#### DARION MAHADEO (TRINIDAD AND TOBAGO) FIG FOUNDATION YOUNG SURVEYOR GRANT RECIPIENT EXPERIENCE ATTENDING FIG WORKING WEEK 2023 ORLANDO, FLORIDA

## FIG Foundation Young Surveyor Grant Recipient to attend the FIG Working Week 2023 in Orlando, Florida

"Having attended the FIG Young Surveyors Conference and the FIG Working Week 2023 changed my life. I was at the lowest point of my life mentally, and was about to give up, but these events fueled back my flame of hope and provided motivation – thanks to Almighty God for these blessings through this opportunity. This was indeed the best experience of my life, and now I am working hard to fulfil my dreams of becoming a Licensed Surveyor, Professor, and Geospatial Consultant. I thank the FIG and the FIG Foundation for really considering me for this grant award – I am forever grateful for this opportunity, and I pledge to work together to make the world a sustainable and better place".

- Darion David Mahadeo

#### This is the story of Darion's FIG 2023 experience:

#### Background on Darion

Darion David Mahadeo is 27 years old and resides on a Caribbean island called Trinidad. Darion is a full-time PhD in Surveying and Land Information Candidate at the Department of Geomatics Engineering and Land Management, the University of the West Indies (Trinidad and Tobago), where he was awarded a Scholarship to accomplish his studies. He also holds an MSc. Geoinformatics (With Distinction) and BSc. Geomatics (With Honors) from the same institution. Darion is also a student member of the Institute of Surveyors of Trinidad and Tobago (ISTT), membership number st073. Both institutions mentioned are FIG academic member (AC-40085), and FIG member association (MA-10085), respectively.



# **Photo:** Darion David Mahadeo at the FIG Working Week 2023, General Assembly.

He has over 9 years of professional and academic experience in the Geomatics and Geoinformatics fields. He is an experienced practitioner and educator in field surveying, GIS, and Remote Sensing. His current research involves integrating artificial intelligence and image processing techniques to develop feature extraction models that would assist in dealing with the urbanization issues faced by Caribbean Small Island Developing States.

In his spare time, he enjoys doing charitable work within his field of expertise, and livestock farming for food security and sustainable practices. His passion lies within the geospatial field and is very motivated to help make the world a better place.

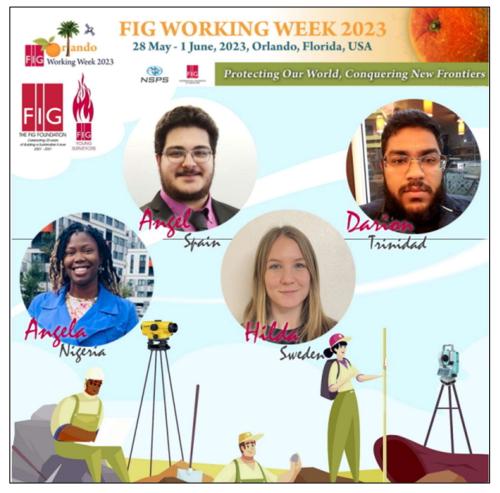


Photo: The FIG Foundation Young Surveyor Grant Recipients 2023.

#### Feedback from the FIG Foundation Grant Award - Grand Announcement

In November 2022, after seeing the FIG Working Week 2023 'Call for Abstract' advertisement, which was shared to me by my PhD Chief Supervisor Dr. Raid Al-Tahir, I decided, "*this is where I would like preliminary results from my research be showcased and published*". We then worked together and developed a paper, entitled, Artificial Intelligence Techniques for Extracting Impervious Surface Areas from Satellite Imagery (PubID: 12090) and submitted for acceptance.

I have never travelled outside of my country before, and I decided that FIG Working Week 2023 was the place to be – my fear of heights, being on a plane, and being in a new country was all gone. A great passion and flame within me burnt and knew this was the place that I needed to be. I spoke to my family, and they were very happy with the decision. My dad was ecstatic, because he was a surveyor's assistant and seeing me (his son) excel in the surveying field made him very proud. He was the main motivation for me to enter this field.

Currently, being on a full-time scholarship indicates little finance (student budget), as one cannot be employed, therefore, the finance to attend and participate in the FIG Working Week 2023 was a great concern. However, I started saving up and also prayed to God seeking assistance in the matter. During my breaks after my daily research activities, I focused all my efforts on planning for FIG Working Week 2023 and stumbled across the FIG Foundation Grants on FIG's website. There was one specifically entitled, **"FIG Foundation Grant for 4th FIG Young Surveyors North American Meeting and FIG Working Week 2023**" – this was exactly what I was praying for. I then applied and responded honestly and truthfully to my application. This was February 2023.

In March 2023, I started getting messages from close family and friends indicating congratulations on my award. It was then I saw that I was one of the four grant winners of the FIG Foundation Grants to attend and participate. My heart skipped a beat! After a few tears of joy in a corner (because I do not cry in front of others), I thanked

God for this blessing and then shared it with my family, friends, and university members. The FIG Office contacted me immediately to arrange the necessary and organized in preparations for Orlando, Florida. I was then scheduled to arrive at the venue, the Signia by Hilton, Orlando Florida on the 26<sup>th of</sup> May 2023. Both conferences was dated 27<sup>th</sup> May to 1<sup>st</sup> June 2023. I was extremely excited and then began preparing.

#### Arrival and Venue

On 7<sup>th</sup> May 2023, just a few weeks before my flight date, my dad died, and time stopped! Being the only male member remaining in my household and only son, I was in charge of police investigation, hospital visits, mortuary paperwork, and wake and funeral arrangements. My FIG dream came to an end at that point, I asked God for strength and the next ten days was rough, but it was essential. After my dad's funeral and cremation, I then remembered FIG and how important it was for me and my family, especially my late dad.

Instead of cancelling my arrangements, I decided to place all my bereavement aside and go to the FIG. My mental health was not 100%, but I was determined. I boarded the plane, conquered my fears of heights, leaving my country, and started to speak to many people on the flights. This made me feel very good! Enjoying the experience of the sight of the clouds, the islands along the Caribbean Sea and seeing new things at the airports made me very happy.



**Photos:** Views from the plane.

I arrived at the Signia by Hilton hotel on the 26<sup>th</sup> of May 2023 at 1:30 am, where the kind staff showed me to my room. The ambience of the venue and the hospitality provided was beyond this world! I loved my room; I loved the hotel and love the people in America. The best was the view of the pools and resort outside my window. Since I arrived a day earlier, I was eager to be awake early to view the conference venue. After registration and collection of the conference goodie bag, I then explored the hotel, venue, and made new friends.



Photos: Hotel and some Conference Venue area.

#### Registration

Meeting many people from the FIG was quite heart-warming. At the registration area there were also volunteers and members of the US National Society of Professional Surveyors (NSPS), of many cultures and backgrounds. Everyone had a smile and spoke so kindly and well. I met folks from the FIG Office who were very vital in arranging my travel, stay and participation – namely, Ms. Maria Bargholz and Ms. Claudia Stormoen Pedersen. They were both so nice and are definitely gems in the FIG Office. I also met the members of FIG's Young Surveyors Network (YSN) and fellow grant awardees.



*Photo:* Darion Mahadeo in front of the FIG Working Week 2023 Welcome Sign. FIG Young Surveyors Network Conference – 1<sup>st</sup> Americas Regional Meeting: 27<sup>th</sup> – 28<sup>th</sup> May 2023 Day 1: 27<sup>th</sup> May 2023

Every minute of this event was exciting – never a dull moment! Minutes before the start of the day, 'meet and greet' happened, and everyone seemed like they knew one another, I have never seen this much love among surveyors before. I was confused, but I just blended in because I liked it. At the time of the conference, everyone assembled, and we were already all friends. These young folks in the room were roughly around 75-90 people in total, and all had enthusiasm and eagerness to learn.

Kickstarted was the opening ceremony where we had very energetic and fun speakers like the Dr. Diane Dumashie (FIG President), Tim Burch (NSPS Executive Director), John Hohol (FIG Foundation President), Shirley Chapunza and Jacob Heck (FIG Young Surveyors Network), Nick DiGruttolo and Justin Thomas (FSMS Board Representatives). The entire room was filled with undivided attention, and seeing these folks presented gave us 'young surveyors' motivation and extra passion to survey.

An informative, session of Leveraging technology to 'Move beyond boundaries' was done by keynote speakers from industry like Craig Hill from Leica Geosystems who spoke on sustainability, Bryn Fosburgh of Trimble Inc. who focused on leveraging technology, and Simon Ironside who is Chair of FIG Working Group 4.3 who informed us on the applications of leveraging technology to map plastics in the sea to help stop pollution. This was getting more and more interesting.

Coffee breaks and a group photo provided a little stretch of legs and extra energy. And of course, to meet new people and have fun. Hearing presentations and views of other regional young surveyor networks across the globe was insightful and inspiring. We heard from the German Young Surveyors, the Romanian Young Surveyors, and updates from the US territory Puerto Rico.



Photo: FIG Young Surveyors Network Conference – 1st Americas Regional Meeting Group Photo.

The featured session of Diversity, Equality and Inclusion which is one of the biggest goal alignments of the FIG, was then highlighted where we heard from the FIG's Diversity Task Force, and a Journey of Mining Engineering and then towards Geomatics. Finally, the session concluded with hearing from the FIG Foundation Grant Award Winners: me (from Trinidad), Hilda Steen (Sweden), Angel Collado (Spain), unfortunately Angela Anyakora (Nigeria) could not join us. It was there in my presentation, I had to swallow all my sadness and deliver my talk and mention my Dad who was my main motivation – thankfully, I had everyone's love and support. And an enjoyable lunch afterwards formed fellowship, networks, and relations.



*Photos:* Left- delivering my FIG Foundation Grant Winner Presentation at the YSN Conference 2023. Right-My certificate from the FIG Foundation Grant Award 2023.



*Photos:* Left- FIG Foundation Grant Winners 2023. Right- Photo with Darion (left) and Mr. John Hohol (right).

A thrilling afternoon began when Trimble Inc. sponsored a charity event for BINGO, where proceeds goes towards FIG YSN's. Trimble also provided a cool t-shirt and prizes for the winners of the BINGO draws. This was the first time I played BINGO, and I enjoyed it. Other icebreakers and games were played to win other prizes. Concluding the afternoon, was presentations from Roshni Sharma (Chair Volunteer Community Surveyor Program – VCSP) highlighting VCSP initiatives, and ESRI's Brent Jones and Katherine Smyth on educating us about GIS. The day was wrapped-up with a talk from a sponsor GeoMax on their offers and their Working Week 2023 competition.



Photo: Icebreakers game during the Trimble Sponsored BINGO game charity event – having fun!

An enjoyable, fun, and relaxed evening was experienced through the Dinner/ Social Event - Splitsville - Bowling and American Fare, which was sponsored by Leica Geosystems. I learnt how to bowl for the first time, met new friends from all over the world, and loved the American culture.



*Photos:* Left – My first ever bowling game and throw. Right – picture of my bowling team members.

#### Day 2: 28th May 2023

This early Sunday morning began with presentations dealing with developing and engaging the next generation, where I discovered that there were many organizations that I can assist in to share knowledge of surveying and encourage others. My favorite was the Get Kids into Survey (GKiS) because I love kids and love to teach – this encouraged me to become a GKiS Brand Ambassador, in which I am the first of my country of Trinidad. Other empowering speeches came from Consulting Surveyor Michelle Blicavs (Australia) where she showed us the business of surveying and the market. Craig Hill from Leica Geosystems spoke to us more on the technology side of things and how we can easily integrate it for the younger generations to digest and better appreciate.

Closing this session was the workforce development, and we also got to see the Commission Chairs of the FIG Working Groups.



**Photos:** Left- Presentation on Get Kids into Survey (GKiS). Right- how can you get involved. As a body, the YSN was addressed by Shirley Chapunza (Vice Chair of FIG YSN), who lit up the room with her tremendous outlook of the FIG YSN and highlighted activities that encourages growth and development. Her talk empowered everyone (young and seasoned) to go out and do continuous work to better the geospatial industry. Wrap-up and more fellowship occurred, and everyone assembled later towards the General assembly to kickstart the opening of the FIG Working Week 2023.



*Photo:* Closing remarks – follow the FIG YSN on Social Media through many platforms.

### FIG Working Week 2023: 28th May – 1st June 2023

At first glance, this conference turned into a grand assembly, where the hundreds turned into thousands of people. Different cultures, different greetings, different smiles, different attires, all sharing one passion – to

survey! I loved it! This general assembly and opening ceremony was beyond my expectations. The love, the respect, the community, the purpose, and shared goals among this large group of like-minded individuals. The most amazing part was that for a second, I envisioned in my mind that we will establish the United Nations Sustainable Development Goals (SDGs) together.

The first day of the general assembly, we heard from the FIG President and the workplan for the next three years (2023-2026). Other FIG business was also presented such as the accounts, and various task forces aligned with the FIG's goals. Other stuff include hearing from the commissions and working groups on moving forward. Here 'young' and 'seasoned' surveyors met and spoke as colleagues, friends, and advice was handed down and even handed up. Everyone was humble and took the time to interact and communicate with each other.



Photo: Start of the FIG Working Week 2023 General Assembly and Opening Ceremony

This exciting working week was filled with activities that benefited me, where it provided valuable insights. I also shared views on all things Geomatics and GIS, where productive discussions were carried out and it was a learning experience for all. Informative Small Island Developing States (SIDS) sessions were conducted, and many technical sessions were carried out, and even hands-on labs. Presentations were made by peers (including myself - **#12090**) and catching up with our individual commissions and working group. Meeting with partners of industries in the exhibition hall and having demonstrations were astonishing.



Photo: Darion David Mahadeo's paper presentation being presented (#12090).



**Photo:** Presenters and Members of the FIG Commission 3: Spatial Information Management. L-R: Anna Shnaidman – Rapporteur (Israel), Darion David Mahadeo (Trinidad), Sagi Dalyot – Chair FIG Commission 3 (Israel), Markus Schaffert (Germany), and Hartmut Mueller (Germany).

Digital transformation, and Artificial Intelligence (AI) technology was shown on surveying and other geospatial applications. Other sessions include those of the GNSS, Geodesy, Surveying Standards and Practices, Land Administration, LiDAR and UAVs, point clouds, hydrography, and cadastral mapping. The history of Project X (Disney World) was also displayed and spoken about, since we were at Walt Disney World and the environs area. And even Memorial Day was also observed. There is also FIG Cinema where you can stop by and relax and take in a few short video clips or two – had me cracking up laughing!

Socialization and networking was a main thing at the working week 2023, where I managed to meet many folks of different cultural backgrounds and passions. We managed to share views, experience, discussion over food, and jokes with each other. Opportunities were also offered in some instances. Bonds were created and invitations given. Not to mention, the food catered for at the event was incredibly delicious, and the dessert was very nice.



Photos: Some of the Food provided during the FIG Working Week 2023.



*Photo:* FIG Working Week 2023 Dinner: American Evening at Mango's Tropical Cafe Orlando. L-R: Angel Collado (Spain), Darion Mahadeo (Trinidad), and Hilda Steen (Sweden).

Speaking of food, on two occasions the FIG Foundation Grant Awardees dined with Foundation Executive Members (at lunch at the Aquamarine outdoor dining cafe, and at the Working Week Dinner: American Evening – Mango's Tropical Cafe Orlando), where we spoke about the future, advice was given to us, productive discussion were conducted, and it was fun. At Mango's Tropical Cafe Orlando, we had a lot of fun, with food, drinks, dessert and entertainment (singing and dancing).

My most memorable part was acquiring cherished advice from Mr. John Hohol (FIG Foundation President Emeritus), Mr. Bryn Fosburgh (incoming FIG Foundation President), and Mr. William Marbell (FIG Foundation Director). One key player in the FIG Foundation is Cromwell Manaloto who happens to be an FIG Foundation Young Surveyor Grant Application Organizer – special thanks to him for his many years of service!



**Photo:** FIG Foundation Grant Awardees Lunch with FIG Foundation Executives. L-R: John Hohol (FIG Foundation President Emeritus), Bryn Fosburgh (Incoming FIG Foundation President), and FIG Foundation Grant Winners: Milani Tharuka (Sri Lanka), Hilda Steen (Sweden), Angel Collado (Spain), Darion David Mahadeo (Trinidad and Tobago). Photo Credit: Mr. William Marbell (Representing Trimble - FIG Foundation Charter Partner).



*Photo:* L-R: Darion Mahadeo, Cromwell Manaloto (FIG Foundation Young Surveyor Grant Application Organizer), Hilda Steen, and Angel Collado.

Overall, everything planned and executed in the working week were in perfect alignment to assisting to establish the 2030 UNs SDGs. The closing ceremony was grand and here the governance of the FIG was seen more than ever. The FIG Foundation Grant Winners 2023 got the opportunity to speak indicating their work and what do they want to become in life later on. I even got the opportunity to meet FIG President Dr. Diane Dumashie and FIG Director Ms. Louise Friis-Hansen. The collaboration witnessed, the corporation, and the governing authority was remarkable – which truly reflects a good International Federation. The working week 2023 has concluded. My only problem was that time flew by so fast, and it was time to go home – missing everyone made me sad! Special goodbyes! But all good things must come to an end.



Photo: Thanking Everyone for Attending the FIG Working Week 2023.



*Photo:* I met FIG Executives, L-R: Ms. Louise Friis-Hansen (FIG Director), Mr. John Hohol (FIG Foundation President Emeritus), Dr. Diane Dumashie (FIG President), and Darion David Mahadeo (FIG Foundation Grant Winner 2023).

#### Special Thanks and Concluding Remarks

This opportunity and experience provided me with many valuable insights academically, professionally and even touched my heart personally. I found myself as a person and it is clear now of what my career path is. I got to present and speak on three different occasions, networked, build connections and even relationships. FIG provided me with a family of belonging and in this community we all share similar goals – to make the world a better place. For me, the best thing from this FIG experience was making new friends, and even friends who are now family.

Thank You God! Thank you, FIG and FIG Foundation! Thanks to everyone who I met at the conference – you all are awesome! The FIG family made my experience wonderful. I now have reasons to find my true purpose and calling – I found myself!

I am still very new to the FIG, however I can assure anyone that it is indeed a place to be, to learn, to grow, to share experience and knowledge, and to always be a part of. I support the FIG and its objectives, and I intend on doing more and being more actively involved in FIG in the near future (after my studies). I aim to work with FIG, FIG YSN, and even contribute towards my Commission 3 if I get the opportunity to do so. Please feel free to check out the FIG website: <u>https://fig.net/index.asp</u>

In relation to both themes, we as Young Surveyors are definitely "moving beyond boundaries" because we are the future of the surveying and geospatial profession, and in doing so, we must do this sustainably. We should always do good and utilize our skills and technologies to "protect our world and conquer new frontiers". Love and peace to all!

I say to each and every one: "let's always move beyond boundaries and conquer new frontiers!"

With great anticipation, I am hoping to see everyone from the FIG family again at the next Working Week 2024, in Accra Ghana. I hope I can be there with you all!



*Photo:* Darion Mahadeo (center at the back), surrounded by my Ghanaian brothers and sisters at the FIG Working Week 2024, Accra, Ghana booth – I am promoting the FIG 2024 for the next year.

Anyone wishing to contact Darion, can do so via email, or WhatsApp. You can also connect with him on LinkedIn.



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/ Darion David Mahadeo – 14<sup>th</sup> July 2023.

**Trinidad and Tobago**