

NEWSLETTER

IAF Launchpad Mentorship Programme

APRIL 2022, N°01







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Welcome to the IAF mentorship programme!

COHORT 2022

The IAF Launchpad Mentorship Programme was developed with the young aerospace professional in mind. We wanted to provide our workforce, whether just entering into the workforce or making a significant career change, the tools needed to achieve their goals. One of those tools is access to a mentor someone who has been there and done that. Someone who can guide you based on their own personal experiences.

The IAF's mentorship programme is unique in that as a participant in this programme, you have access to some of the greatest minds in aerospace across the globe while simultaneously gaining insight into the IAF framework itself. So take this opportunity and run with it! We hope that you enjoy these next few months!



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Welcome Greetings from launchpad committee!

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Dear 2022 Mentees and Mentors!

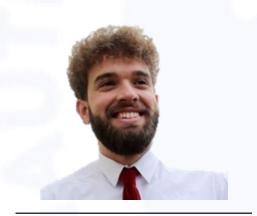
As Chair of the IAF Launchpad Mentorship Programme, I am thrilled to start another exciting year of the programme! My goal with developing this programme for the last two years is to create bonds that can last an entire career and to help you, the mentees, continue your professional growth. I know how much having a mentor in my corner has shaped who I am today and through this programme, I hope to facilitate similar relationships among you all.

We want to see you succeed! So be prepared for some professional development and networking type virtual workshops over the next few months. We will do our best to arrange in person meet-ups at various IAF events throughout the year. So stay tuned and reach out should you have any questions at all!



Dr. Elizabeth Barrios

IAF Launchpad Mentorship Programme Chair



Davide Petrillo

IAF Vice President for Education and
Workforce Development

Dear Mentors and Mentees,

Welcome to the IAF Launchpad Mentorship Programme! As new elected IAF Vice-President for Education and Workforce Development I am very glad to seeing this excellent platform as an opportunity to mentor you so as to allow you success during your experience within the IAF Launchpad Mentorship Programme and to provide for you a mentor who can be a resource as you acculturate to learn, grow and have fun. We are glad to have you join our community!

To those of you who will be serving in the role of mentor this year, we thank you for your commitment of time, expertise, and energy. Your role of help and support will serve to orient our mentees as well as the Federation into our community by sharing expertise and knowledge so as to allow them to experience a successful year.

This Programme was developed to help both mentors and mentees in their journey together this year. The IAF Launchpad Mentorship Programme team will be guiding much of your work to ensure communication and responses are helpful, consistent, and thorough. Never hesitate to contact your mentor or our team as questions or concerns arise during the year.

We wish you the best during your adventure!

Dr. Kathryn Robison • USA



Launchpad: What is your current role and where do you call home?

Kathryn: I am currently a project officer, lecturer, and podcaster. Sydney, Australia is where I live, though I am from Raleigh, NC in the United States.

L: How long have you been working for the space industry and what inspired you to work in this industry?

K: I am currently not in an industry role, aside from my regular contributions to the Talking Space podcast, though I have been researching space for about seven years and have volunteered for various organizations such as the IAF, SGAC, and the Space Foundation since 2017. I am currently the Vice Chair for Career Development for the IAF WD/YPP and a member of SEOC.

L: If you could pick one memorable moment of working in the space industry, what would that be and why? (I know this is a tough one!)

I had the opportunity to cover EFT-1 (the first test flight for the Orion spacecraft) for Talking Space and got to photograph the launch from the roof of the VAB! We got some amazing images to go along with our coverage but I think getting to stand on top of the VAB was the most memorable moment working in the industry and, thanks to a scrub, I got to do it twice! It was humbling to stand on top of a building with so much history getting to look out across a landscape that's seen even more. The picture I attached is from EFT-1's launch day.

L: If you could travel anywhere in our solar system, where would it be and why?

S: The Moon so I can watch the Earth rise over its horizon. I can't imagine any experience in this entire universe which would be better than that - to see all the life I've ever known rise out of the darkness of space - wow!

L: What is your favorite space book (fiction or non-fiction)?

S: While not a space book per se, I love the Young Wizards series by Diane Duane because they visit the Moon when they need a quiet place to think and it's always caught my imagination and deep love for space.

L: If you could sit down with anyone (alive or dead) and have a conversation or cup of coffee with, who would that person be and why?

S: My grandmother who passed away from dementia - I'd give anything for another moment with her from before she was sick. I think time is the only thing of value we have to give, and I would find a cup of coffee with her priceless.

L: What is the most valuable piece of advice you've had so far in your career that sticks with you and you carry with you everywhere you go?

S: Tell our story in their words - Dava Newman said this when asked in a NASA/US students session at IAC when asked how to advocate for space in Congress. I've used this piece of advice in so many situations since, and when teaching others how to be better communicators. It has been invaluable.



Abdulla Hil Kafi • Bangladesh |



Launchpad: What is your current role and where do you call home?

Abdulla: Currently, I am working at BRAC University as a Research Associate. My primary job role is research space, satellite, robotics, and teaching ten credit hours in the EEE and CSE departments. One of my job roles is establishing a Center of Excellence dedicated to the Development, Verification, and Validation of Satellites. My research interest includes space Radiation, earth observation applications using machine learning, Space Robotic (MARS ROVER) & AI in Embedded systems. I also advise 75 students in undergrad to choose their courses each semester. During my stay at BRAC University, I designed two courses and two labs. Courses are Satellite Communication (EEE447) and Introduction to Robotics (CSE461). I am living in Dhaka City, the capital of Bangladesh.

L: How long have you been working for the space industry? What was your inspiration to work in this industry?

A: I have been involved with satellite research activities since 2015. Working with space is challenging. It's a continuous learning process to cope with the new updates. I always love challenging myself in those fields where I can improvise my skills. Without any doubt, the space industry always throws new challenges, from proving your vague ideas to bringing those ideas into reality. This kind of challenge inspired me to work with space more and more!

L: If you could pick one memorable moment of working in the space industry, what would that be and why? (I know this is a tough one!)

A: My most memorable experience was when I heard the first beacon of my country's first satellite, BRAC Onnesha, which three Bangladeshi Engineers made. It was built under the Kyushu Institute of Technology, Japan's BIRDS-1 project. I always feel proud to share I am one of the engineers of that satellite. On July 7th, 2017 midnight, the satellite was passing over Japan. I was eagerly waiting at Kyushu Institute of Technology's satellite ground station. The CW beacon just took my breath away. It seems that we both are talking with each other.

L: If you could travel anywhere in our solar system, where would it be and why?

A: I want to visit Jupiter to see its moon Ganymede from Jupiter's surface. Ganymede is the largest moon in our solar system. I am so curious to see how it looks like from the surface of Jupiter.

L: What is your favorite space book (fiction or non-fiction)?

A: One of my favorite books is "Ondhokarer groho" (The Dark Planet) written by Muhammed Zafar Iqbal, a Bangladeshi science fiction author. A poet named Yuha has a strange wish to see and feel the true beauty of space by traveling through spacecraft. Although Yuha has finished training for space travel, everyone is a little hesitant about Yuha going to space. Can he adapt to a long, lonely journey? Incidentally, the mechanical system of their spacecraft, called the 'Quantum Network,' disobeys manmade commands and decides on its own, trying to reach the wrong destination. Through this book, it seems that I am floating on my spacecraft.

Meet the mentees!



L: If you could sit down with anyone (alive or dead) and have a conversation or cup of coffee with, who would that person be and why?

A: I miss the conversation with my father every day, who passed one year ago due to Covid. It was a daily routine at night for us to discuss my research and the current need of the country and the global. We both had a different backgrounds, but my father was always curious about my field of research. He never gave any suggestions directly, but I found it was full of feedback at the end of our every discussion. I found out my next step whenever I talked to him. Still, I feel that he knew me better than myself. He always brought out the best of me. I wish to sit with him again and grab a cup of coffee for a never-ending conversation.

L: What is the most valuable piece of advice you've had so far in your career that sticks with you and you carry with you everywhere you go?

A: I think I can mention several pieces of advice I received but as I need to say about the best one, in that case, I can mention an important "question" that was asked to me by my professor which definitely shape my career and I am still following that one. My professor and the best mentor of myself Prof. Mengu Cho suddenly asked me "Where do You want to see yourself after 10 years?" Before that, I never thought about it, not a single day. Moreover, I have only 30 Sec to answer. I answered. From that day I knew that I need to find myself to get things done before it gets too late for me. Knowing where I would like to be in 10 years allowed me to focus. In order to increase the chance of getting to the right place for myself, it helped to get clarity on the paths I am following today, reflected on the skills I need to master, find the people I need to talk to, or the places I need to be. A question gave me a lifetime advice about how to set my success strategy.

#IAFDYK

The IAF was founded in 1951, when scientists from the field of space research gathered in an attempt to ensure a constant dialogue between the space nations, regardless of political turmoil.



Meet the mentor!







Launchpad: What is your current role and where do you call home?

Anthony: Head of Division, Technology and National Security, Department of Industry, Science, Energy and Resources. Located Canberra, Australia

L: How long have you been working for the space industry and what inspired you to work in this industry?

A: Since 2018. My principle inspiration was seeing how space technologies were transforming and supporting all our lives - from finding our way to work, supporting the broader economy in areas like agriculture, and supporting emergency management. I wanted to support Australia leveraging its extraordinary capabilities and contribute to the untapped potential in the growing space economy. Space also inspires, it's one of those unique fields that encourages everyone to ponder what is possible. It's been such a privilege to support the growth of Australia's space industry.

L: If you could pick one memorable moment of working in the space industry, what would that be and why? (I know this is a tough one!)

A: There are so many memories - from establishing Australia's Space Agency to signing the Artemis Accords. However my most memorable moment is where we announced Australia's participation in NASA's Moon to Mars activities - which has now resulted in Australia supporting the development of small rover to go to the surface of the Moon. It will draw on Australia's strengths in automation to assist NASA with extracting oxygen from regolith.

L: If you could travel anywhere in our solar system, where would it be and why?

A: Enceladus - to see the salt water plumes.

L: What is your favorite space book (fiction or non-fiction)?

A: Space Barons!

L: If you could provide all of the mentees with one take-away from this programme, what would it be?

A: Look after your team and build leaders of the future - culture eats strategy for breakfast. Don't forgot to ask your team what they need to be successful.



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The IAF Digital Library is the world's largest database of full-text articles covering all disciplines related to space counting more than 50,000 papers in all space-related disciplines. More info at https://dl.iafastro.directory/

Tips for Effective Communication!



If there is one thing this last year has taught us is that communication is the backbone in everything we do in our professional lives. Whether we are back in the office or still meeting on Zoom, there are several aspects of communication that need to be considered. It is a skill that requires constant attention and can always be improved upon - meaning that no matter how shy you are or how nervous you get, you can master this skill with practice! Below are some tips and resources found by the Launchpad Organizing Team.

Regardless of the specific situation you are communicating in, keep in mind the **seven C's of communication**. This means ensure all communication efforts are <u>C</u>lear, <u>C</u>oncise, <u>C</u>oncrete, <u>C</u>orrect, <u>C</u>oherent, <u>C</u>omplete, and <u>C</u>ourteous. These are at play whether you are composing an email, talking face-to-face in a meeting, giving a presentation to a large audience, or even writing a report. This article linked <u>here</u>, along with many others that can be found online, dive deeper into these seven C's. In summary, we want the receivers of our communication efforts to know exactly what we are trying to communicate to them without any extraneous information or confusing thoughts.

Depending on the specific situation that you are communicating in, there are additional considerations that can be taken into account to have more effective communication with your colleagues. A professional development course that is available on LinkedIn Learning through the University of South Florida highlights five key areas: (1) <u>interpersonal communication</u>, (2) <u>giving and receiving feedback</u>, (3) <u>communicating in times of change</u>, (4) <u>persuading others</u>, and (5) <u>communicating across cultures</u>.

Interpersonal communication is the basis of all of our communication efforts. It is the notion of exchanging ideas, feelings, and information between two or more people through *both* verbal and non-verbal methods. These can be face-to-face, virtual, or written. Essentially, you will require these skills in every other aspect of communication. This is where the seven C's of communication really comes into play. This <u>article highlights</u> some soft skills needed to further develop your interpersonal communication skills.

Giving and receiving feedback is how both you and the organization can improve, move forward, and make the great advancements that we see in the space industry on a day-to-day basis. Without being able to both give and receive feedback, progress will more than likely stall. If you are receiving feedback, ensure that you are listening without interrupting and are keeping an open mind to the feedback you are receiving. While it might not be what you want to hear in the moment, taking some time to reflect after getting the feedback and understanding all that was discussed will allow you a clear head to decide how to move forward. Always follow-up on the feedback that you receive, whether it is a note of thanks, a follow-up meeting, or implementation of a suggestion. If you are giving the feedback, be sure that you are aware of your behavior and that you are balancing the feedback, especially if the feedback is a comment on something the receiver can do better. The sandwich approach is well-utilized here, where a positive comment or strength will sandwich a comment related to an area of improvement. This is another area where the seven C's will be highly beneficial. This article highlights some more specifics and ideas.

Tips for Effective Communication!

If there is one thing that has been learned during the global pandemic of 2019/2020 is the value that is placed on communicating during a time of change. A time of change can be something as massive as the complete switch to a virtual environment in light of the COVID-19 pandemic or it can be as commonplace as a change of leadership. In either case, keeping the narrative open in the workplace is one key to not only surviving, but thriving, as a team in times of change. Forbes.com additionally suggests to be transparent and to build trust amongst your colleagues by keeping to your promises, whether big or small. Finally, be accessible and be able to listen.

In many positions, knowing how to negotiate and persuade people is part of your day-to-day life. Maybe you already have these skills? Maybe you are new to it? In any case, there are a few things to be kept in mind when entering a scenario in which you have to prove your point, back your data, or win a contract. You need to first understand the needs and background of your audience members, while simultaneously building a rapport with them. In the former, while in some cases you may already know the needs of your audience, sometimes you will need to do some work to figure this out. Whether it is learning the educational background of your audience to tailor a technical presentation to or conducting a survey, both are examples of efforts to better understand your audience. Building rapport is a process that will continue throughout your entire career. Even after one job or task is complete, thanking them and staying engaged is critical for future collaborations - they will have had an enjoyable and productive experience working and collaborating alongside you and by continuing to build your rapport, they will remember this experience vividly. In addition to the above, you need to also be able to highlight the benefits, address any concerns, and find the "perfect" middle ground with the parties involved. While this discussion provides a brief overview into what persuasive communication is and how to improve in it, there are many great articles out there that dive deeper into various aspects of this type of communication. Some good articles for further reading can be found here and here.

Finally, communicating across cultures is critical in today's work environment. The IAF itself truly embodies this principle of effective communication, bringing together space professionals from different geographical locations, gender bias', and generations through the IDEA 3G platform. Communicationtheory.org states that our cultural understanding of the work affects our style of communication greatly, highlighting the fact that where we grew up forms how we think, the attitudes we have, and the values and beliefs we uphold. All the way up to adulthood, our community reinforces how we think. So when we enter into the workforce and begin interacting with colleagues from around the world, we now need to be both understanding and adaptable in our ideals and beliefs on communication. We need to find a "common ground" way of communicating so as to respect each other but still communicate efficiently. In this area of effective communication, listening and seeking feedback are some of the best things you can do. Communicationtheory.org has a great article on this topic.

While it is impossible to cover such an important topic in a short article format, this writing highlights some key skills and ways to improve them to start on a journey towards more effective communication. We encourage you to talk to your mentors more about communicating effectively and ways in which you can improve.

NASA to support development of second Artemis lunar lander

NASA announced March 23 that it will support development of a second lander to transport astronauts to and from the lunar surface to provide competition with SpaceX for the later "sustainable" phase of the Artemis program.

Starlink reaches 250,000 subscribers as it targets aviation and other markets

SpaceX now has a quarter of a million subscribers for its Starlink satellite broadband service as it looks to move into new markets like aviation. Jonathan Hofeller, vice president of Starlink commercial sales at SpaceX, said during a panel at the Satellite 2022 conference March 22 that while Starlink is best known for its consumer broadband service, it was also working to provide services for enterprises and other sectors.

Arianespace and SpaceX work to adjust launch manifests

Arianespace says it is working to remanifest payloads that were to launch on Soyuz rockets while SpaceX says it's finding ways to accommodate new customers on its vehicles. During a panel at the Satellite 2022 conference March 22, Stéphane Israël, chief executive of Arianespace, acknowledged the company's plans had been upended by Russia's invasion of Ukraine and subsequent suspension of both Soyuz launches from French Guiana and those from the Baikonur Cosmodrome carrying satellites for OneWeb.

U.S. government urged to address supply risks in the space sector

The U.S. military traditionally relies on a core group of defense contractors to ensure it has access to critical supplies and equipment at all times. But as space becomes increasingly important to military operations, DoD should address supply risks in the space sector given the volatility of the market, experts said March 21 at the Satellite 2022 conference.

Upcoming Webinars

- 1) Policy and regulation in the space industry (late April 2022)
- **2)** Inspirational Networking with the 2021 Mentees (mid May 2022)





REGISTRATION TO THE IAC 2022 IS NOW OPEN!

Join us this year for the annual International Astronautical Congress in Paris, France from 18 to 22 September 2022. We are bringing together the world's most experienced people and organizations for the ultimate five-days conversation on space.

Don't wait: you can benefit from the Early Registration Rates until 2 JUNE 2022 only! <u>Click here</u>



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