FIG Young Surveyors Report

1st Young Surveyors Americas Regional Meeting

FIG Working Week 2023 – Orlando, Florida, USA
Thanks to everyone who attended the 1st FIG Young Surveyors Americas Regional Meeting (#1YSAMM) and the FIG Working Week 2023 in Orlando, Florida, USA.

The theme of the Young Surveyors Meeting was “Moving Beyond Boundaries,” which connected with the Working Week theme of “Protecting Our World, Conquering New Frontiers.” Speakers from around the world were featured, discussing topics relating to sustainability, the future of the profession, diversity & inclusion, and more.

The first day featured mostly lecture-style talks, while the second day was much more interactive with more engagement from the audience. Late on the first day, we hosted a charity event where we played Bingo! A night of bowling social activities followed, which improved the interaction on the second day of the meeting. The Young Surveyors also hosted several sessions throughout the Working Week. Overall, the entire week was very successful!
On 27-28 May 2023, the 1st FIG Young Surveyors Americas Regional Meeting (#1YSAMM) was held at the Citrus/Collier/Columbia Room at the Signia by Hilton Orlando Bonnet Creek Convention Center in Orlando, Florida, USA. The main theme of the conference was "Moving Beyond Boundaries." In previous years, the FIG Young Surveyors North American and South American Networks had hosted several independent meetings. This time, since it was the first FIG Working Week in all of the Americas in over 20 years, we worked together on a Young Surveyors event.

The #1YSAMM brought together over 100 young surveyors from more than 20 countries with different cultures, traditions, languages, and experiences. The FIG Young Surveyors Network and the NSPS Young Surveyors Network in the U.S. jointly organized the meeting with support from FIG, FIG Foundation, Trimble, Leica Geosystems, Geomax, Berntsen, and Ripro Japan.
The meeting kicked off with an opening ceremony with welcoming remarks by:

- Winnie Shiu, FIG Vice President
- Tim Burch, NSPS Executive Director
- John Hohol, FIG Foundation President
- Shirley Chapunza & Jacob Heck, FIG Young Surveyors Network
- Nick DiGruttolo & Justin Thomas, Florida Society of Surveying & Mapping
Dr. Craig Hill of Leica presented Sustainability “More than Green”, where he discussed how he started his career with the green colored Wild T2, and now Leica is “going green” with pre-owned equipment and a recycling passport for end of life equipment. Leica uses cloud technology to help collaboration between the support team and the users. Leica also developed collision avoidance technology that workers can wear to help everyone and including equipment to know and avoid any dangerous situations. Saving our Planet is the biggest business opportunity.
Bryn Fosburgh of Trimble presented Next Generation Technology, giving a history of technology and showing where it is leading us into the future. It used to be the government that was leading in technology, now the private sector does. Trimble is utilizing robotics to assist the shortage of workers in the geospatial industry. This utilizes mixed reality and augmented reality to help construction workers visualize a site to identify problems, as well as robotics to improve productivity and safety. Trimble is integrating non-geospatial technology into the geospatial world. Bryn explained that artificial intelligence is just another tool, just like the internet is.
Simon Ironside presented Mapping the Plastics, focusing on FIG Working Group 4.3, which is a joint Initiative of FIG Young Surveyors Network and FIG Commission 4 (Hydrography). The global plastic pandemic is a huge issue, where 75% of all plastic is now waste and by 2050 there will be more plastic by weight in the ocean than fish. The average person ingests 5 grams of micro plastics each week. 10 Rivers contribute to 90% of the plastic that flows into the ocean. The group developed a deep learning algorithm to identify plastic that is floating in water systems. They had to manually delineate and classify the different types of plastics in order for the algorithm to read orthometric photos of the water.
As we began the coffee break, FIG President Diane Dumashie joined us to forgive some inspiring words about how important the young surveyors are to FIG. The chairs of each of the commissions also joined us to introduce themselves and the work that the each commission does. During the break, we all got some fresh air and took a group photo together to commemorate the event.
KonGeoS (Germany Young Surveyors Network)
This group represents 22 Young Surveyors Student Councils across Germany, Austria, and Switzerland. This network works directly with universities and their geospatial programs, hosting semester meetings and working groups.

Puerto Rico - Regional Updates
The Surveying is for Everyone (APTO) Student Chapter was created in 1938 as part of the professional college of surveying and engineering. They are planning an international event in March 2024. Of the 360 licensed surveyors in Puerto Rico, only 9 are women.

Romania Young Surveyors Updates: (Youth Commission)
Young Surveyors in Romania host an annual conference. They have private companies sponsor individual participants to attend the meetings. Their goal is to keep people into surveying since they have a lot of competition. They also host a Mapathon Event.
Diversity, Equity, and Inclusion

Nigel Sellars of RICS gave an overview of the FIG Diversity Equity and Inclusion Task Force. Surveying is a people's profession. Listening is essential. RICS helps develop standards to ensure safety and develop company cultures. Be a champion of diversity, equity and inclusion. Responsibility of leaders to embrace and strengthen their skills to not allow Race and Ageism to play a role in their decisions. Be curious, ask questions, find out what your strengths are, and spread the word to promote surveying.

Ali Gonzalez of the University of Florida spoke about - A Journey from Mining to Geomatics. His presentation was in English and Spanish. Originally from Cuba, Ali received a Masters of Engineering Mining. He took a job to help the environment, inspecting quarries and worked on mapping caves. Ali did not know that from mapping caves that he was going to learn about land surveying. He left Cuba and moved to Tampa, first taking a job at McDonalds before eventually becoming a surveyor and working at several positions within Florida. He is now an instructor at the University of Florida and working towards his Ph.D. His advice: Keep your eyes open and listen. Don’t be afraid of change! Be appreciative of the opportunities you are given. Try to learn from everything you do. Find something you're passionate about and do it!

The FIG Foundation Grant winners also spoke during this session.
FIG Foundation Grant winners

The FIG Foundation supported four Young Surveyors for their attendance at the Meeting and Working Week:

Angel Collado Murillo from Spain is a Professor and is working on combining genealogy with geospatial data.

Hilda Steen from Sweden is studying for her Master’s Degree in Engineering, Surveying, and Land Management at Lund University in Sweden, although she is currently at Queen’s University in Canada.

Darion David Mahadeo from Trinidad is studying for his Ph.D. in Artificial Intelligence in mapping.

Angela Omamuyovwi Anyakora from Nigeria was unable to attend, but is currently working with GFSH Consult and specializes in using remote sensing and GIS technologies to acquire data in Africa.

Milani Tharuka from Sri Lanka received a previous Foundation grant, but was unable to travel for an FIG event until this year.
Tim Burch of NSPS called the numbers and led the fun time that raised money for the Volunteer Community Surveyor Program and the FIG Foundation.

Trimble sponsored the event.
Roshni Sharma gave a prerecorded video presentation about VCSP and some of its recent work, including Wisdom Workshops, E-Volunteering, Knowledge Portal - all the information to be available to share, as well as in-country deployments to help secure land tenure.

Roshni also discussed the **FIG Climate Compass Task Force** - Climate change is the single greatest challenge humankind faces. FIG created this task force to engage more of the surveyors about climate change.

We were left with these challenge questions for discussion:

- **What do young surveyors need most for career development after COVID?**
- **What humanitarian surveying opportunities will be the most meaningful for young surveyors?**
What is GIS?

The last session of the first day focused on GIS. Esri’s Brent Jones and Katherine Smyth gave an overview of GIS and a hands-on demonstration of how to work with it.

**Brent Jones**
GIS is software that takes raw data and converts them spatially. Storymaps allow you to visualize stories and a timeline of connected events. Parcel Fabric uses a model to integrate physical and legal data, taking good survey data and warping the old GIS database around it. Esri is creating software to read and plot deeds. Land value is directly correlated to a country’s GDP.

**Africa GeoPortal - Katherine Smyth**
Integrate GIS portals between countries. Land administration is crucial to the success of a developing country. The Living Atlas is a repository of free information from Esri that allows anyone in the world to access. One map template which allows you to quickly create datasets.
Leica sponsored the offsite dinner and bowling social event at Splitsville at Disney Springs. The young surveyors had a fun time getting to know each other in an informal setting.
Day 2: Developing and Engaging with the Next Generation

This session was a panel discussion with Trent Keenan, Michelle Biclavs, Craig Hill, Tim Murphy, and Dr. Youssef Kaddoura

Part 1 focused on outreach and how to market the career field. Even with technology making work unmanned, there still needs to be someone there to watch what is going on. Even though there is a new digital twin, we still need boots on the ground to create those digital twins. Surveyors should be charging money (and good money!) for their expertise. A lot of good surveyors exist, but not a lot of good business surveyors exist. We need to do better with how we pay our staff and create money for their companies and need to understand strategy, marketing, estimating, etc. Licensed surveyors are needed because only some certified by the government should come out and tell you what you own. Get Kids Into Survey has many good marketing materials - Posters, Comics, Brand Ambassadors, Franchisees, and even Minecraft.

Part 2 focused on Workforce Development and the importance of continuing education through schooling and conferences. Other training programs for those not with an education background was also discussed.
Future of the Young Surveyors Network

FIG YSN Vice Chair Shirley Chapunza led the discussion about where the network should go during the next two years.

Highlights of the FIG YSN Plans include
- Volunteer Community Surveyor Program
- Development and the FIG Mentoring Program
- Meetings and Networking event

Some ideas that were discussed include the need to develop a landing point besides social media where young surveyors can participate and be active in the FIG YSN. There was also some discussion on what age defines a young surveyor. Ghana changed the age of a young surveyor from 35 to 40. Other ideas were more aimed at bringing awareness to the general public, such as creating a Day in the life of the surveyors network video and developing a Young Surveyors network elevator pitch.
Shirley and Jacob closed out the meeting with inspirational words for the young surveyors to carry with them back home.

The meeting was followed by a free afternoon, where some of the Young Surveyors went to the pool before the Working Week Opening Ceremony.
Young Surveyor Sessions throughout the week

- TS02A: FIG Mentoring Program
- TS03A: The Future of the Young Surveyors Network
- TS07A: Designing FFP Land Tenure Recordation Tools: VCSP In-Country Deployment in Sierra Leone
- TS08A: Land Tenure Reform System for Mars
- Keynote by Mickey Ng Nok Hang in the plenary on Smarter Working in Digital Transformation
Surveyor Sudoku competition sponsored by GeoMax
An effort this big requires the hard work of many volunteers. Special thanks goes to the FIG planning team: Shirley Chapunza, Ferah Köksal, Claire Buxton, and Roshni Sharma; and the local planning team: Ben Allen, Jacob Heck, Jordyn Hjeldness, Heather Keenan, Nolan Mark, Katherine O’Buckley, Melissa Padilla, Nicole Rodriguez-Bonilla, Marcus Schmitt, and Alysen Tierney
For more information, you can follow FIG Young Surveyors on Facebook, LinkedIn, and Twitter.
This event was successful because of the sponsors. A HUGE thank you to Leica for sponsoring the social event and dinner at Splitsville, and to Trimble for their platinum-level sponsorship. Silver-level sponsors were Ripro Japan, GeoMax, and Berntsen. In addition, this event was supported by the FIG Foundation.
Thank You!