OASA's 2024, Sustainability and Innovation

Sustainability is no longer a "nice-to-have" but an essential criterion for success both on earth and in space. OASA brings to the GBA a new series of masterclasses on sustainability and innovation. During these masterclasses, we will delve into the most pressing issues surrounding climate change and explore the role of businesses and individuals in addressing these challenges through innovative practices.

The agenda is designed to provide thought-provoking discussions, leading to innovative and actionable insights:

ESG Integrity: Investors have begun to question the robustness and fluff behind those ESG metrics. What are your own concerns?

Climate Change: Get a better understanding of the impact of global temperature rise at 2˚ and 4˚ and its implication for Hong Kong and GBA. Explore the alarming consequences of biodiversity loss and reality check the global and China's regulatory response to combat climate change.

Sustainability Leadership: Be part of the sustainability revolution and work together to build your own compelling business case for climate and sustainability leadership. Learn from the evolution of business responses to climate challenges and the value that corporate sustainability functions can add. The HK Government is working on a set of new metrics. What would be your inputs? What about sustainability for space?

Business Response: As a transformative approach to production and consumption that fosters sustainability, can your organisation unlock the power of innovation, collaboration, and partnerships to drive positive change as part of the circular economy? Learn how to prioritise ESG and reporting while also addressing the critical issues of greenwashing.

Empower yourself as an innovator, consumer, and business leader. Discover actionable steps you can take, ways to communicate with your children, and learn to become more cynical with false claims.

According to a board-level survey from PWC, about 48% of the executives believe their boards do not encourage innovative, forward-looking approaches. (PWC . The Boardroom Mosaic: Piecing Together the Future. April 2024).

How Does It Work?

First, choose a simple ESG topic to start. That will set the tone and direction in insight and new perspectives. Choose from one of the five core subjects. Each is 1.5 hours long (and can be extended to 3 hours with some interactive exercises). Typically, that core is a teaser and should provide good feedback to you on how well that concept can be extended into your company. Yes, each company and each culture is distinctively different.

Next, select one or several MasterClass that you believe would be then next disruptor for your teams. As these concepts are quite new and can be foreign to your culture, working with your OASA leaders to adapt them into your organization is key. Unless any new learning can enter or begin to change some current processes or procedures at work for immediate impact, management level learning usually takes a long period for payback. We are here to help you get a better grip on learning transfer and adopting such practices into work.

The following Sustainability topics are topical ones. These workshops range from 1.5 hours to 3 hours in length and are expected to be combined and spliced into a full-day program based on the organization's unique needs. Here's an example of a one-day fully packed masterclass:

A. A Sustainability Introduction Workshop (SDG 2030, Space Debris, or Climate Change). (1.5 hours)
B. Alignment with organization's VMV, Critical Success Factors and Critical Control Components. SWOTs with Mini-mini and maxi-maxi. (1.5 hours)
C. Hands-on Exercise. Converting the learning to KPIs or Objectives Key Results (30 minutes)
D. A Sustainability Masterclass (from the list below) (3 hours)
E. Back at work actions. (30 minutes)

New Sustainability Topics Starting Q2 2024

Thematic Core Introduction (1.5 to 3.5 hours)

1. Space Sustainability and Space Debris Removal, by Prof. Quentin Parker
2. Climate Change and Your Hong Kong Connections, by Prof. Leung Wing Mo
3. The Arrival of NewSpace in GBA, by Prof. Gregg Li
4. Are We Alone, by Astronaut Chris Altman and Prof. Gregg Li
5. SDG2030 Game, by Perry Lam

Masterclasses (3.5 hours to 7 hours). Going Deeper and Harder into the Mindset[1]

1. How Bad Are Banana™ -- the Carbon Footprint Game, by Perry Lam
2. Being Agile in the NewSpace Economy, by Fletcher Ng
3. AI, ChatGPT, and the Smart City of Hong Kong, by Roy Chan
4. Solving Sustainability Issues Using UX, by Fletcher Ng
5. Commercialising the Next Products in the NewSpace Economy, by Prof. Gregg Li

Uniqueness of Our MasterClass – Short, Punchy, Tailorable, and Relevant

The Academy has a few core courses for organizations looking to round out their professional training syllabus in innovation, technologies, with a sustainability theme (climate change and space debris removal). Since our foundation in 2021, the Academy has set in place new innovative programs that would bring about real learning and behavioral changes at work. Each of our modules is about three hours in length, enabling mixing and matching to create tailored programs for each organization.

To ensure quality, each course has gone through several trials -- through a series of dry-runs and assessments before they are released to the public. Because the quality assessment is both rigorous and time-consuming, there is a set sequence of development. Majority of our courses are practical, built on sound academics, and taught by seasoned and award-winning trainers.

Most of our courses would include a mix of training tools, inter alia[2]:

- AI and ML enabled: the use of ChatGPTs to speed up participant's learning and work efficiency can be built into the course,
- Short lectures (each lasting 30 minutes or less),
- Back-at-work exercises to seal in the learning,

[1] Other subjects are possible, due mainly to availability of our trainers.

[2] Each course has a fixed delivery period of about three hours. Each course can be designed to include a few tools: pre-assessment, comparative diagrams, cases, retention assessments, PowerPoint presentation or summary slides, a short current best practice guide, a set of 10-point evaluative guidelines. All courses are taught by certified professionals at the Academy with strengths in each of the assigned areas.

- Virtual online reinforcement where supplemental learning is sometimes possible or linked,
- Pre and post assessment exercises,
- Short one-page cases, or simple role plays and simulated exercises,
- Academic and practical references,
- Content assessment by an independent academic panel, pre- and post-program, and
- Delivered by professional trainers who are already professionals in their respective fields and who have been trained and validated by the Academy as an accredited trainer for that course.

Eventually, each subject area can be further strengthened to help the users through a multiple-question evaluative instrument that is linked to the industry in question. Each course is designed for managers and professionals with at least 3 years of working experience, a bachelor's degree, or a dedication to his/her profession through evidence of active membership in his/her professional institution.

Why Clients Prefer Our Courses and Programs?

1. **Near-Immediacy in Applications and Back-at-Work Relevance**: Participants like them more because they can be applied immediately at work. Recent cases are used throughout. All courses can be amended and adapted for the organization for a nominal fee.
2. **Future Applications**: all our key programs follow our proprietary problem solving methodology -- from symptoms, to causes, to prognosis, to courses of treatment; so that learners learn how to solve 'future' problems.
3. **Seasoned Trainers:** Each course is taught by an experienced professional certified in his/her profession and in management and consultancy; and must be trained and accredited by the Academy. Clients need not worry about the competency of the trainers. That worry is left to the Academy. They must be a professional certified in their technical field. Participants can learn to become trainers through accreditation (green belt to black belt). By teaching, the learner's ability is further enhanced.
4. **Combining Theories with Practices**: The contents are both academically respectable and functional at the same time (validated independently by an international team of training and educational experts). This ensures learners receive only the best and only relevant materials. Theory provides a general guide and practices reinforces the learning.
5. **Problem-Based Learning:** Although each of us has a different preference of learning, adults generally learn best by solving complex and wicked problems. Making mistakes and learning from past mistakes is a powerful means of learning.
6. **Original and Relevant**: Materials are in both English and in the local language. Management examples are amended to fit the local culture. In most cases, we would adapt the materials to the situation at our clients. We aim to provide 'just-for-you' solution based on a modular framework.
7. **Competency-Based**: Courses are competency based, that is, focused on know-how. Employers pay only for those that require immediate competency skills enhancement. Pre and post assessments can be built in. Learners learn how to do and what to do, supported by background on management concepts on the why they have to do the practices.
8. **Single Point of Contact**: You deal with one point of contact for your entire problem solving training needs. In addition, we can build learning management system and record database for your learners.
9. **Minimum worries**: Quality and value for money must apply to all our programs. Satisfaction guaranteed or a replacement course will be provided free in another subject or the same subject by another accredited trainer.

Core One: Space Sustainability and Space Debris Removal

Prof. Quentin Parker

Paying attention to space sustainability and debris removal is essential to ensure the continued safe and productive use of space for all humanity. It's a complex challenge that requires international cooperation, technological innovation, and responsible behaviour from all space actors. If humanity is not careful, we will never be able to get off this planet.

- Kessler Syndrome: The accumulation of space debris can lead to a cascade of collisions, creating more debris and threatening the long-term sustainability of human activities in space, including essential services like communications, navigation, remote sensing, and weather monitoring[1].

- Safety and Accessibility: As the amount of debris increases, the risk of collisions with operational spacecraft also rises, potentially endangering astronauts and causing damage to satellites that provide vital global services[1].

- Environmental Protection: Space is a shared resource, and preserving its environment is crucial for the short-term and long-term success of humanity's endeavours in space. Ensuring that it remains usable for future generations is a responsibility that falls on all space-faring entities.

Core 2: Climate Change and Your Hong Kong Connections

Prof. Leung Wing Mo

Climate change affects everyone on earth. We should all make a conscious choice to make a difference. What can you do to play a part in mitigating climate change.

- Satellites and Sensors into Climate Change
- The Warming Up of Hong Kong and Rising Sea Level
- Climate Neutrality
- SDGs and Sustainability
- Hong Kong Climate Action Plan

With active participations, you are expected to be able to:

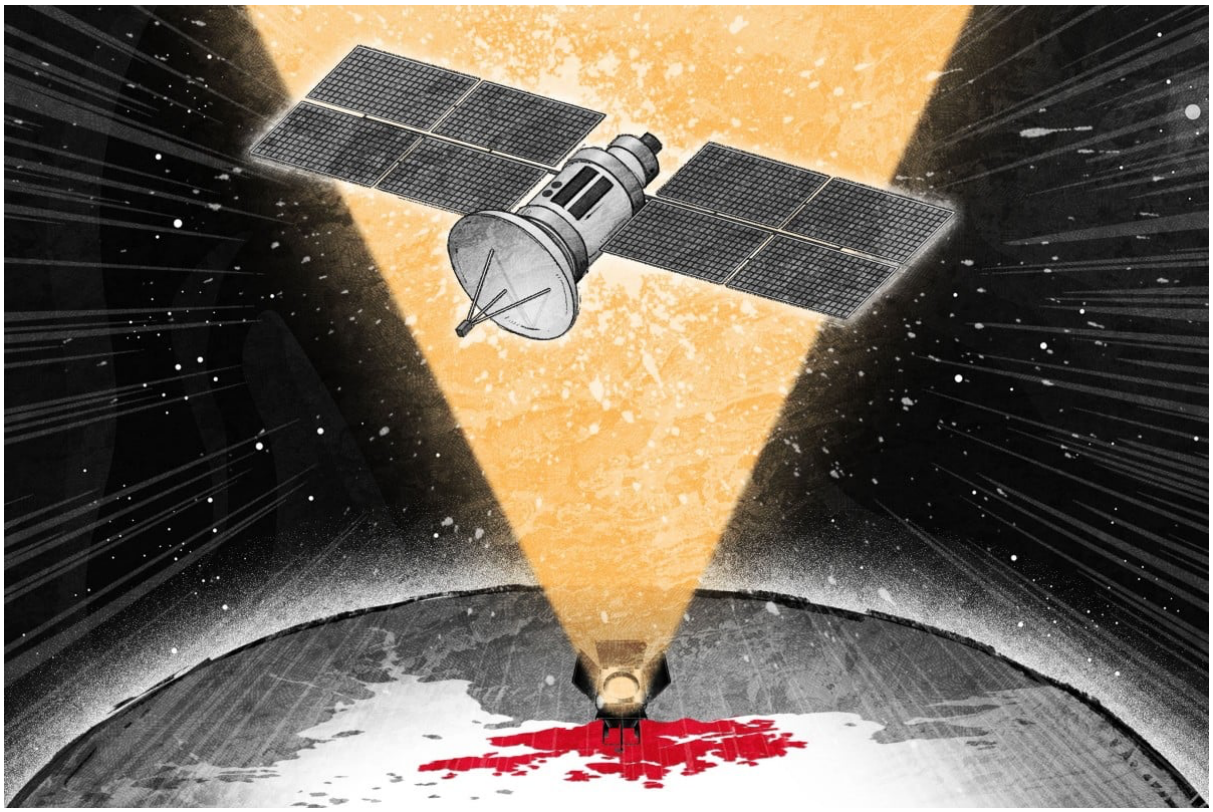
- Describe the basic features of the climate system
- Explain how climate change is monitored and forecast in Hong Kong
- Describe the connection between climate change and extreme weather we are experiencing
- Explain the direct and indirect risks of the climate crisis to Hong Kong
- Describe how climate change impacts the global efforts to achieve the SDGs
- Explain how Hong Kong plans to combat climate change

Core 3: The Arrival of NewSpace in GBA

Prof. Gregg Li (HKU, CUHK, PolyU, others)

NewSpace has arrived. NewSpace introduces the elements of innovation, entrepreneurship, and commercialisation to the old "Space" sector that was the domain of governments. Starting in 2009 with Elon's SpaceX, the world of NewSpace has begun. This sector is now of one the fastest growing business sectors according to the United Nation, Morgan Stanley, and McKinsey. The latter even suggested that by 2035, this will be a 1.5 Trillion dollar global sector.

What does this mean for the average SMEs? For MNCs operating in the GBA? What signs are we seeing and how can we get ahead of this game? Can we?



(Source: SCMP. https://www.scmp.com/comment/opinion/hong-kong/article/3252893/how-hong-kong-can-play-critical-role-space-economy)

- Mindset Reframing, VUCA, and Improving Resilience
- Conversion of Innovation into Scalable and Grounded Products
- Exponential Innovation and the Integration of NewSpace and Everyday Technologies.
- Environment, Social, and Governance (ESG)
- The Digital and NewSpace Revolution

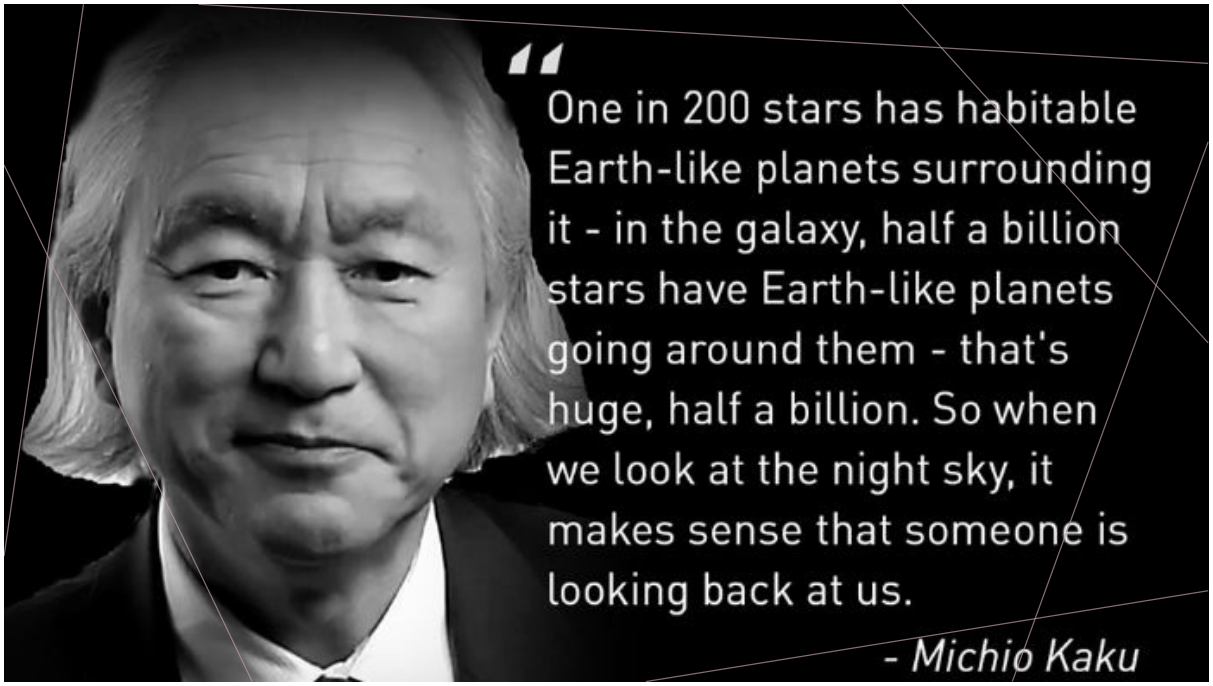
Core 4: Are We Alone?

By Astronaut Chris Altman and Prof. Gregg Li

This course is a lot of fun and employs critical and analytical thinking in one's framing as we come to learn and appreciate science and Space. Most of us have heard of the possibility of aliens. Sometimes we called them UFOs or unidentified flying objects; or UAP for unidentified anomalous phenomena. Are they real?

Or, are we actually alone in this vast universe?

NASA isn't standing still and have been tasked by the US Congress to investigate and to open up its archives. Even the US Congress is jumping into the act as of 2023, in attempts to force NASA and the US Dept of Defence to open up its knowledge base and share discovery with the world. So, are we alone? Should we care?



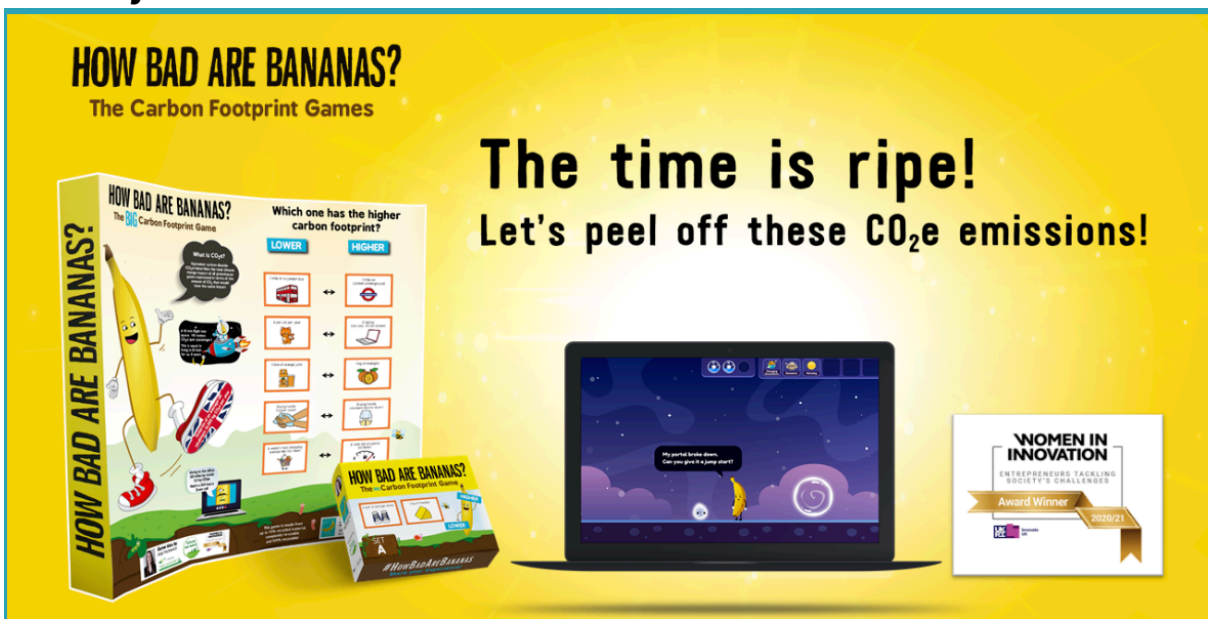
- Can humans create UFOs and visit other planets?
- Have there been real UFOs? Could they be hypersonic drones?
- Has UFOs now replaced our "Unknown Unknowns?"
- What would be the future commercial value for investigating UFOs?
- If I want to be an astropreneur on this topic, how should I begin?

Core Five: 2030 SDGs Game

Perry Lam

Masterclass One: How Bad Are Bananas – The Carbon Footprint Game

Mr. Perry Lam



How you wondered…

- What is your Carbon Footprint?
- How can you become more "Carbon Literate?
- How can you make a positive impact to "Climate Change?"

If you answer yes to any of the 3 questions, then "How Bad Are Bananas™ --the Carbon Footprint Games" are for you and your organization.
This highly engaging and meaningful session…

- Equips you with the tools, knowledge, and skills needed to understand, assess, and effectively address the environmental impact of your actions and contribute to a more sustainable future.
- Empowers individuals to make positive changes in their personal and professional lives.
- Embraces a fun and dynamic way to learn how to make a positive impact in the future of you, your family, and society.

Masterclass Two: Being Agile in the NewSpace Economy

Fletcher Ng

Speed and impact are probably the two factors that come to mind when we are talking about the NewSpace economy. It is arriving faster, sooner, meaner, and comes with a no-prisoner mentality. How can any business cope with this burning platform?

What is your NewSpace strategy? How would you be able to apply a little of the Agile magic to this challenge? This workshop aims to discover,

1. How SpaceX has revolutionized Space exploration through being a truly Agile organization.
2. Exceptional product designs start with the Agile mindset – Understanding the principles and philosophies behind Agile.
3. Winning customers through value adoption.
4. Scrum and Lean Agile methodologies.
5. Workshop to design innovative sustainable products and services through Agile Innovation.

Masterclass Four: How AI can enable a sustainable future?

Roy Chan

AI will not replace innovators. But the innovators who use AI will replace those who don't. Jensen Hwang, the founder and President of Nvidia, alluded that **the** new world of computing will be very much generative AI that can generate last second's insight; and not reshowing a file from some old datasets. Some topics covered in this workshop:

- ChatGPT Working Examples and Green Algorithms
- How to Enable AI for Improving Sustainability
- Managing the Use of AI in Your Company
- Using AI in Satellites – the Next Game
- Confronting the Risks of AI

Facilitators’ Bio

Professor Quentin A Parker, PhD, BSc (hons), FRAS, FASA

Quentin Parker obtained a PhD from the University of St. Andrews in 1986 and joined the faculty at the University of Hong Kong in March 2015 to take up the Headship of the Department of Physics. In 2017 he became Associate Dean (Global) of the Faculty of Science and Director of the Laboratory for Space Research (see https://www.lsr.hku.hk/).

Prior to that Quentin worked at the Royal Observatory Edinburgh (1986-1992), Anglo-Australian observatory (1992-1999), Institute for Astronomy, University of Edinburgh (1999-2002) and then in joint position with the AAO and Macquarie University (2002-2015) where he developed and was director of the MQ research centre in Astronomy, Astrophysics and Astrophotonics.

Research activities are mainly associated with Wide Field Astronomy and he has discovered more Planetary Nebulae (PNe) than anyone in history.
He has also extensive experience as an instrumentalist with multi-object fibre-optic spectrographs and narrow-band filters. He has published more than 563 papers and articles of which 247 are refereed and has more than 18116 citations and h-index of 63. He has supervised and co-supervised a significant number of PhD, MSc and honours students to successful completion and is always keen to attract students. Quentin also has a long-term interest in Chinese Bronze artifacts and cultural heritage, interdisciplinary studies and science pedagogy.

More recently Quentin has been engaged in promoting STEM education from a Space and entrepreneurial direction and is currently Vice Chairman of OASA – the Orion Astropreneur Space Academy. He spearheads OASA's Global initiatives.

Professor LEUNG Wing Mo (CUHK)

Prof. Leung Wing Mo is the former Assistant Director of the Hong Kong Observatory. His areas of responsibility included, amongst others, networks for weather observation, climatology, corporate communication and radiation monitoring and assessment. He was also the first professional meteorologist in Hong Kong to host local TV weather programmes.

Soon after retirement in 2011, Mr Leung was invited to teach weather and climate change as an adjunct professor in the Hong Kong Polytechnic University, University of Hong Kong and the Chinese University of Hong Kong.

Mr Leung is actively involved in environmental issues and advocating climate actions in Hong Kong. He is currently the spokesperson of the Hong Kong Meteorological Society, the vice Chairman of the Guangdong Nuclear Safety Consultative Committee, member of Board of Directors of the environmental groups "The Green Earth" and "Conservation E3 Foundation" (CE3). He was appointed to various advisory bodies of the government, including the Council for Sustainable Development, and helped formulate the long-term decarbonization strategy in Hong Kong.

He also hosted the popular science education programme MObservatory (武測天) of TVB. A total of some 400 episodes about weather, climate, and other natural phenomena were aired. Besides, he was also the host of several documentary of Radio Television Hong Kong, including "Meteorological Series", "The Sinking Nations" and "Men are from Mars."

Mr. Fletcher Ng

Fletcher is a seasoned Corporate IT leader with extensive experience in managing technology teams at the highest level. He has a truly global perspective, having lived in London, Hong Kong, Paris, Amsterdam and working across 25 countries and 4 continents. Fletcher has overseen and provided strategic direction for global digital transformation initiatives. With over 25 years of experience in C-suite level positions, including Group CIO, Global CIO, and Regional CIO roles for multinational companies, Fletcher has a proven track record of success. He also has rich experience as a Global Project Director and has mastery in both Waterfall and Agile Project Management.

Fletcher is also a highly skilled Corporate Coach and Trainer, receiving consistently high grades from participants. He is particularly skilled in the areas of Project Management, Agile Innovation, Design Thinking, Strategic Planning and Digital Transformation. In 2024, he will be pursuing a certification in Systems Thinking. If you're looking for a leader who can bring global expertise, innovative strategic thinking, and a track record of successes in Corporate Training to your organization, Fletcher is the ideal person.

Fletcher is the Vice President at OASA, and has been a board member of OASA since its foundation.

Mr. Perry Lam

“How Bad Are Bananas™”–the Carbon Footprints Game is delivered throughout Asia by Perry Lam, Founder of the LAM Institute, accredited facilitator, and Executive Chairman of OASA.

Perry has a wealth of Executive Leadership experience with the Xerox Corporation, Sales Executive in the United States and DHL, Regional Director of Sales in Asia. Perry’s accreditations include:

- Establishing internal sale coaching program and culture at DHL Asia.
- Corporate Coach U Accredited Executive Coaches in Asia (2002).
- Coaching Clinic™ Licensed Facilitator (2004).
- International Coaching Federation, Accredited Corporate Coach (2008)
- International Coaching Federation, Professional Corporate Coach (2012)
- Fortongroup, Professional Leadership Coach (2018)
- Fortongroup, Team Coach (2020)
- 2030SDGs Game Facilitator (2018)
- “How Bad Are Banana’s Game™ Facilitator (2024)
- Carbon Literacy Trust, Carbon Literacy Facilitator (2024)

Astronaut Chris Altman

Quantum Technologist •NASA-trained Commercial Astronaut • Starlab OrbitX•UAPx•ARCFutureFellowPhDScholari nQuantumTechnology CofounderandChiefScientist,SolarCoin
Facebook:quantum.astronaut https://everipedia.org/wiki/christopheraltman

Professor Gregg Li (aka Dr. G)

Gregg has been a company doctor, a serial entrepreneur, a business angel, a board director, a professor of management, and now a coach to space talents.

As an Adjunct Professor at the University of Hong Kong, he has been teaching entrepreneurship and corporate governance, and starting in 2020, in astropreneurship. His peers and students called him "Dr. G" for short. Gregg is the founding chairman of many institutions, recently Invotech in 2013 with Sir David Akers Jones,…and now the Orion Astropreneur Space Academy (OASA) in Hong Kong. The Academy is a leadership development academy for entrepreneurs in space. When he is not creating or building things, Gregg is busy advising a portfolio of artificial intelligence and big data start-ups in Greater Bay. These companies are ready for Space, and these include a predictive engine firm, a mindfulness technology company, a voicebot, an X-ray algorithm company, and an e-commerce training engine. These new ventures explores cutting edge technology that would improve the quality of life for all humanity.

Time permitting, Gregg has been teaching business management at the graduate level, and has been a visiting or adjunct professor at the invitation of Tsinghua, HKU, HKUST, Polytechnics, CUHK, Fudan, Chicago, Washington, Hawaii, and Baptist since the 1990s. Gregg's areas of research and teaching include management consulting, innovation, strategy, leadership, entrepreneurship, risk management, and corporate governance. Gregg graduated from Washington University in St. Louis (BA in Liberal Arts), University of Hawaii in Asian Economics (MA), UCLA (MBA in Marketing and MIS), University of Hong Kong (MPhil in Buddhist Studies), and Warwick in the UK (Engineering Doctorate). He has held professional certifications in management consulting, FCMC; in cybersecurity, CISA and from the U. of Penn; and in directorship; HKFIoD.