Louisiana, USA
  15. Gadhamshetty, V\*, Johnson, D, Nirmalakhandan, N, and Smith, G (2013). Easy method for hydrogen production at pH below 4.0. Bioenergy and Biofuels, Division of Energy and Fuels, American Chemical Society Meeting, April 7-11, 2013, New Orleans, Louisiana, USA
  16. Khandan, N.N, Gadhamshetty, V, Gude, V Thermal Energy Storage Systems for Utilizing Low-grade Waste Heat Sources. The 3<sup>rd</sup> IEEE International Conference on Sustainable Energy Technologies (ICSET'12), 2012
  17. Perera, K.R.J., Gadhamshetty, V., Khandan, N.N. Biohydrogen production from cattle manure. In proceedings of ASCE-EWRI conference on International Perspectives on Environmental & Water Resources, Bangkok, Thailand, January 2009
  18. Khandan, N.N, Gadhamshetty, V, Improving Combined Cycle Power Plant Performance in Arid Regions. In CD-ROM proceedings of 6th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Pretoria, South Africa, 2008
  19. Gadhamshetty, V., Johnson, C.D., Khandan, N.N., Smith, G., and Deng, S. Adapting ADM1 model in biohydrogen studies. In CD-ROM proceedings of Vth International Symposium on Anaerobic Digestion of Solid Wastes and Energy Crops Vth ISAD-SW&EC 2008 Hammamet, Tunisia, May 25 to 28, 2008
  20. Gadhamshetty, V., Johnson, C.D., Khandan, N.N., Smith, G., and Deng, S. Intermittent pressure release for enhanced biohydrogen production. In CD-ROM proceedings of Vth International Symposium on Anaerobic Digestion of Solid Wastes and Energy Crops Vth ISAD-SW&EC 2008 Hammamet, Tunisia, May 25 to 28, 2008
  21. Gadhamshetty, V., and Khandan, N.N. Exergy analysis of Air-cooled Performance in Combined Cycle Power Plants. In CD-ROM proceedings of International Conference on Thermal Engineering and Application, Amman, Jordan, 2007
  22. Khandan, N.N, Gadhamshetty, V, Mummaneni, A. Improving Combined Cycle Power Plant Performance in Arid Regions. In CD-ROM proceedings of 6th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Pretoria, South Africa, 2008
  23. GB Smith, N. Khandan, Z. Samani, S. Deng, M. Macias-Corral, V. Gadhamshetty, D. Johnson, M. Myint, A. Fierro-Lopez and C. Arrigo. La Produccion de Bioenergia (CH<sub>4</sub>, H<sub>2</sub>, e<sup>-</sup>) Usando Residuos Organicos. In Proceedings of Bioenergy, 2007, Mexico
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## **INVITED BOOK CHAPTERS**

1. Gadhamshetty, V.; Shrestha, N.; Chilkoor, K.G.; Bathi, J.R. (2015). Emerging environmental impacts of unconventional oil development at Bakken formation in the Williston basin of western North Dakota, Hydraulic Fracturing: Environmental Issues , Ed., Drogos, D. American Chemical Society Symposium Series, American Chemical Society
2. Khanal, S.K., Giri, B., Nityavardhana, S., Gadhamshetty, V, Anaerobic bioreactors/digesters: Design and development, Current Developments in Biotechnology and Bioengineering (A comprehensive series of seven volumes). Volume IV A: Biological treatment of industrial wastes. Vol Ed., Duu Jong Lee, Jega Jegatheesan, Hao Huu Ngo, Patrick C Hallenbeck, Ashok Pandey
3. Hongjian, B., Liu, H., Gadhamshetty, V., (2015), Microbial Fuel Cells, Bioenergy: Principles and applications, Ed., Samir Khanal and Yebo Li. Wiley Blackwell publishing.
4. Gadhamshetty, V (2013). Environmental Engineering Lessons, 101 Things I Learned in Engineering School, Ed., John Kuprena and Matthew Frederick. Grand Central Publishing
5. Gadhamshetty, V., Rasika, P., Khandan, N.N., and Johnson, C.D (2012). Fermentation systems towards hydrogen production, Nova Publishers. Advances in Energy Research (11), ISBN: 978-1-61942-825-6
6. Gadhamshetty, V., Khandan, N.N., Samir, K., and Glenn R. J (2010). Bioreactor design for Biofuel and Bioenergy production, ASCE, Ed., Samir Khanal, ASCE. Biofuel production from cellulosic and lignocellulosic wastes, ISBN: 9780784410899

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## **TECHNICAL REPORTS**

1. Gadhamshetty, V., and Kilduff, J., Bioelectrochemical/Membrane approaches for enabling wastewater reuse in power plants, New York State Energy Research Development Agency, Annual Report, October 2016
2. Gadhamshetty, V., Corrosion resistance of nano-scale graphene coatings in aggressive microbial environment, National Science Foundation, Annual Report, December 2015
3. Kilduff, J., and Gadhamshetty, V., A low cost bioreactor module for treatment of food wastes and simultaneous electricity production, New York State Pollution Prevention Institute, Final Report, August 2014
4. Kilduff, J., Gadhamshetty, V., and Baveyye, P. A low cost bioreactor module for treatment of food wastes and simultaneous electricity production, New York State Pollution Prevention Institute, Second Quarterly Report, A 2013
5. Kilduff, J., Gadhamshetty, V., and Baveyye, P. A low cost bioreactor module for treatment of food wastes and simultaneous electricity production, New York State Pollution Prevention Institute, Third Quarterly Report, April 2013
6. Kilduff, J., and Gadhamshetty, V., and A low cost bioreactor module for treatment of food wastes and simultaneous electricity production, New York State Pollution Prevention Institute, First Quarterly Report, September 2012
7. Kilduff, J., and Gadhamshetty, V., Bioelectrochemical reduction of aqueous contaminants in drinking water. Technical Report, EPA P3 student design competition, Washington, DC, March 2013 (SU835305)
8. Gadhamshetty, V., Khandan, N.N., Maganti, A., Gude, J., and Johnson, C.D Photobioreactor for hydrogen production from cattle manure. Technical Report, EPA P3 student design competition, Washington, DC, March 2005

### CONFERENCE PRESENTATIONS

1. Venkata K.K. Upadhyayula, Nabil Souihi, Mats Tysklind, Venkataramana Gadhamshetty (2016). Disruptive Technologies: Surviving Technology Valley of Death with Improved sustainable Performance (Case Studies from Nano and Biotech Industry), The 12<sup>th</sup> Biennial International Conference on EcoBalance, October 3-6, Kyoto, Japan
2. K. Chilkoor Gopala, N. Shrestha, V.R. Gadhamshetty\* (2016), Characterizing Sulfate-reducing-G20 biofilm growth on Metal dichalcogenide using electrochemical and spectroscopic techniques, American chemical Society National Meeting, August 21-25, Philadelphia, PA, USA
3. N. Shrestha, K. Chilkoor Gopala, V.R. Gadhamshetty\* (2016), Correlation between electrochemical impedance and biofilm growth rate in the microbial capacitive deionization cell used for flowback water treatment, American chemical Society National Meeting, August 21-25, Philadelphia, PA, USA
4. Shrestha, N, Fogg, A, Wilder, J, Gadhamshetty, V\* (2016). Research and Development in Solid Waste Management: Energy recovery from defective tomatoes (culls), 3rd Joint SD/ND/MT Solid Waste Conference and Trade Show, September 13 – 15, Deadwood, SD, USA.
5. Chilkoor, K.G, Shrestha, N, Gadhamshetty, V\* (2016). Research and Development in Solid Waste Management: Fate of Flowback water in carbon steel transmission network and its associated environmental impacts, 3rd Joint SD/ND/MT Solid Waste Conference and Trade Show, September 13 – 15, Deadwood, SD, USA.
6. Shrestha, N, Chilkoor, K.G, Gadhamshetty, V\* (2016). Bio-electrochemical Approaches for Treatment of Flowback Water from Hydraulically Fractured Oil Fields, Student Research symposium 2016, April 15, SDSM&T, SD, USA.
7. Chilkoor, K.G, Shrestha, N, Gadhamshetty, V\*(2016). In-situ Accumulation of Flowback Water Contaminants on the Corroded Pipeline Surfaces, Student Research symposium 2016, April 15, SDSM&T, SD, USA.
8. Shrestha, N, Chilkoor, K.G, Gadhamshetty, V\* (2016). New electrochemical approaches for treating flowback water from hydraulically fractured oil fields, 101st Annual Meeting South Dakota Academy of Sciences, April 8th- 9th, Sioux Falls, SD, USA.
9. Chilkoor, K.G, Shrestha, N, Gadhamshetty,V\* (2016). Flowback water corrosion behavior and its impact on water resources, 101st Annual Meeting South Dakota Academy of Sciences, April 8th- 9th, Sioux Falls, SD, USA.
10. Shrestha, N, Chilkoor, K.G, Gadhamshetty,V\* (2016). Microbial-electrochemical Approaches for the Treatment of Super-saline Flowback Wastewater for Subsequent Reuse in the Oil Fields, 28th Annual Environmental and Ground Water Quality Conference, March 23-24rd, Pierre, SD, USA
11. Chilkoor, K.G, Shrestha, N, Gadhamshetty, V\* (2016). Water Quality and Corrosion Aspects Associated During the Transportation of Saline Flowback Water from Fractured Oil Fields, 28th Annual Environmental and Ground Water Quality Conference, March 23-24rd, Pierre, SD, USA

12. Chilkoor, K.G, Shrestha, N, Gadhamshetty, V\* (2016). Corrosion-induced environmental challenges due to the backflow water from Bakken play, Environmental Aspects of Unconventional Oil and Gas Production and Hydraulic Fracturing, Division of Environmental Chemistry, 251<sup>st</sup> American Chemical Society National Meeting & Exposition, March 13-17, San Diego, CA, USA
13. Fogg, A, Shrestha, N, Franco, D., Gadhamshetty, V\* (2016). Energy recovery from defective tomatoes using Microbial Electrochemical Systems -Evaluating impedance characteristics of peel & seed to oxidation of culls, Environmental Aspects of Unconventional Oil and Gas Production and Hydraulic Fracturing, Division of Environmental Chemistry, 251<sup>st</sup> American Chemical Society National Meeting & Exposition, March 13-17, San Diego, CA, USA
14. Chilkoor, K.G, Shrestha, N, Gadhamshetty, V\* (2016). Evaluating the material degradation problems with 3D metallic foam as anode in microbial electrochemical systems, Novel Materials for Energy & Fuels-Oral, Division of Environmental and Fuels, 251<sup>st</sup> American Chemical Society National Meeting & Exposition, March 13-17, San Diego, CA, USA
15. Chilkoor, K.G, Shrestha, N, Koratkar, N, Gadhamshetty, V\* (2016). Evaluating the use of metal dichalcogenides as corrosion-resistant coatings in aggressive microbial conditions, Membrane Technology for Water-Energy Sustainability, Division of Environmental Chemistry, 251<sup>st</sup> American Chemical Society National Meeting & Exposition, March 13-17, San Diego, CA, USA
16. Shrestha, N, Chilkoor, K.G, Kilduff, J.E, Gadhamshetty, V\* (2016). Anti-fouling membranes in an ultrafiltration-integrated microbial fuel cell system for enabling reuse of municipal wastewater in power plants, Water treatment technologies to support “Food-Energy-Water Nexus” water conservation needs, Division of Environmental Chemistry, 251<sup>st</sup> American Chemical Society National Meeting & Exposition, March 13-17, San Diego, CA, USA
17. Shrestha, N, Chilkoor, K.G, Gadhamshetty, V\* (2016). A two-staged microbial-driven bioelectrochemical approach for desalination and chemical oxygen demand removal from Bakken’s high-strength, super-saline backflow water, Environmental Aspects of Unconventional Oil and Gas Production and Hydraulic Fracturing, Division of Environmental Chemistry, 251<sup>st</sup> American Chemical Society National Meeting & Exposition, March 13-17, San Diego, CA, USA
18. Shende, A, Shrestha, N, Gadhamshetty, V\* (2015). Evaluation of a facultative anaerobes isolated from the Sanford Underground Research Laboratory for lignin degradation in microbial electrochemical systems, Innovative Materials & Technologies for Water Purification, Division of Environmental Chemistry, 251<sup>st</sup> American Chemical Society National Meeting & Exposition, March 13-17, San Diego, CA, USA
19. Gadhamshetty, V\* (2015), Electromicrobiology, deeper subsurface, and engineering applications, Parallel Session: Biology 2: Extremophile Biotechnology: Advances and Challenges, Conference on Science at the Sanford Underground Research Laboratory, May 18<sup>th</sup>, Rapid City, SD, USA
20. Gadhamshetty, V\* (2015), Back to the Future of Garbage, 2015 Spring Solid Waste Operators Workshop, South Dakota Solid Waste Management Association, March 12<sup>th</sup>, State Game Lodge, Custer, SD, USA (**Keynote speaker**)
21. Gadhamshetty, V\*, and Shrestha, N (2015). Emerging bioelectrochemical technologies for water and wastewater treatment, 27th Annual Environmental and Ground Water Quality Conference, March 11<sup>th</sup>, Pierre, SD, USA
22. Gadhamshetty, V\*, and Gude, V (2015). Feasibility of thermal technologies for reuse of oil and gas exploration and production wastewater, Water Sustainability in Oil and Gas Exploration: Treatment

- Issues, Division of Environmental Chemistry, American Chemical Society Meeting, March 22-26, Denver, CO, USA
23. Gadhamshetty, V\*, and Fogg, A (2015). Is tomato worth an electron? Bioelectrochemical treatment of waste residues from tomato processing industry, Agricultural and the Environment, Division of Agricultural and Food Chemistry, American Chemical Society Meeting, March 22-26, Denver, CO, USA
  24. Gadhamshetty, V\* and Shreshta, N (2015). Feasibility of integrated bioelectrochemical/membrane technologies for wastewater reuse in power plants, Water Recycling in Domestic Use, Energy Extraction, and Agricultural Use, Division of Environmental Chemistry, American Chemical Society Meeting, March 22-26, , Denver, CO, USA
  25. Gadhamshetty, V (2014). Can a microbe produce electricity? Feasibility of bioelectrochemical systems for electricity production from organic waste, Chemical and Biological Engineering Department seminar series, South Dakota School of Mines and Technology, Nov. 30, Rapid City, SD, USA
  26. Gadhamshetty, V (2014). Low-cost bioelectrochemical technology for electricity production from waste, South Dakota Engineering Society Fall Conference, Oct. 9, Rapid City, SD, USA
  27. Gude, V.G., Gadhamshetty, V., Nirmalakhandan, N. (2014) Dual Purpose Power-Desalination Plant Augmented by Thermal Energy Storage, 10th International HEFAT Conference, July 13-16, Orlando, FL, USA
  28. Gude, V.G., Gadhamshetty, V., Nirmalakhandan, N (2014). An Innovative Application of Thermal Energy Storage for Power Production and Desalination, ASES National SOLAR Conference, July 6-10, San Francisco, USA
  29. Gadhamshetty, V\*, Krishnamurthy, A, and Koratkar, N (2014). Innovative Graphene for Treatment of Organic Wastes at Room Temperature, Innovative materials for waste recycling and environmental applications, Division of Environmental Chemistry, American Chemical Society Meeting, March 19, Dallas, Texas, USA
  30. Fogg, A, Agapi, S, Franco, D, and Gadhamshetty, V\* (2014) New Bioelectrochemical Technology for Production of DC Power from Vegetable Wastes, Research and Development in Processes for Waste Recycling and Metal Recover, Division of Industrial Engineering and Chemistry, American Chemical Society Meeting, March 16-20, Dallas, Texas, USA
  31. Gadhamshetty, V\* and Upadhyayula, V.K.K (2014). Life Cycle Assessment of Graphene Coatings for Corrosion Applications, Nanotechnology for Sustainable Resources and Environmental Science, Division of Environmental Chemistry, American Chemical Society Meeting, March 16-20, Dallas, Texas, USA
  32. Hynes, A., Gorby, Y., Hyde, J., Gadhamshetty, V. (2013) Electric Cell-Impedance Spectroscopy at the Biological-Inorganic Interface, *Shewanella oneidensis* - Gold, for Microbial Fuel Cell Applications. Hybrid Organic - Inorganic Materials for Alternative Energy, Materials Science & Technology, October 27-31, Montreal, Quebec Canada
  33. Gadhamshetty, V\*, Krishnamurthy, A., and Koratkar, N. (2013). Microbial Fuel Cells as a Tool to Study Microbial Corrosion. Environmental and Social Impacts from Biofuels and Other Biology-Based Alternative Energy (Session E6), Second International Symposium on Bioremediation and Sustainable Environmental Technologies, Battelle, June 10-13, Jacksonville, Florida, USA
  34. Gadhamshetty, V\*, Willner, W., Hynes, A., and Nyman, M. (2013). Bioremediation of Benzidine Contaminants in Microbial Fuel Cells. Microbial Fuel Cells (Session E8), Second International

- Symposium on Bioremediation and Sustainable Environmental Technologies, Battelle, June 10-13, Jacksonville, Florida, USA
35. Gadhamshetty, V\*, Belanger, D., Fischbach, K., and Kilduff, C. (2013). Extracting electrons from food waste for drinking water treatment. Energy Recovery from Waste: Technological and Environmental Issues, Division of Environmental Chemistry, American Chemical Society Meeting, April 7-11, New Orleans, Louisiana, USA
  36. Gadhamshetty, V\*, Belanger, D., Fischbach, K., and Kilduff, C. (2013). Bioelectrochemical reactor for energy production from food waste. Energy Recovery from Waste: Technological and Environmental Issues, Division of Environmental Chemistry, American Chemical Society Meeting, April 7-11, New Orleans, Louisiana, USA
  37. Gadhamshetty, V\*, Willner, W., Hynes, A., and Nyman, M. (2013). Bioremediation of Hydrophobic Compounds for Energy Production. Energy Recovery from Waste: Technological and Environmental Issues, Division of Environmental Chemistry, American Chemical Society Meeting, April 7-11, New Orleans, Louisiana, USA
  38. Gadhamshetty, V\* (2013). Thriving in Early-career in Environmental Engineering. Finding and Thriving in an Academic Career in Chemistry, Division of Chemical Education, American Chemical Society Meeting, April 7-11, New Orleans, Louisiana, USA (Invited Presentation)
  39. Gadhamshetty, V\*, Ramaraja, P. Ramasamy, and Johnson, R. Glenn (2013). A stack of Shewanella-based microbial fuel cells to obtain 1.1 V DC power source. Bioenergy and Biofuels, Division of Energy and Fuels, American Chemical Society Meeting, April 7-11, New Orleans, Louisiana, USA
  40. Gadhamshetty, V\*, Krishnamurthy, A, and Koratkar, N (2013). Application of graphene to obtain anti-corrosion metal electrodes in microbial fuel cells. Nanomaterials and Nanotechnology for Energy and Fuels, Division of Energy and Fuels, American Chemical Society Meeting, April 7-11, New Orleans, Louisiana, USA
  41. Gadhamshetty, V\*, Johnson, D, Nirmalakhandan, N, and Smith, G (2013). Easy method for hydrogen production at pH below 4.0. Bioenergy and Biofuels, Division of Energy and Fuels, American Chemical Society Meeting, April 7-11, New Orleans, Louisiana, USA
  42. Gadhamshetty, V\*, Ramaraja, P. Ramasamy, and Johnson, R. Glenn (2013). A low temperature fuel cells stack for electricity production from organics. Bioenergy and Biofuels, Division of Energy and Fuels, SOLAR 2013 Conference, American Solar Energy Society April 17-19, 2013, Baltimore, Maryland, USA
  43. Gadhamshetty, V\*, Belanger, D, and Kilduff. C (2013). A low cost bioreactor module for simultaneous electricity production and treatment of food wastes. Bioenergy and Biofuels, Division of Energy and Fuels, SOLAR 2013 Conference, American Solar Energy Society April 17-19, 2013, Baltimore, Maryland, USA
  44. Gadhamshetty, V\*, Kilduff, J., Belanger, D., and Hynes, A (2013). A low-cost bioelectrochemical reactor for treatment of oxidized contaminants in drinking water. SOLAR 2013 Conference, American Solar Energy Society April 17-19, 2013, Baltimore, Maryland, USA
  45. Gadhamshetty, V\*, Belanger, D., and Hynes, A (2013). Brown algae as the electron donor for electricity production in microbial fuel cells. National SOLAR 2013 Conference, American Solar Energy Society April 7-19, 2013, Baltimore, Maryland, USA
  46. Gadhamshetty, V\*, and Gude, V.G (2013). Applications of Thermal Energy Storage in Power Plants and Desalination Systems. National SOLAR 2013 Conference, American Solar Energy

- Society April 7-19, 2013, Baltimore, Maryland, USA (Opening Remarks or Forum on Thermal Energy Storage)
47. Gadhamshetty, V\* (2013). Wastewater Treatment Infrastructure for energy production. National SOLAR 2013 Conference, American Solar Energy Society April 7-19, 2013, Baltimore, Maryland, USA (Opening Remarks for Forum on Sustainable water Infrastructure for bioenergy production)
  48. Gadhamshetty, V\*, Johnson, D.C., Khandan, N.N., Smith, G (2012). Low pH Microbial Fuel Cell Systems. International Bioenergy & Bioproducts Conference, Technical Association of Pulp and Paper Industry, Savannah, Georgia, USA Oct 17, 19, 2012
  49. Khandan, N.N, Gadhamshetty, V, Gude, V Thermal Energy Storage Systems for Utilizing Low-grade Waste Heat Sources The 3rd IEEE International Conference on Sustainable Energy Technologies (ICSET'12), 2012, 27 September Kathmandu, Nepal,
  50. Gadhamshetty, V., Ramaraja P.R., Sizemore, S., Biffinger J., Ringeisen B., and Johnson, G.R (2009). Gravity fed microbial fuel cells for electricity production. 238 ACS National meeting and Exposition, Aug 16-20, Washington, DC
  51. V., Ramaraja P.R., Sizemore, S., Biffinger J., Ringeisen B., and Johnson, G.R (2008). Gravity fed microbial fuel cells for energy conversion. AFRL/RXQ workshop, Airbase Divisions, Nov 12-14, Washington, DC
  52. Gadhamshetty, V., Johnson, C.D., Khandan, N.N., Smith, G., and Deng, S (2008). Improving feasibility of dark fermentation systems. Vth International Symposium on Anaerobic Digestion of Solid Wastes and Energy Crops Vth ISAD-SW&EC Hammamet, Tunisia, May 25 to 28, 2008
  53. Gadhamshetty, V., Johnson, C.D., Khandan, N.N., Smith, G., and Deng, S (2008) Adapting ADM1 model in biohydrogen studies. Vth International Symposium on Anaerobic Digestion of Solid Wastes and Energy Crops Vth ISAD-SW&EC, Hammamet, Tunisia, May 25 to 28.
  54. Gadhamshetty, V., Johnson, C.D., Khandan, N.N., Smith, G., and Deng, S (2008) Intermittent pressure release for enhanced biohydrogen production. Vth International Symposium on Anaerobic Digestion of Solid Wastes and Energy Crops, Vth ISAD-SW&EC, May 25 to 28, Hammamet, Tunisia,
  55. Gadhamshetty, V., Khandan, N.N (2007). Exergy analysis of Air-cooled Performance in combined Cycle Power Plants. In CD-ROM proceedings of International Conference on Thermal Engineering and Application, Amman, Jordan.
  56. Khandan, N.N, Gadhamshetty, V, Mummaneni, A. (2008) Improving Combined Cycle Power Plant Performance in Arid Regions. In CD-ROM proceedings of 6th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Pretoria, South Africa, 2008
  57. GB Smith, N. Khandan, Z. Samani, S. Deng, M. Macias-Corral, V. Gadhamshetty, D. Johnson, M. Myint, A. Fierro-Lopez and C. Arrigo (2007). La Produccion de Bioenergia (CH<sub>4</sub>, H<sub>2</sub>, e<sup>-</sup>) Usando Residuos Organicos. In Proceedings of Bioenergy, Mexico
  58. Gadhamshetty, V., Khandan, N.N., Ricketts, C., and Myint, M (2004). Water Conservation in Power Plants – Enhanced Air Cooled Condensers. Water Resources Research Institute Annual Water Conference, August, Socorro, NM.
  59. V., Khandan, N.N., and Ricketts, C (2005). Water Conservation in combined cycle Power Plants – A Simulation Approach. Graduate Research Arts & Symposium, April, Las Cruces, NM.
  60. Gadhamshetty, V., Johnson, C.D., Khandan, N.N., Smith, G., and Deng, S (2008). Temperature effects on H<sub>2</sub> production in unstirred low pH (LpH) fermentation system. (Short Platform Presentation) IWA World Water Congress and Exhibition, Sep 7-12, Vienna, Austria

61. Gadhamshetty, V., Johnson, C.D., Khandan, N.N., Smith, G., and Deng, S (2008). Critical aspects of fermentative hydrogen production with mixed cultures. (Short Platform Presentation) IWA World Water Congress and Exhibition, Sep 7-12, Vienna, Austria
  62. Perera, K.R.J, Ketheesan, B, Gadhamshetty, V, and Nirmalakhandan, N.(2009) “Biohydrogen Production from Cattle Manure”, presented at An International Perspective on Environmental and Water Resources Conference, January 5-7 Bangkok, Thailand.
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#### **POSTER PRESENTATIONS** (\* represents corresponding author)

1. Shrestha, N, Fogg, A, Wilder, J, Gadhamshetty V\* (2016). Defective Tomatoes (Culls) for electricity generation in Microbial Electrochemical Systems, 2016 Science Festival Poster Application, Sanford Research Center, June 11, Sioux Falls, South Dakota.
2. Chilkoor, K.G, Shrestha, N, Gadhamshetty, V\* (2015). Nano-scale Graphene as a Corrosion-resistant Coating under Emerging/Aggressive Conditions in the semi-arid upper Great Plains, National Science Foundation Food, Energy, Water (FEW) Nexus Workshop. A Sustainable rural framework workshop for the upper Great Plains, October 19-20, Rapid City, South Dakota
3. Shrestha, N, Chilkoor, K.G, Gadhamshetty, V\* (2015). Bio-electrochemical technologies for solving food-water-energy nexus challenges in upper great plain region- A case study on efficient wastewater reuse, National Science Foundation Food, Energy, Water (FEW) Nexus Workshop. A Sustainable rural framework workshop for the upper Great Plains, October 19-20, Rapid City, South Dakota
4. Gadhamshetty, V\* (2015). Corrosion resistance of nano-meter Graphene coatings in aggressive microbial environment, The Association of Environmental Engineering and Science Professors (AEESP) research and education conference, Yale university, New Haven, CT, USA
5. Gadhamshetty, V\*, Krishnamurthy, A, and Koratkar, N (2014). Beating the Bugs: Graphene and Polymer Coatings for Microbial Corrosion, Two Dimensional material for Energy and Fuel, Division of Energy and Fuels, 247th American Chemical Society National Meeting and Exposition, March 17, Dallas, Texas, USA (Sci-mix poster session)
6. Agapi, S, Franco, D, Fogg, A, and Gadhamshetty, V\*., Treating solid wastes for electricity production at ambient conditions, Florida-Georgia Louis Stokes Alliance for Minority Participation (FGLSAMP), Jacksonville, Florida, USA, February 03<sup>rd</sup>-15<sup>th</sup>, 2014.
7. Agapi, S, Franco, D, Fogg, A, and Gadhamshetty, V\*., A Fuel Cell turns garbage into power: Microbial Fuel Cell for treatment of Tomato Pomace, STEM Undergraduate Research and Internship Symposium, Whitaker Center for STEM Education, Florida Gulf Coast University, USA, December 07<sup>th</sup>, 2013.
8. Bokrand, C., Simmons, J., Behr, R., Gadhamshetty,V., The FGCU Renewable Energy Institute, Florida Gulf Coast University, at the Innovation Hub, Florida Energy Summit, Orlando, Florida, USA, October 14<sup>th</sup>-15<sup>th</sup>, 2013 (Organized a Booth at Bronze Level).
9. Belanger, D., Fischbach, K., Krishnamoorthy, A., Hynes, A., Kilduff, J\* and Gadhamshetty, V\*. Drinking Water Treatment powered by Microbes. A Fuel Cell Turns Poop into Electric Power (Microbial Fuel Cell Reactor Design for Drinking Water Treatment), 9<sup>th</sup> Annual EPA P3 competition, Washington, DC, April 2013 (A 2-day poster presentation for public)



10. Gadhamshetty, V\*, Willner, W., Hynes, A., and Nyman, M., Microbial Fuel Cells as a Tool for Education. *Undergraduate Research Posters, Division of Chemical Education, American Chemical Society Meeting*, April 7-11, 2013, New Orleans, Louisiana, USA
11. Gadhamshetty, V\*, Willner, W., Hynes, A., and Nyman, M., Bioremediation of Hydrophobic Compounds for Energy Production. *Energy Recovery from Waste: Technological and Environmental Issues, Division of Environmental Chemistry, American Chemical Society Meeting*, April 7-11, 2013, New Orleans, Louisiana, USA (Invited for Sci-mix poster session)
12. Gadhamshetty, V\*, Johnson, D, Nirmalakhandan, N, and Smith, G. Easy method for hydrogen production at pH below 4.0. *Bioenergy and Biofuels, Division of and Fuels, American Chemical Society Meeting*, April 7-11, 2013, New Orleans, Louisiana, USA (Invited for Sci-mix poster session)
13. Gadhamshetty, V\*, Belanger, D., Fischbach, K., and Kilduff, C., Bioelectrochemical reactor for energy production from food waste. *Energy Recovery from Waste: Technological and Environmental Issues, Division of Environmental Chemistry, American Chemical Society Meeting*, April 7-11, 2013, New Orleans, Louisiana, USA (Invited for Sci-mix poster session)
14. Gadhamshetty, V\*, Ramaraja, P. Ramasamy, and Johnson, R. Glenn. Improved utilization of the anode in a microbial fuel cell stack: *Shewanella oneidensis* as a model biocatalyst. *North American Meeting of the International Society for Microbial Electrochemistry and Technology*, Ithaca, New York, USA October 9-10, 2012
15. Belanger, D., Jeanne, C., Cummings, A., Hynes, A., Kilduff, C., and Gadhamshetty, V\*, Ramaraja, P. Ramasamy, and Johnson, R. Glenn. The brown algae as the electron donor in microbial fuel cells. *North American Meeting of the International Society for Microbial Electrochemistry and Technology*, Ithaca, New York, USA October 9-10, 2012
16. Gadhamshetty, V., Khandan, N.N., Maganti, A., Johnson, C.D., and Gude, V *Photobioreactor for Hydrogen Production from Cattle Manure. Poster presentation, EPA P3 competition, Washington, DC, May 2005*
17. Myint, M., Khandan, N.N., Deng, S., Gadhamshetty, V., and Smith, G. (2005). Bioelectricity productions from cattle manure using microbial fuel cells. *(Poster Presentation) IWA World Water Congress and Exhibition, Sep 7-12, 2008, Vienna, Austria.*

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#### **PROFESSIONAL LECTURES/ACADEMIC SEMINARS**

1. Gadhamshetty, V\*, Chilkoor, K.G, Shrestha, N, (2016). Nano-scale Coatings and Emerging Corrosion Problems, U.S Army Corps of Engineers, Omaha District, July 12, Omaha, NB, USA.
2. Invited Panelist, SD EPSCoR/SDBOR National Science Foundation CAREER Proposal Development Workshop, November 19<sup>th</sup>, 2015
3. What is the worth of organic waste in the changing world, Chemical and Biological Engineering, South Dakota School of Mines and Technology, Rapid City, SD, November 11<sup>th</sup>, 2014
4. Beneficial Bacterial Systems for production of biofuels and bioelectricity, College of Arts and Science Seminar Series, Florida Gulf Coast University, Fort Myers, Fl, October 18<sup>th</sup>, 2013
5. Recent Applications of Bioelectrochemical Systems, Civil, Environmental, and Construction Engineering, University of Central Florida, Tampa, Florida, February 10<sup>th</sup> 2013
6. Overview of Drinking Water Treatment Technologies, Civil and Environmental Engineering, California Polytechnic State University, Feb 10th 2012

7. *Application of Bioprocesses and bioelectrochemical processes for Bioenergy Production and Water Treatment*, Civil Engineering Department, Florida Gulf Coast University, Jan 31<sup>st</sup> 2012
  8. *Biological Processes for Sustainable Energy Production*, Chemical Engineering Department, Indian Institute of Technology, Hyderabad, August 30<sup>th</sup>, 2010
  9. *Bioprocesses for Biofuel Production*, Civil and Environmental Engineering Department, Indian Institute of Technology, Chennai, August 08<sup>th</sup>, 2010
  10. *Biological Processes for Sustainable Energy Production*, Civil and Environmental Engineering Department, Old Dominion University, March 2010
  11. *Biofilm Assisted Electricity Production in Microbial Fuel Cells*, AFRL RXQL Internal Meeting, February 02<sup>nd</sup> 2009
  12. *Biological Fuel Cells: Direct Conversion of chemical energy to electrical energy*, AFRL/RXQ workshop, Airbase Division, January 27<sup>th</sup>, 2008, Washington, DC
  13. *Gravity Fed Microbial Fuel Cell Operation for Electricity Production from Organic Wastes*, Civil Engineering Department, New Mexico State University, Las Cruces, NM, May 09<sup>th</sup> 2008
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## TEACHING

#	Course	Audience	Semester	Title	Institution	# Student	Raw Scores (5 pt scale)
1	ENVE 6230	Graduate & Undergraduate	Spring 2010	Mathematical modeling of Environmental Processes	Rensselaer Polytechnic Institute (RPI)	6	4.8
2	ENVE 6961	Graduate & Undergraduate	Spring 2011	Microbial Fuel Cells	RPI	6	4.8
3	ENGR 2050	Undergraduate	Spring 2010	Introduction to Engineering Design	RPI	28	4.7
4	ENVE4200	Undergraduate	Spring 2010	Solid and Hazardous Waste Management	RPI	15	4.2
5	ENVE 4350	Undergraduate	Fall 2011	Biological Processes in Environmental Engineering	RPI	13	-
6	ENVE 4150	Undergraduate	Fall 2011	Environmental Engineering Laboratory	RPI	13	-
7	ENVE 2110	Undergraduate	Spring 2011	Fundamentals of ENVE	RPI	140	3.73
8	ENVE 4240	Undergraduate	Fall 2012	Bench Scale Design	RPI	10	4.0
9	ENV 3006C	Undergraduate	Spring 2012	Fundamentals of Environmental Engineering	Florida Gulf Coast University (FGCU)	25	3.6
10	EGN 1041C	Undergraduate	Summer 2013	Computational Tools of Engineers	FGCU	28	4.2
11	ENV4351	Undergraduate	Fall 2013	Solid Waste	FGCU	14	3.9

				Engineering			
12	CWR 3210	Undergraduate	Fall 2013	Engineering Fluid Mechanics	FGCU	25	4.6
13	EGN 1006L	Undergraduate	Fall 2013	Introduction to Engineering Profession	FGCU	22	4.3
14	EGN 3343C	Undergraduate	Spring 2014	Thermodynamics	FGCU	25	4.4
15	IDS 3920	Undergraduate	Spring 2014	The University Colloquium: A Sustainable future	FGCU	25	4.9
16	CEE 489 (Co-Taught)	Undergraduate	Fall 2015	Senior Design Course for Civil Engineers	SDSM&T	9	4.1
17	CEE428 <u>(First time course at SDSMT)</u>	Undergraduate	Spring 2015	Oil and Gas Development, Environment	SDSM&T	12	4.1
18	CEE 326	Undergraduate	Spring 2016	Environmental Engineering I	SDSM&T	17	4.6
19	CEE 326 (Co-Taught)	Undergraduate	Fall 2016	Environmental Engineering I	SDSM&T	73	4.0
20	CEE 692	Graduate	Spring 2016	Microbial Fuel Cells	SDSM&T	3	NA
21	CEE 692	Graduate	Fall 2016	Advanced Wastewater Treatment	SDSM&T	7	NA

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### THESIS/DISSERTATION ADVISOR

#	Student Name	Role	Graduated Year	Project Title	Type
1	Matthew Wentland	Co-Advisor	2011	Kinetics of extra-cellular electron transfer capabilities in <i>Shewanella Oneidensis</i>	MS Project at Rensselaer Polytechnic Institute
2	Ajay Krishnamurthy	Co-Advisor	2014	Graphene coatings for microbial corrosion	PhD Dissertation at Rensselaer Polytechnic Institute
3	Namita Shreshta	Advisor	2017	Bioelectrochemical systems	PhD Dissertation at SD School of Mines and Technology (SDSM&T)
4	Govinda Rajan	Advisor	2018	Nano-scale graphene coatings for corrosion applications	PhD Dissertation at SDSM&T
5	Joseph Wilder	Advisor	2020	Wastewater reuse in power plants	PhD Dissertation at SDSM&T

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### DISSERTATION AND THESIS COMMITTEE MEMBER/ GRADUATE DIVISION REPRESENTATIVE

#	Student Name	Project Title	Dates
1	Aditi David (PhD, Chemical Engineering)	Extremophile treatment of solid wastes for biofuel production	Fall 2014-present
2	Vivek Agarwal (MS, Materials Engineering and Science)	Solvent Extraction for recovery of rare earth metals	Fall 2014-present
3	Vivek Agarwal (PhD, Materials Engineering and Science)	Solvent Extraction for recovery of rare earth metals	Fall 2016-present
4	Rajneesh Jaswal (PhD, Chemical Engineering)	Integrated hydrothermal processing of wood and plastic wastes for enhanced hydrogen generation and value added products	Fall 2014-present
5	Ryan Truax (MS, Civil and Environmental Engineering)	Surface complexation modeling of an in-situ uranium mine	Fall 2014-present
6	Rohit Sharma (PhD, Atmospheric and Environmental Science)	Accumulation of heavy metals and radio nuclides within reservoir bottom	Fall 2014-Present
7	Andrew Clift (PhD, Geology and Geological Engineering)	Integrated basin analysis	Fall 2014-Present
8	Rika Beck (MS, Chemical Engineering)	Properties of activated carbon nanofibers- Application of activated carbon nanofibers for water treatment	Spring 2015- Present
9	Kylie Berger (MS, Civil Engineering)	Toxic heavy metals in fly ash and fly ash derived geopolymers	Fall 2015- Present
10	T.H.Sukirtha (PhD, Environmental Sciences, Bharathiyar University, Coimbatore, India)	Bioremediation of Organophosphates and In-vitro production of biosurfactant, its characterization and the environmental applications using <i>Nocardia</i> Spp.	July 2013-Present ( <u>Member, Board of Examiners</u> )
11	Prashansa Shrestha (PhD, Civil and Environmental Engineering)	Life Cycle analysis and Modeling	Spring 2016-Present
12	Jennifer Galvin (MS, Material Engineering and Science)	Leaching of Monazite	Fall 2015 - Present
13	Kimberley De Boer (MS, Civil and Environmental Engineering)	Sustainability of wastewater treatment systems	Spring 2016 - Present
14	Claudia Isola (MS, Civil and Environmental Engineering)	Life Cycle analysis for Dakota Biocon	Fall 2015- Present

□ Faculty Advisor, Honorary Student Awards

1. **South Dakota Solid Waste Management Association Scholarship Award**, South Dakota Solid Waste Management Association, 2015 (Student: Namita Shrestha)

2. **Outstanding Graduate Student**, Civil & Environmental Engineering, South Dakota School of Mines & Technology, 2015 (Student: Namita Shrestha)
3. **J.V.N DORR (Dorroco) Fellowship**, South Dakota School of Mines and Technology, 2015 (Student: Namita Shrestha)
4. Engineers without Border Chapter selected as **Best New Organization of the Year**, Dean of Students Leadership and Involvement Awards, Florida Gulf Coast University, 2014
5. **LSAMP Fellowship**, Florida Gulf Coast University, 2014 (Student: Steven Agapi)
6. **Speaker at Junior Science and Humanities Symposia**, Airforce Research Laboratory, 2013 (Student: Wendy Willner)
7. **New York State Pollution Prevention Institute 2<sup>nd</sup> Annual Student Competition**, 2012 (Student: Derek Belanger)
8. **People, Prosperity, and Planet (P3) National award**, Environmental Protection Agency (2012) (Students: Derek Belanger, Anne Hynes, Ajay Krishnamoorthy, Brent Solina)
9. **Navy Award** for Outstanding projects in Engineering, Math and Technology in the Westchester Science and Engineering Fair (2012) (Student: Wendy Willner)
10. **Baker Fuel Cell Scholarship Award**, Honorable Mention, 2012 (Student: Derek Belanger)
11. **New York Business Competition**, 2010 (Student: Brent Solina)
12. **Sixth Annual Loyola University Business Competition**, Walmart Better Living Business Plan, 2011 (Student: Brent Solina)
13. **Macfarlane Prize**, Rensselaer Polytechnic Institute, spring 2012 (Participants -600 students)
14. Design Competition for students in Introduction to Engineering Design (IED) class of 330 students every semester, Rensselaer Polytechnic Institute  
1<sup>st</sup> Place, Mousetrap Car Design (Sp 2010); 1<sup>st</sup> Place, Ballista-Launcher Design (Sp. Spring 2011); 3<sup>rd</sup> Place, Mousetrap Car Design (Sp 2011); 1<sup>st</sup> place, Mousetrap Car Design (Fall 2011)  
3<sup>rd</sup> Place, Ballista-Launcher Design (Fall 2011), 3<sup>rd</sup> Place, Optical-light automatic Car (Fall 2011), 2<sup>nd</sup> Place, Ballistic Launcher; Second Place, 2<sup>nd</sup> Place Optical-light automatic Car, (Sp 2012)

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## LEADERSHIP

1. **Program Coordinator for Minor in Environmental Engineering**, Civil and Environmental Engineering Department, South Dakota School of Mines and Technology (2016-Present)
2. **Graduate Committee Chair**, Civil and Environmental Engineering Department, South Dakota School of Mines and Technology (2016-Present)
3. **University research committee representative** for Civil and Environmental Engineering Department, South Dakota School of Mines and Technology (2015-Present)
4. **Panelist**, NSF CAREER program, National Science Foundation (2015-2016)
5. **Chair for Environmental Session (ENVR) Session Chair, Division of Environmental Chemistry, American Chemical Society**, Next Generation Techniques for Prevention & Precise Growth of Biofilms at the Interface of Nanomaterials & Electrochemistry (Fall 2015)  
252nd American Chemical Society National Meeting & Exposition, Philadelphia, PA
6. **Committee Member**, National Science Foundation Food, Energy, Water (FEW) Nexus workshop. A sustainable rural framework workshop for the upper Great Plains, October 19-20, Rapid City, South Dakota School of Mines and Technology (2015)
7. **Alternate Faculty Senator**, Florida Gulf Coast University (2013-2014)

8. **Whitaker College of Engineering Representative**, Faculty Senate Committee for Institutional Affairs, Florida Gulf Coast University (2013-2014)
9. **Faculty Search Committee for two renewable energy engineering faculty positions**, Environmental and Civil Engineering, Florida Gulf Coast University (2014)
10. **Faculty Search Committee for a water resource engineering faculty position**, Civil and Environmental Engineering, South Dakota School of Mines and Technology (2015)
11. **Faculty Advisor**, Engineers without Borders Chapter, Florida Gulf Coast University (2013-2014)
12. **Faculty Mentor**, Florida-Georgia, Louis Stokes Alliance for Minority Participation (2013-2014)
13. **Editorial Member** of Scientific Committee, Avances Investigaci3n Ingenier3a, Colombian Journal (2013)
14. **Technical Editor**, International Journal of Architecture, Engineering, and Construction (2012-Present)
15. **Nominated as a Treasurer/Secretary**, Clean Energy and Water Division, American Solar Energy Society, United States, 2013
16. **Chair**, Forum on Sustainable Water Infrastructure for Bioenergy production, American Solar Energy Society, Baltimore, Maryland
17. **Moderator**, Forum on Prospects of Thermal Energy Storage, American Solar Energy Society, Baltimore, Maryland
18. **Chair**, Environmental Biotech for Industrial Wastes, 5<sup>th</sup> World Congress of Industrial Biotechnology, Xi'an, China, April 25-28, 2012

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#### **PROFESSIONAL AFFILIATIONS**

1. Member, American Academic of Environmental Engineers and Scientists (2013-Present)
2. Member, National Association of Corrosion Engineering (2014-Present)
3. Member, American Society of Plant Biology (2014)
4. Full Member, American Society of Civil Engineers (2011- Present)
5. Member, American Solar Energy Society (2013)
6. Member, Association of Environmental Engineering and Science Professors (2009-Present)
7. Member, American chemical society (ACS, 2009,2010,2013)
8. Member, American Water Works Association (2012)
9. Member, North American International Society for Microbial Electrochemistry (2012,13)
10. Alumni member, New Mexico State University, 2007-Present
11. Member, International Association of Hydrogen Energy, Young Division (2011- Present)

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#### **PROFESSIONAL SOCIETY AND SERVICES**

1. Proposal Reviewer, National Science Foundation Research Traineeship, National Science Foundation, (2015)
2. NSF CAREER Reviewer/Panelist, National Science Foundation, (2015)
3. Panelist and Rapporteur, EPA STAR Fellowship, Environmental Protection Agency, (2015)
4. Judge, Oral presentations in student research symposium, SD School of Mines & Technology, (2015)
5. Panelist, National Science Foundation Graduate research Fellowship Program, (2012)
6. Proposal Reviewer, Environmental Protection Agency STAR Program (2012)
7. Proposal reviewer, Sun grant Initiative for South Central Region (2009, 2011, 2012)

8. Proposal reviewer, National Research Foundation of South Africa (2009)
9. Reviewed for over 50 Scientific Journals
  - American Chemical Society (ACS) Nano; Environmental Technology Review; Sustainable Chemical Processes; Carbon; International Journal of Hydrogen Energy; Science of Total Environment; Environmental Science & Technology; Process biochemistry; Biotechnology Progress; Biotechnology & Bioengineering; Chemical Engineering; Energy & Fuels; Water Research; Biofuels; Journal of New Materials for Electrochemical Systems; International Journal of Molecular Sciences; Journal of Microbial & Biochemical Technologies; Bioresource Technology; Biomass & Bioenergy
10. Faculty Advisor, Briarcliff Manor Research Program, Briar Cliff High School, NY, 2010-2011
11. Technical Advisor, RPI Student Start-up Firm, Microrganic Technologies, New York, 2010-2011
12. Judge, NM-AMP National Undergraduate Research Conference, New Mexico State University, Las Cruces, NM, October 2005

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### FEATURED ARTICLES AND HIGHLIGHTS

1. **History Now**, Venkataramana Gadhamshetty Wants to Power Cities with Tomatoes, <http://www.history.com/shows/history-now/videos/venkataramana-gadhamshetty-wants-to-power-cities-with-tomatoes>
2. **Rapid City Journal**, Mines researchers getting hundreds of thousands in grant funds, [http://rapidcityjournal.com/news/local/mines-researchers-getting-hundreds-of-thousands-in-grant-funds/article\\_fb6dd3ff-841b-5d4e-9b38-a65f9febf8bc.html](http://rapidcityjournal.com/news/local/mines-researchers-getting-hundreds-of-thousands-in-grant-funds/article_fb6dd3ff-841b-5d4e-9b38-a65f9febf8bc.html)
3. **Rapid City Journal**, You say 'tomato,' scientist says, 'Source of electrical energy', [http://rapidcityjournal.com/news/local/you-say-tomato-scientist-says-source-of-electrical-energy/article\\_3f139e25-dced-5144-9732-2750d201978f.html](http://rapidcityjournal.com/news/local/you-say-tomato-scientist-says-source-of-electrical-energy/article_3f139e25-dced-5144-9732-2750d201978f.html)
4. PRweb, South Dakota Mines Awarded \$750,000 to Develop Power System for NASA Space Missions, <http://www.prweb.com/releases/2016/06/prweb13519834.htm>
5. **American Chemical Society**, You tube Video, Generating electricity with tomato waste, <https://www.youtube.com/watch?v=dxnV6FAWNLk>
6. **BBC World Service**, Newsday, Good for sauce or as a source of electricity? <http://www.bbc.co.uk/programmes/p03mzy0y>
7. **Prairie Business**, SD School of Mines to work on waste-to-energy project for NASA, <http://www.prairiebusinessmagazine.com/higher-education/4060909-sd-school-mines-work-waste-energy-project-nasa>
8. **KEVN Black Hills Fox**, School of Mines receives grant from NASA, <http://www.blackhillsfox.com/content/news/School-of-Mines-receives-grant-from-NASA-384204031.html> (TV Interview)
9. **CNN Money**, Your next alternative power source: Tomatoes <http://money.cnn.com/2016/03/16/technology/tomato-power/>
10. **The Christian Science Monitor**, Student scientists build battery prototype out of tomatoes? <http://www.csmonitor.com/Environment/2016/0317/Student-scientists-build-battery-prototype-out-of-tomatoes>
11. **Newsweek**, Turning Damaged Tomatoes Into Electricity Using Microbial Fuel Cells, <http://www.newsweek.com/damaged-tomatoes-create-electricity-within-microbial-fuel-cell-437595>
12. Award Gives Graphene Coating \$500k Lift [http://www.paintsquare.com/news/?fuseaction=view&id=12651&nl\\_versionid=582](http://www.paintsquare.com/news/?fuseaction=view&id=12651&nl_versionid=582)
13. **ASCEnews** <http://blogs.asce.org/national-science-foundation-honors-gadhamshetty-with-career-award/>

14. National Science Foundation Honors SD Mines' Gadhamshetty with CAREER Award  
<http://www.wkrg.com/story/27977951/national-science-foundation-honors-sd-mines-gadhamshetty-with-career-award>
15. National Science Foundation Honors SD Mines' Gadhamshetty with CAREER Award  
<http://www.prweb.com/releases/2015/01/prweb12482579.htm>
16. National Science Foundation Honors SD Mines' Gadhamshetty with CAREER Award  
<http://www.streetinsider.com/Press+Releases/National+Science+Foundation+Honors+SD+Mines+Gadhamshetty+with+CAREER+Award/10209536.html>
17. National Science Foundation Honors SD Mines' Gadhamshetty with CAREER Award  
<http://www.koamtv.com/story/27977951/national-science-foundation-honors-sd-mines-gadhamshetty-with-career-award>
18. **Las Cruces Sun News**, NMSU researchers take “waste not, want not” into the fields, (2006)
19. Dairy waste may be answer to affordable biohydrogen production” , NMSU college of Engineering, Review, (2006-2007) [http://engr.nmsu.edu/pdfs/engin\\_annreport\\_06\\_07.pdf](http://engr.nmsu.edu/pdfs/engin_annreport_06_07.pdf)
20. NMSU researches biohydrogen production, NMSU News Releases (2006)  
[http://www.nmsu.edu/~ucomm/Releases/2006/november/biohydrogen\\_research.htm](http://www.nmsu.edu/~ucomm/Releases/2006/november/biohydrogen_research.htm)
21. Researchers at New Mexico State University have published new data on energy research, Energy Research, 2008, [http://www.verticalnews.com/premium\\_newsletters/Energy-Weekly-News/2008-07-28/66137ER.html](http://www.verticalnews.com/premium_newsletters/Energy-Weekly-News/2008-07-28/66137ER.html)
22. Vertical news, Research conducted at United States Air Force has provided new information about energy research, Energy and Ecology Business, (2009)  
[http://www.verticalnews.com/premium\\_newsletters/Energy-and-Ecology-Business/2009-03-27/63138EEB.html](http://www.verticalnews.com/premium_newsletters/Energy-and-Ecology-Business/2009-03-27/63138EEB.html)
23. Data on energy research discussed by researchers at United States Air Force, Energy Research, [http://www.verticalnews.com/premium\\_newsletters/Energy-and-Ecology-Business/2009-03-27/63138EEB.html](http://www.verticalnews.com/premium_newsletters/Energy-and-Ecology-Business/2009-03-27/63138EEB.html)
24. Observation without Provocation: Using Electrochemical Impedance Spectroscopy to Understand Bacterial Respiration in Microbial Fuel Cells, Spotlight Article, Biotechnology and Bioengineering, 104, 5, 882, (2009) (Spotlight Article).
25. Researchers at New Mexico State University Target Inorganic Chemicals, News RX (March, 2011), <http://www.newsr.com/newsletters/Drug-Week/2011-03-25/16032520116237W.html>

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## **PROFESSIONAL MEETINGS AND WORKSHOPS**

1. National Science Foundation (NSF) Faculty Early Career Development (CAREER) Program workshop, Sioux Falls, SD, 2014.
2. NSF Food water energy Nexus Conference, Rapid City, SD, 2015
3. Workshop on Electrochemistry Measurements, Yeager Center for Electrochemistry, Cleveland, Ohio, June 2014
4. University Colloquium Training for Faculty, Florida Gulf Coast University, Nov 01<sup>st</sup> 2013
5. Meeting on Farm Bill, Ag & Markets headquarters, Albany, New York, July 20<sup>th</sup>, 2011
6. Second Annual Conference on Mighty Waters, Defining our Past and Directing our Future, New York's 21<sup>st</sup> Congressional District, Organized by Congressman Paul Tonko, Rensselaer Polytechnic Institute, Troy, NY, June 08<sup>th</sup>, 2011



7. NSF Workshop for Faculties by Centre for Sustainability Engineering: “Adding sustainability to Engineering Education”, Syracuse University, May 25-May 27, 2011
8. 11<sup>th</sup> Annual Colloquium on Teaching and Learning: “Social networking – The power of many”, Rensselaer Polytechnic Institute, May 23 – May 24, 2011
9. COMSOL Multiphysics modeling workshop, Rensselaer Polytechnic Institute, Troy, NY June 10<sup>th</sup>, 2010
10. COMSOL Multiphysics modeling workshop, Rensselaer Polytechnic Institute, Troy, NY June 10<sup>th</sup>, 2009
11. Advanced modeling features in COMSOL Multiphysics, Orlando, FL, March 01<sup>st</sup> 03<sup>rd</sup>, 2009
12. Publish and Flourish, Teaching Academy, New Mexico State University, January 01- June 01, 2006
13. Anaerobic treatment of high-strength industrial wastes, September 14-15, 2005, Marquette University

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## **TRAINING**

- Ektron Aloha Editor, University relations, South Dakota School of Mines and Technology, Aug 2015
  - Search/screen training for faculties participating in faculty search process, 2014, South Dakota School of Mines and Technology
  - Maximizing MW Output through the latest in Biofilm Control in Cooling System, Certificate of completion, Ashland, Organized by Power, June 03, 2014
  - Gabi Software, PE International Inc, 2012, 2013
  - Biosafety and Laboratory Safety, Rensselaer Polytechnic Institute, 2011
  - Environmental, Safety, and Occupational health Training, Tyndall Air Force Base, 2008
  - Laboratory safety training, New Mexico State University, 2005
  - Graduate retention and achievement students program (GRASP) program for faculty development, New Mexico Space Grant Consortium, 2003-2005
-