

Publications

Books

1. Lucena, J. C., Schneider, J, and Leydens, J. A. (in review, forthcoming in 2010), *Engineering and Sustainable Community Development*, Under contract with Morgan & Claypool Publishers.
2. Mitcham, C. and Munoz, D.R., (in review, forthcoming in 2010), *Humanitarian Engineering*, Under contract with Morgan & Claypool Publishers.

Book Chapters

1. Mitcham, C., Juan Lucena, and Suzanne Moon, *Humanitarian Science and Engineering*. In Mitcham, C. (ed) *Encyclopedia of Science, Technology, and Ethics*, MacMillan, 2005.
2. Skokan, Catherine, Munoz, David, and Gosink, J., *Humanitarian Engineering Projects in Multidisciplinary Senior Design*, Chapter 39 in *World Innovations 2006*, World Innovations in Engineering Education and Research, INEER , ISBN 1553-9911, 2006.
3. Skokan, Catherine, Simoes, M., and Crocker, J., *Designing Humanitarian Engineering Classes*: Chapter 7 in *Innovations 2007: World Innovations in Engineering Education and Research*, INEER, ISBN 1553-9911, 2007.
4. Leydens, J. A. & Lucena, J. C., *Knowledge valuation in humanitarian engineering education*. In: *Engineering in Context*, Hyldgaard Christensen, Meganck & Delahousse (Eds.), Denmark: Academica, 2009.
5. Mitcham, C. and Munoz, D.R., *Humanitarian Context*, In: *Engineering in Context*, Hyldgaard Christensen, Meganck & Delahousse (Eds.), Denmark: Academica, 2009.
6. Skokan, C. K., Crocker, J., and Baughman, G., *Introduction of Energy Courses into Native American Tribal Colleges*: Chapter 30, *Innovations in Engineering Education and Research*, INEER, 2009.
7. Munoz, D. and Skokan, C., *Observations in Leadership and Motivation in Senior Design*: Chapter 5 in *Innovations in Engineering Education and Research*, INEER, 2009.

Journal Articles

1. Bauer, E. H., Moskal, B., Gosink, J., Lucena, J., Muñoz, D., *Faculty and student attitudes toward community service: A comparative analysis*, *Journal of Engineering Education*, 96 (2), pp. 129 -140, 2007.
2. Moskal, B., Lucena, J. & Gosink, J. *Campus impact of a service learning curriculum*, *Academic Exchange Quarterly*, Special Edition on Service Learning, 11 (3) , 2007.
3. Muñoz, D. and Skokan, C., *Humanitarian engineering programme: Conceptual Challenges*, *World Transactions on Engineering and Technology Education*, Vol. 6, No. 2, pp. 253-256, 2007.
4. Moskal, Barbara M., Skokan, Catherine, Muñoz, David and Gosink, Joan, *Humanitarian Engineering: Global Impacts and Sustainability of the Curricular Effort*, *Int. J. Engng. Ed.*, Vol.24, No.1, pp.162-174, 2008.

5. Moskal, B., Skokan, C., Kosbar, L., and Fairweather, G., *The Synergy of Middle School Outreach*, Academic Exchange Quarterly, Volume 12, No. 2, p.49-54, 2008.
6. Jackson, J. and Skokan, C., 2009, Geophysical Groundwater Investigation: Makondo, Uganda, Intl. J. Service Learning Engineering., accepted for publication.

Conference Proceedings

1. Bauer, E., Moskal, B., Gosink, J., Lucena, J., and Muñoz, D., 2005, *Understanding Student Attitudes with respect to Service Learning*, Proceedings of the American Society for Engineering Education, Portland, Oregon, (June 2005).
2. Bauer, E., Moskal, B., Gosink, J., Lucena, J., and Muñoz, D., 2005, *Attitudes toward Service Learning in Engineering*, Proceedings of the Frontiers in Education Conference, Indianapolis, Indiana, (Oct. 2005).
3. Bauer, E., Moskal, B., Gosink, J., Lucena, J., and Muñoz, D., *Understanding Student and Faculty Attitudes With Respect to Service Learning: Lessons from the Humanitarian Engineering Program*, ASEE/AaeE Global Colloquium on Engineering Education, Sydney, Australia, September 26-30, 2005.
4. Bauer, E., *The Humanitarian Engineering Program at the Colorado School of Mines*, poster presentation at Engineers for a Sustainable World Conference, Austin, TX, October 6-9, 2005.
5. Leydens, J.A. and Lucena, J.C., *The Problem of Knowledge in Incorporating Humanitarian Ethics in Engineering Education: Barriers and Opportunities*, Proceedings of the Frontiers in Education Conference, sponsored by the American Society for Engineering Education, the Institute of Electrical and Electronics Engineers (IEEE), and the IEEE Computer Society. San Diego, CA, , pp. T2H24-29, October, 2006.
6. Moskal, Barbara, Gosink, J., and Skokan, C., *Humanitarian Engineering Curriculum: Defining Student Learning Outcomes*, ASEE, Honolulu, Hawaii, 2007.
7. Musimbi, O., Moskal, B., Munoz, D., *Changes in Student Attitudes with Respect to Service Learning: A Response to a Curricular Intervention*, Proceedings of the Annual Conference of the American Society for Engineering Education, Pittsburgh, PA, 2008.
8. Skokan, C. K., and Gosink, J., 2005, *Gender Participation in Humanitarian versus Traditional Multidisciplinary Senior Design Projects*, American Society for Engineering Education Conference, Portland, Oregon, June 12-15, 2005.
9. Skokan, C. K., Muñoz, D., and Gosink, J., 2005, *Humanitarian Projects in Interdisciplinary Engineering Senior Design*, International Conference on Engineering Education, Gainesville, Gliwice, Poland, July 25-29, 2005.
10. Skokan, Catherine, 2005, *Senegal -- Irrigation and Water Quality Project*, Symposium on Application of Geophysics to Engineering and Environmental Problems, Atlanta, Georgia, April 3 - 6, 2005.

11. Skokan, Catherine, Marcelo Simoes, and Joseph Crocker, *Designing Humanitarian Engineering Classes*, presentation at the 9th International Conference on Engineering Education, Session T1A, San Juan, Puerto Rico, July, 2006.
12. Skokan, Catherine, 2005, *Senegal -- Irrigation and Water Quality Project*, Symposium on Application of Geophysics to Engineering and Environmental Problems, Atlanta, Georgia, April 3 - 6, 2005.
13. Skokan, C, Simoes, M, and Crocker, J., *Designing Humanitarian Engineering Classes*, ICEE, Puerto Rico, 2006.
14. Skokan, C, and Rodriguez, P., 2006, *Assessment of a Coordinated Effort to Increase Student Learning in Mathematics and Science through Engineering Examples*, ASEE, Chicago, Illinois, REPRESENTED AND REPUBLISHED ASEE 5th International Colloquium on Engineering Education, Rio de Janeiro, October 9-12, 2006.
15. Skokan, C, and Munoz, D., *A Groundwater Study in Colinas de Suiza, Villanueva, Honduras*, SAGEEP conference, Seattle, Washington, 2006.
16. Moskal, Barbara, Gosink, J., and Skokan, C., *Humanitarian Engineering Curriculum: Defining Student Learning Outcomes*, ASEE, Honolulu, Hawaii, 2007.
17. Skokan, C., Moskal, B., and Barker, H., 2007, *Technology Camp for Teachers – Bringing Multidisciplinary Engineering into the Middle School Classroom*, ASEE, Honolulu, Hawaii, REPRESENTED (by B. Olds) AND REPUBLISHED ASEE 6th International Colloquium on Engineering Education, Istanbul, Turkey (October 1-4, 2007).
18. Skokan, C. and Munoz, D., *Humanitarian Engineering Program – Challenges in the Execution of Remote Projects*, ICEE Annual Conference, Coimbra Portugal, 2007.
19. Skokan, C., and Boadu, F., 2008, *Humanitarian Geophysics*, SAGEEP, Philadelphia, PA, April, 2007.
20. Savage, J. and Munoz, D., *In Search of Sustainable Community Development through Practice; Application: Colinas de Suiza, Honduras*, ICEE, Pecs, Hungary, July, 2008.
21. Skokan, C. 2008, *Gulkana Alaska: Multidisciplinary Experience in Recreational Vehicle Park Design*, ICEE, Hungary, July, 2008.
22. Leydens, J. A. & Lucena, J. C., *Listening as a missing dimension in engineering education: Implications for sustainable community development efforts*, Special Issue on Professional Communication in Humanitarian Environments, /IEEE Transactions on Professional Communication 52/(4), 359-376, 2009.
23. Schneider, J, Lucena, J.C., and Leydens, J.A., *Engineering to help: The value of critique in engineering service*, IEEE Technology and Society Magazine 28/(4), 42-48, 2009.
24. Munakata-Marr, J., Leydens, J. A., and Moskal, B. M. (2009). Beyond technical issues: A case-study approach to introducing environmental engineering students to nontechnical wastewater engineering constraints. /Proceedings of the Frontiers in Education Conference/, San Antonio, TX, T1App. 1-5.
25. Baker, D., Merrill, J. and Munoz, D., *Community Development and Engineering: Perspectives on Interdisciplinary Projects in Honduras*, paper submitted for panel discussion at ASEE Conference, Louisville, KY, 2010.

Posters

1. Skokan, C., Munoz, D, and Gosink, J., *Humanitarian Engineering: Problems and Potential Solution*), NAE Conference on Service Learning, Washington, DC, May, 2006.
2. Skokan, C. and Musimbi, O., *Humanitarian Engineering: Global Impacts of a Curriculum Effort*, Conference on Service Learning, San Diego, CA, May, 2007.
3. Jackson, J., Bratrsovsky, A., Descognets, R., Uhlemann, G., McClure, K., Wolfram, P. Munoz, D. and Skokan, C., *Groundwater Exploration in Uganda*, NSF, GK-12 Annual Conference, Washington, DC, Feb. 2008.

Non-Peer reviewed articles

1. Skokan, C. K., Senegal – *Irrigation and Water Quality Project*, Fast Times, EEGS, Vol. 9, No. 3, 2004.
2. Skokan, C. K., 2007, SAGEEP2007: Our 20th: FastTimes, Vol. 12, No. 2.
3. Jackson, J. M. and Skokan, C. K., 2008, Humanitarian Geophysics: FastTimes, Vol. 13, No. 4.

Presentations

1. Allred, James, and Silva, Deborah (Senior Design students), *Potable Water System Design for Colinas de Suiza Honduras* (in Spanish), presentation to a gathering of the villagers of Colinas de Suiza, Honduras, October, 2005.
2. Bauer, E., *Conejos County Water Quality Study*, University of Montana, Bozeman, MT, November 30, 2004.
3. Bauer, E., *Honduras Water and Wastewater Project*, University of Montana, Bozeman, MT, November 30, 2004.
4. Bauer, E., *Examples of Humanitarian Engineering Student Projects at Colorado School of Mines*, presentation to Maury Albertson, Golden, CO, May 2, 2005.
5. Bauer, E. and Lucena, J., *Techno-politics in a Wastewater Project at the Colorado School of Mines for Katmandu, Nepal: A Case Study*, presented at Engineers for a Sustainable World Conference, Austin, TX, October 6-9, 2005.
6. Hoban, Michael and Rodriguez, Sheila, (CSM Senior Design student and UNITEC alumna), *Eco-toilet Design for Colinas de Suiza Honduras* (in Spanish), presentation to the five volunteer families who plan to implement the eco-toilet into the home and garden, Colinas de Suiza, Honduras, December, 2007.
7. Gosink, J. and Muñoz, D., *Humanitarian Engineering*, Division of Engineering at Colorado School of Mines, presentation to Maury Albertson, Golden, CO, May 2, 2005.

8. Leydens, J., *Sustainability through Serendipity: Writing Proposals with, for, and about the Community*, an invited presentation from one of the Conference Organizing Committee Members; at the Conference on Teaching Sustainability through Service-Learning, hosted by Colorado State University, Fort Collins, CO on September 28, 2007.
9. Leydens, J., *Role and Identity Transformations in Writing that Matters: When Students Connect Civic and Personal Meanings*, presented at the Conference on College Composition and Communication in New York, NY on March 24, 2007.
10. Leydens, J., *The Problem of Knowledge in Incorporating Humanitarian Ethics in Engineering Education: Barriers and Opportunities*, co-presented with Juan C. Lucena at the Frontiers in Education Conference, San Diego, CA, October 31, 2006.
11. Muñoz, D. and Burczyk, R., *Sustainability Education through Interdisciplinary Senior Design*, presented at the 2005 ASME Congress and Exposition, Orlando, FL, Nov. 2005.
12. Muñoz, D., Nine presentations made (in Spanish) to small groups of villagers located uniformly throughout Colinas de Suiza to explain the details of the imminent project and request their ideas and concerns for the project and gain an understanding of the baseline for community development assessment in later years , August, 2007.
13. Shores, Matthew, (Senior Design student), *Location and Laying of the Tubing* (in Spanish), presentation to a gathering of the villagers of Colinas de Suiza, Honduras, June, 2007.

The following four presentations were delivered to CSM students and faculty, primarily for recruitment purposes. The first three involved several seniors who described their humanitarian engineering design projects.

1. Bauer, E., *Humanitarian Engineering*, presented to Nature and Human Values, December 6, 2004.
2. Bauer, E., *Humanitarian Engineering*, presented to Nature and Human Values, April 4 and 5, 2005.
3. Bauer, E., *Humanitarian Engineering*, presented to Nature and Human Values, November 14 and 15, 2005.

Invited Presentations

1. Bauer, E. and Wagner, N., *Colorado School of Mines Humanitarian Engineering Program*, Human Rights Awareness Day, Cherry Creek High School, Greenwood Village, CO, December 9, 2005.
2. Muñoz, D., Invited talk, Denver Chapter of Women in Mining on February 22, 2006.
3. Muñoz, D., Invited talk, *Humanitarian Engineering, Leadership and Motivation* (in Spanish), for ASME Student Conference at Universidad Simon Bolivar, Caracas, Venezuela, June, 2006.
4. Muñoz, D., Invited talk, *Building a Humanitarian Engineering Program*, 2006 ASEE 5th International Colloquium on Engineering Education, Rio de Janeiro, October, 2006.
5. Muñoz, D., Invited talk, *Sustainability and Sustainable Development*, Regional Conference, Engineers Without Borders, Lafayette College, PA, February, 2007.

6. Muñoz, D., Invited talk, *Humanitarian Engineering*, Rotary International, Denver World Services Committee, March, 2007.
7. Muñoz, D., Presentation to the Town Council of Villanueva Honduras (in Spanish) to explain the plan and budget for the water project for Colinas de Suiza, June, 2007.
8. Muñoz, D., Invited talk, CSM EPICS Faculty Brown Bag lunch, *Humanitarian Engineering and Sustainable Development*, September, 2007.
9. Muñoz, D., Invited talk, *Sustainability and Sustainable Development*, Conference on Teaching Sustainability through Service-Learning, hosted by Colorado State University, Fort Collins, CO on September, 2007.
10. Muñoz, D., Invited talk, *Sustainability and Sustainable Development*, Western Region Engineers Without Borders Conference, NAU, Flagstaff, AZ, October, 2007.
11. Muñoz, D., Invited talk, *Sustainability and Sustainable Development*, Colorado Chapter Society of Automotive Engineers, November, 2007.
12. Muñoz, D., Invited talk, *Sustainability and Sustainable Development*, Denver Chapter, Engineers Without Borders, DU Campus, Denver, CO, December, 2007.
13. Muñoz, D., Invited talk, *Sustainability and Sustainable Development*, Office of International Affairs, Ohio State University, January, 2008.
14. Muñoz, D., Invited talk, *Humanitarian Engineering at CSM*, Honduras Service Learning Course, Ohio State University, January, 2008.
15. Muñoz, D., Invited talk, *Educating the Engineer in Sustainable Community Development through Practice; Application: Colinas de Suiza, Honduras*, Engineering Solutions to Health Problems session, Global Health Symposium, CU Denver, October, 2008.
16. Muñoz, D., *Educating the Engineer in Sustainable Community Development through Practice; Application: Colinas de Suiza, Honduras*, American Geophysical Union (AGU) Conference, San Francisco, December, 2008.
17. Muñoz, D., *Educating the Engineer in Sustainable Community Development through Practice; Application: Colinas de Suiza, Honduras*, Golden Rotary Club, February, 2009.
18. Muñoz, D., Invited talk, *Educating the Engineer in Sustainable Community Development through Practice; Application: Colinas de Suiza, Honduras*, Valparaiso University, March, 2009.
19. Muñoz, D., Invited talk, *Educating the Engineer in Sustainable Community Development through Practice; Application: Colinas de Suiza, Honduras*, Portland State University, May, 2009.
20. Muñoz, D., Invited talk, *Educating the Engineer in Sustainable Community Development through Practice; Application: Colinas de Suiza, Honduras*, K-12 Teacher Presentation, July, 2009.
21. Muñoz, D., Invited talk, *Educating the Engineer in Sustainable Community Development through Practice; Application: Colinas de Suiza, Honduras*, ARCS Board, CSM Campus, October, 2009.
22. Muñoz, D., Invited talk, *Educating the Engineer in Sustainable Community Development through Practice; Application: Colinas de Suiza, Honduras*, University Hills Rotary Club, Denver, CO, October, 2009.

23. Muñoz, D., Invited talk, *On Seeking Ownership; Challenges for the Humanitarian Engineer*, EWB Regional Conference, Northern Arizona University, Flagstaff, AZ, October, 2009.
24. Muñoz, D., Invited talk, *Water Project for Chasnigua, Honduras*, Presented to the Geoscientists without Borders Governing Board, 2009 SEG Meeting, Houston, TX, October, 2009.
25. Muñoz, D., Invited talk, *Humanitarian Engineering at CSM*, North Middle School Honors Class, Denver, CO, November, 2009.
26. Skokan, C., Gosink, J., Schmitz, P., Wagner, L., and Wylie, S., University of Montana, Bozeman, MT, November 30, 2004.
27. Skokan, C., “Humanitarian Engineering at the Colorado School of Mines” given at the Easwari Engineering College, Chennai, India, November, 2009.