As our fall semester came to an end and students took a short break from classes, we wanted to thank all of our supporters and the South Dakota School of Mines and Technology for their efforts. Engineers and Scientists Abroad had an eventful first year and we hope to keep the experience a tradition at Mines.

ESA’s groundbreaking year was definitely a learning experience and a successful one to say the least. Within our first year members of ESA visited two countries, Chile and Suriname, and began establishing relations nationally and internationally.

We also hope that everyone had happy holidays and safe travels to your celebration destinations.

With the new year arrival, Engineers and Scientists Abroad is planning on having another successful year and we hope that you can be apart of it.

Thanks again.
- ESA Officers and members

HAPPY NEW YEAR AND THANK YOU FROM ESA

SOUTH DAKOTA SCHOOL OF MINES & TECHNOLOGY

SHORT-TAKE

Engineers and Scientists Abroad (ESA) is a student organization that formed in December of 2006. This organization was formed to give students a unique opportunity to use their professional skills in an international, real-world atmosphere for a humanitarian cause.

Throughout the year, ESA holds weekly meetings to keep members up-to-date about projects and establish priorities. However, ESA does not operate through students alone. Several faculty members at SDSM&T, community members, and businesses offer their time and assistance.

As ESA members seek to complete projects, phases of the project are defined and developed by working in groups. These groups working together also help each other to finalize ideas and concerns.

In order to give back to our important communities, ESA educates the public on their experiences abroad and holds several events throughout the year to update supporters on how young adults are helping change the world for the better.
This past summer, nine School of Mines students and their faculty advisor were fortunate enough to take an amazing trip to Chile, South America. All are members of a group called Engineers and Scientists Abroad. They traveled on behalf of a non-profit organization called Vocations for Orphans (VFO). VFO is starting to build a vocational school in the Andes Mountains for orphans to learn a trade after leaving the orphanage, prior to getting out in the ‘real world’. The project is in its early stages, and ESA’s participation was initially to supply an energy source to the buildings and plot the site. Since traveling to the Chile however, they are also taking on water treatment and concrete quality.

Samples of the water and concrete were taken, wind speeds were monitored and almost the entire site was surveyed. The time remaining outside of testing and research was devoted to helping with the construction of the buildings. At some point during our stay the group labeled themselves “Team Shovel”. Because there’s limited funding and the location is so remote, shovels were used rather than heavy machinery. (Though the few days a backhoe was present were extremely helpful!) ESA travelers would come in each evening with black socks, stained T-shirts and tired smiles. ESA was able to visit an orphanage in a small town called Vicuna before heading up into the Andes. It’s a fun experience to communicate with children who speak a different language than you. The spirit of these children was refreshing to see given their condition. The members of ESA learned more from these children then could ever be explained in a classroom. Things are put into perspective and the team was reminded of how they’re needed and why they were there.

There’s something so unique and so special in taking a trip with a group of peers to put your education to use in such a structural, applicable way. The ongoing work ESA is doing truly does better its members and communities in need. How privileged they are to have to opportunity to be involved in such a global group on their small South Dakota campus.

Chile Plans for 2008

Since traveling to Chile, ESA has been busy defining the projects that are priorities at the Vicuña site. The original survey points taken in May 2007 have been projected into a computer program, plans are in the works for designing a sand washing unit for mixing stronger concrete, and a senior design team is working on building a power storage unit that could be used at the remote site.

It is the goal of the organization to start implementing these designs on ESA’s return trip to Chile in May 2008. The return trip will also include more surveying and water studies to determine quality and assess purification techniques.

If you are interested in supporting this trip, your donations will help with design materials for the sand washing unit and the cost of helping students use their professional skills abroad.
The humidity poured over me like a heavy shower as I stepped off the 738 onto the tarmac at 3:00 AM. This was certainly the most unique Thanksgiving I have experienced. Forty five hours after departing from Rapid City, I had finally arrived in Suriname to find potential projects with ESA faculty advisor Dr. M.R. Hansen. Being my first time overseas, I didn’t know what to expect from LTC Tracy Settle of the South Dakota National Guard and Director of the State Partnership Program. I had been anticipating this trip for a month, but I still had no idea what a college student from South Dakota could accomplish in this country.

There wasn’t much time to think though. Tracy Settle set up a great schedule, packed with meetings and tours. The next day we were up and touring the city. I even got a chance to examine a potential project on the first day. The Wi Contren facility is similar to a YMCA. The gymnasium and soccer field had fallen into disrepair, but with some work and good engineering the facility can be renovated and become a safe center for youth in the Paramaribo area.

Dr. Hansen and I attended meetings regarding engineering and science related projects. Many of these would be excellent options for a group such as ESA. These projects would involve us both in the city and in the interior jungle, and our members would be able to work with a very diverse group of people, such as NGOs, Amerindians, and the U.S. Embassy. We were warmly welcomed by everyone we met.

I was also able to give a presentation to the university and meet with the facility and students. They were all very interested in both the ESA program and the South Dakota School of Mines and Technology. I hope that our students can work with students and professors in Suriname to make our projects more effective and enhance both the technical and cultural learning experience for both parties.

I left Suriname with a feeling of accomplishment. With many connections established, I think there is a strong potential for ESA to work with the Surinamese people on projects that will benefit both parties. But this trip was only the beginning. There is still much work ahead. I am confident that both parties see the opportunities that lie before us, and I hope that we can make the best of those opportunities together.
With many opportunities arising for ESA in the past year, one of the high notes for this fall semester has been meeting with the United States ambassador to Suriname and the United Nations ambassador to Iraq.

During the week of November 5th-9th, several ESA members were invited to attend workshops and presentations held at the Holiday Inn in Rapid City. This event was organized by Lt. Col. Tracy Settle of the South Dakota National Guard who is also overseeing the State Partnership Program with Suriname. While a committee of delegates and ambassadors from Suriname were in Rapid City, ESA members met with U.S. Ambassador Lisa Schreiber Hughes and other senior officials from Suriname. Also attending the event were distinguished military members, state politicians, and area entrepreneurs.

On Tuesday, November 6th, the keynote speaker was Dr. Mark Plotkin of the Amazon Conservation Team (ACT) who also met with ESA to discuss environmental impacts in the Suriname region. Dr. Plotkin, an ethnobotanist, has been working in the jungle with the indigenous people of Suriname since the early 1980’s. His goal and the goal of ACT is to conserve the biodiversity of the rainforest by maintaining the cultures of different tribes. Specifically, Dr. Plotkin works with shamans to record plants and treatments for medicinal purpose. So far, Dr. Plotkin has had great success building trust among the tribal communities and conserving tribal practices.

As the week came to a close, ESA was able to establish ties with U.S. Ambassador Schreiber Hughes who was all ready knowledgeable about ESA prior to being introduced. When asked about the meeting, ESA President Andrew Muxen said, “I was very impressed that our organization was known on a global scale.” Ambassador Schreiber Hughes noted that she was looking forward to meeting with ESA representatives again in late November when Andrew Muxen and faculty advisor Dr. M.R. Hansen travel to Suriname on an exploratory trip.

In addition to meeting with the Suriname committee, the officers of ESA were invited to a formal luncheon and presentation with the U.N. Ambassador to Iraq Dr. Hamid Al-Bayati. This October 25th event was held on the SDSMT campus and included distinguished school administrators, military, political, and community representatives.

Below L to R: SDSMT President Dr. Charles Ruch, ESA President Andrew Muxen, ESA Secretary/PR Director Eric Hoffnagle, U.N. Ambassador Dr. Hamid Al-Bayati, ESA Vice-President/Projects Director Teneil Ryno, and Mr. Bill Tucker.

Above: ESA members with Ambassador and Suriname Assistant

Left, L to R: U.S. Embassy Commercial Assistant Judith Dijks, Austin Burk, Ashley Stewart, Andrew Muxen, U.S. Ambassador Lisa Schreiber Hughes, Barb Hansen, Katie Aurand, Dr. M.R. Hansen
**COMMUNITY OUTREACH AND EVENTS**

One of ESA’s defined goals is to give back to their domestic community. During each semester, students members are speaking with hundreds of people throughout Rapid City.

In the upcoming months, ESA is preparing to host an exotic dinner featuring authentic entrées from both Chile and Suriname. This event will be held Thursday, March 13th at Rapid City’s Chop House and will have presentations by ESA members about their experiences abroad and other special guests from the area. At this event, ESA has planned to raffle off two solar-cookers which the organization built in November as part of a group exercise.

In addition, ESA is asked frequently to talk to students on the SDSM&T campus about studying abroad. With ESA’s efforts, we are helping young engineers and scientists excel and grow into exceptional adults who will be challenged by the world of tomorrow.

**SUPPORT**

Your support and contributions to ESA directly effect how our world can become more sustainable. With each dollar, practical applications are spread across the globe to ensure a better life for those who are in need. ESA’s humanitarian work is backed by great leaders in engineering and science from SDSM&T and you can help keep this new tradition and experience on the cutting edge. If you are interested in donating, you may mail your donation to our school address, donate through our website, or contact us for more information.

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* All donations are tax deductible through our 501(c)(3) foundation account.
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