



SriLankan Airlines Aircraft Engineers' Guild

AEGIS

Newsletter Issue 4 | Nov 2024



EDITORIAL

The Executive Committee and the editorial team are excited to bring you this latest issue of AEGIS following a brief hiatus. This issue comes at a time when the company is facing numerous challenges that could potentially create a lasting impact on its future. However, it is also a time for change, resilience and renewed vision. As always, the SLAAEG stands prepared to do its utmost to support the company and our members to successfully navigate the obstacles that lie ahead.

In this issue you will find insights into the role of airline maintenance programmes, a behind the scenes look at the latest pursuits of our avionics specialists, the inner workings of aircraft wheels and brakes and the latest developments in engineering safety reporting at SriLankan Engineering. Furthermore, a very special installment of our "Blast from the Past" series will take you all the way to Virginia, USA for a peek into the world's leading aviation museum.

We sincerely hope you enjoy this issue and look forward to hearing your feedback.

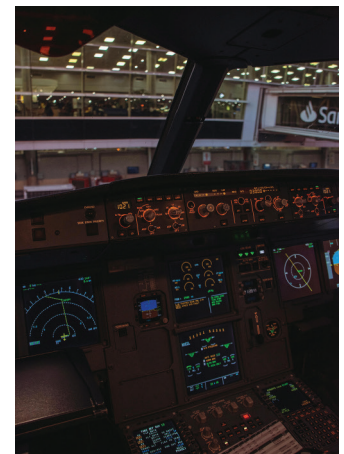
Until next time!

Jaliya Wijewardene

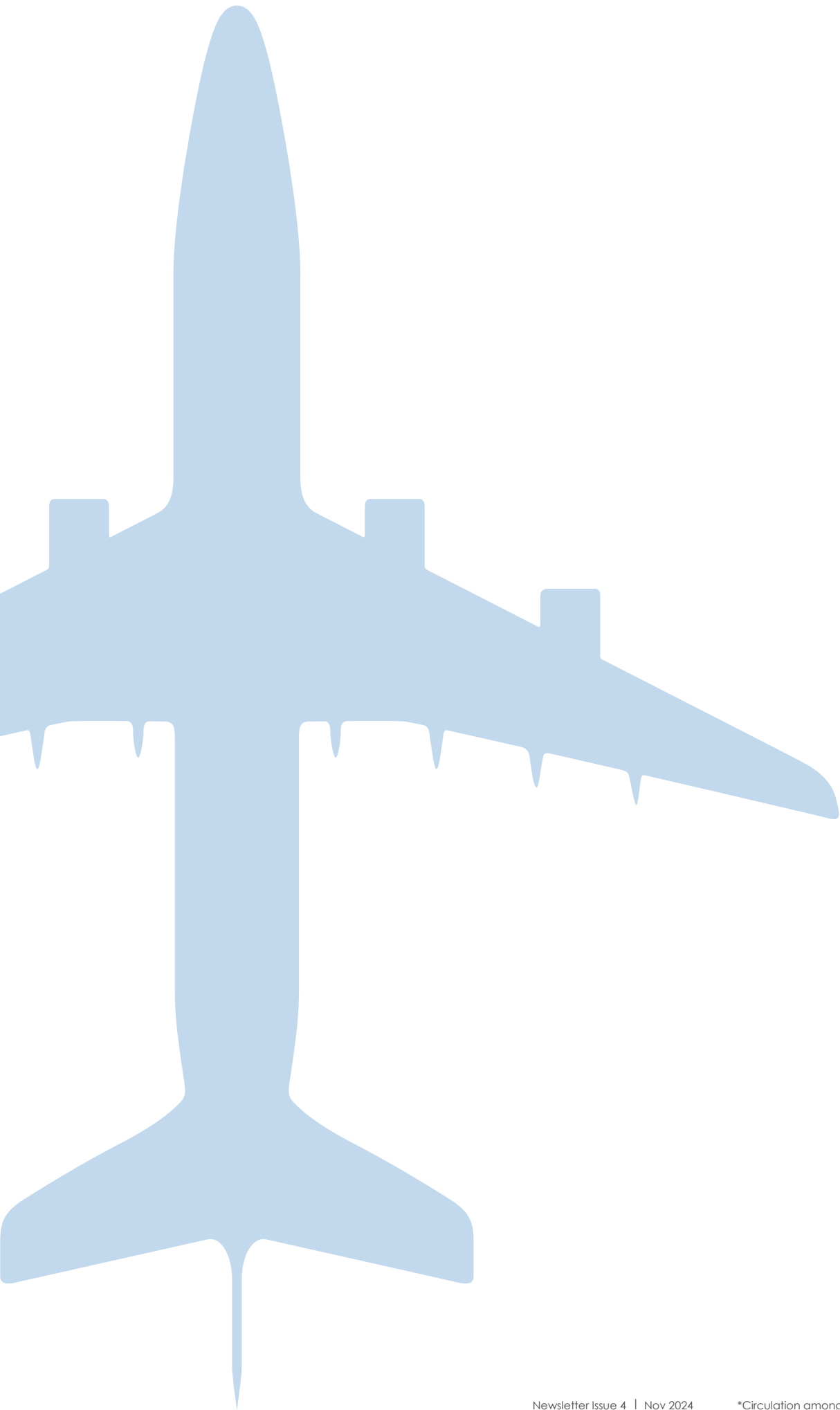
Editor

Contents

Annual General Meeting of The SLAAEG	1
AEGIS Message	3
Celebrating Our Role and Commitment to Excellence	
Welcome Message to the Chairman	5
A New Chapter for SriLankan Airlines	
Welcome Message to the HOE	6
Reconstructing the path for Engineering Excellence	
Welcome Message to the Board	7
Charting a new course for SriLankan Airlines	
The Silent Guardians of the Skies	9
Why Airline Maintenance Programs Are Critical to Safety	
Featured Article	12
Anil Karurathne - A legacy of dedication and excellence in aircraft engineering	
Blast from the Past	14
Inside America's Hangar	
Avionics - Technical Article	18
SriLankan Joins Hands with Fokker to provide EFB	
Sectional Focus - Workshops	20
Insight into aircraft wheels and brakes	
Reporting Culture	23
Making Safety Reporting Easier with a New QR Code	
Merchandise	25



Cover photo credit: Franco Monsalvo



Annual General Meeting of The Srilankan Airlines Aircraft Engineers' Guild

The Annual General Meeting of the SriLankan Airlines Aircraft Engineers' Guild (SLAAEG) was held on the 31st of May 2024 at the Avenra Gardens Hotel in Negombo. The meeting was called to order at 6.30pm. In his opening remarks, the outgoing President of the SLAAEG Jaliya Wijewardene briefed the membership regarding the numerous issues faced by the guild over the past year and highlighted the responses and accomplishments of the SLAAEG during the period. He also expressed his appreciation of the efforts put in by the Executive Committee during their tenure. He further stressed the importance of a renewed sense of unity and common purpose amongst the members of the guild to successfully navigate the challenges that lie ahead.

The Assistant Secretary of the SLAAEG Chirath Wijayalath then presented the Annual Report to the membership. His presentation included details of the issues that had been escalated to the management, CSR projects carried out and the accomplishments of the SLAAEG during the year 2023-2024. This was followed by the Treasurer of the SLAAEG Iroshan Perera presenting the Financial Report to the membership. Upon conclusion of these proceedings, the outgoing committee vacated their seats and Mr Amila Ranathunga was appointed Chairman Pro Tempore to facilitate the appointment of the new committee for the year 2024-2025.

The following were appointed to the SLAAEG Executive Committee for 2024-2025.



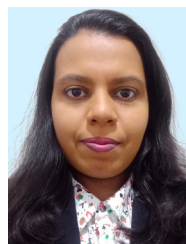
President
Hasna Adheeb



Vice-President
Prashan Madhuranga



Secretary
Hemanga Jayasundara



Assistant Secretary
Binuri Ariyaratna



Treasurer
Iroshan Perera



Public Relations Officer
Dilan Rajapaksha



Sections Representative
(Technical Services)
Ishitha Abeywickrama



Sectional Representative
(Planning)
Sankha Gomis



Sections Representative
(Workshops)
Laxman Jayaratne



Sections Representative
(Technical Training School)
Chirath Wijayalath



Sections Representative
(Engineering Quality)
Hiran Rajapakshe

Upon completion of the appointment of new office bearers, the incoming President Hasna Adheeb addressed the membership highlighting the goals, objectives and challenges for the coming year and in the absence of any new business, delivered the vote of thanks. The Annual General Meeting adjourned at 7.30pm.

The Annual General Meeting was followed by an evening of fellowship with members of the Engineering Management Team and representatives from the Association of Licensed Aircraft Engineers (ALAE) and the SriLankan Airlines Aircraft Technicians' Association (SAATA) in attendance. Senior Manager Aircraft Engineering Mr. Sanjeewa Dissanayake also addressed the gathering, highlighting the role of the SLAAEG and its members within SriLankan Engineering.

The SLAAEG thanks all of those who contributed towards making the Annual General Meeting and Fellowship 2024 a resounding success and looks forward to yet another memorable event next year.

Celebrating Our Role and Commitment to Excellence

As we reflect on the past year and look forward to the future, we are proud to share this annual message with all of you; the dedicated engineers and professionals who form the backbone of our airline.

Since day one, AEG has stood as a pillar of support for the engineers within our airline. Through the years, we have remained a steadfast bridge between our engineering teams and the management, ensuring that the voices of engineers are heard and that our concerns and ideas are addressed with the respect and attention they deserve. We are more than just an association, we are a community united by a shared purpose, to uphold the highest standards of safety, reliability, and performance for the airline and its passengers.

As engineers, we are entrusted with ensuring the safety, reliability, and efficiency of the airline's fleet. Our work is vital, not just for the day-to-day operations, but for the long-term success and reputation of the airline. Whether we're performing routine maintenance, troubleshooting technical issues, or implementing new technologies, we play a critical role in ensuring that every aircraft that takes off is ready for flight.

Our expertise extends beyond just technical proficiency; it is about creating a culture of continuous improvement, where every engineer takes pride in their work and strives for the highest standards. As a team, we are responsible for ensuring that SriLankan Airlines remains a trusted and safe carrier, and we take that responsibility seriously. The AEGIS has always been here to support our members, providing them with the tools, resources, and collective voice they need to excel in their roles.

In an industry that has faced many challenges, whether it be market fluctuations, evolving technologies, or global crises, we have remained resilient, adaptable, and focused on delivering remarkable outputs. Despite the obstacles that often come our way, our association has continued to support our members through every shift and change.

It has been instrumental in navigating these challenges, advocating for the well-being of our engineers and ensuring that their voices are heard at the highest levels of decision-making. We are proud of what we have achieved together, and our collective efforts have helped shape the continued success of our airline.

None of this would be possible without the unwavering dedication and commitment of all our members. We take this opportunity to express our gratitude to each one of them for their hard work, leadership, and support. Their tireless efforts have helped guide the association through challenges, and they continue to be the driving force behind our mission to ensure that our engineering teams are equipped, supported, and valued.

The committee's leadership is what ensures that we remain aligned with the goals of the airline while advocating for the best interests of our engineers. Their contributions have been invaluable in fostering a culture of collaboration, respect, and innovation.

As we move forward into the next chapter, AEGIS will continue to stand firm in its commitment to supporting our

engineers and contributing to the success of SriLankan Airlines. We will continue to work closely with management to ensure that our engineering teams are empowered with the resources they need to succeed, while also advocating for fair treatment, career development, and the recognition that our members so richly deserve.

Together, as engineers and as a united association, we will continue to push the boundaries of excellence, uphold the highest standards, and play a pivotal role in the ongoing success of SriLankan Airlines. Let us continue to support each other, to grow, and to deliver the very best in aviation.

With sincere gratitude

Signing off,

SLAAEG Executive Committee 2024/2025

Welcome Message to the Chairman

A New Chapter for SriLankan Airlines



The aviation industry is a dynamic and fast-evolving sector, and the leaders who guide its course play a critical role in shaping its future. It gives us great pleasure to extend a warm welcome to Mr. Sarath Clement Ganegoda, the newly appointed Chairman of SriLankan Airlines.

Over the years, Mr. Ganegoda has earned a reputation for innovative leadership, a commitment to operational excellence, and a keen ability to drive growth even in the most competitive and challenging environments. His proven track record in transforming businesses, navigating complex challenges, and implementing forward-looking strategies will be invaluable as SriLankan Airlines continues to build on its legacy of success.

As the aviation industry continues its recovery in the wake of the global pandemic, Mr. Ganegoda's guidance will be invaluable in steering SriLankan Airlines through these complex and often unpredictable waters.

Having demonstrated a unique ability to blend strategic vision with operational finesse, all while maintaining an unwavering commitment to safety and service quality, Mr. Ganegoda's experience in managing transitions and driving businesses forward during times of change will ensure that our airline not only adapts to these changes but thrives in the years ahead.

Furthermore, Mr. Ganegoda brings a keen understanding of how technology can transform customer experience. Whether through enhancing digital engagement, streamlining operations, or adopting innovative technologies to improve flight safety and performance, he is dedicated to making sure we not only meet but exceed the expectations of our passengers. The focus on innovation and efficiency will be key as the airline navigates the challenges of economic decline our nation faces.

As engineers, innovators, and professionals who are integral to the success of the aviation industry, we are eager to work alongside our Chairman and the entire leadership team to help build a safer, smarter, and more sustainable future for SriLankan Airlines. The vision set by Mr. Ganegoda will be a guiding force, uniting all teams within the airline to focus on continuous improvement, operational excellence, and exceptional customer service.

We are confident that Mr. Ganegoda's appointment signals a future of opportunity and growth for SriLankan Airlines. With his leadership, we will continue to embrace innovation, elevate the passenger experience, and lead the way in operational efficiency and sustainability. Together, we will build on the legacy of SriLankan Airlines, striving to set new industry standards and deliver world-class service on every flight.

Please join us in welcoming Mr. Sarath Ganegoda to the SriLankan Airlines family. We look forward to the exciting journey ahead and wish him all the success in this new and important chapter of leadership!

Reconstructing the path for Engineering Excellence



It is with great enthusiasm and optimism that AEGIS welcomes Mr. Vipul Misra, the new Head of Engineering at SriLankan Airlines. With an impressive career spanning across leading commercial airlines in India, his vast experience and industry insights promise a new era of innovation and excellence to our Engineering division.

Over the years, he has successfully led teams through major infrastructure overhauls, improved safety standards, and implemented cutting-edge technology solutions. His depth of experience in aircraft maintenance, fleet management, and engineering operations has positioned him as one of the foremost leaders in the field.

Throughout his career, Vipul has been instrumental in driving improvements that enhance operational efficiency and reduce downtime. His ability to balance safety, cost-effectiveness, has earned him a reputation for delivering sustainable and long-term solutions in engineering management.

As SriLankan Airlines continues its commitment to providing world-class service and maintaining the highest standards of safety and reliability, Vipul will play a pivotal role in ensuring that our Engineering division not only meets these expectations but exceeds them. His vision includes a focus on further streamlining operations, enhancing technical capabilities, and integrating advanced systems that will keep our fleet at the forefront of the aviation industry.

With a deep understanding of the unique challenges that come with managing a national carrier, Vipul is set to build on our existing strengths and help shape the future of our engineering operations. Under his leadership, we anticipate a stronger focus on predictive maintenance, improved turnaround times, and the continued development of a highly skilled engineering team that will support the airline's long-term growth and expansion.

As we look to the future, the appointment of the new Head of Engineering signals a renewed focus on the operational backbone of our fleet. With his leadership, we are confident that we will continue to meet the challenges of a rapidly evolving industry and set new standards of excellence in engineering.

We invite all our colleagues to join us in welcoming Vipul to the SriLankan Airlines family. Together, we will continue to build on the proud legacy of our national carrier, enhancing every flight with the highest standards of safety, reliability, and engineering excellence.

With Vipul at the helm, SriLankan Airlines is poised to soar to new heights.

Here's to a future of progress, innovation, and success!

Charting a new course for SriLankan Airlines

The SLAAEG is excited to welcome the newly appointed Board of Directors at SriLankan Airlines, a team of distinguished leaders poised to guide our national carrier through a crucial period of recovery and growth. With their wealth of experience in aviation, business strategy, and global leadership, this new board brings a fresh vision and strategic direction that will drive SriLankan Airlines forward in the wake of the global pandemic and the challenging economic conditions our country has faced.

The road to recovery will not be easy, but the board's vision is clear: to rebuild SriLankan Airlines into a stronger, more sustainable organization. In the face of global uncertainty and economic challenges, we will focus on long-term solutions that foster growth and stability. The board's collective expertise in business turnaround strategies, operational excellence, and financial restructuring will be crucial as we work to optimize costs, increase efficiency, and position SriLankan Airlines for future success.

With the aviation industry increasingly focused on sustainability, SriLankan Airlines will not only aim to meet global environmental standards but to lead the way in creating more eco-friendly and sustainable travel experiences for our passengers. The board's commitment to these values will ensure that SriLankan Airlines is prepared for the future—not just as a business, but as a responsible corporate citizen in an ever-evolving world.

We are all part of the same mission, to restore the airline to its former glory and beyond. Together, we will embrace the new opportunities that lie ahead from streamlining operations to exploring new markets, advancing customer service, and enhancing our reputation as a safe and reliable airline.

The SLAAEG looks forward to working closely with the Board of Directors to overcome the obstacles before us and chart a course towards a brighter future for SriLankan Airlines – a future that reflects the resilience, strength, and pride of Sri Lanka.

Welcome aboard, and here's to the exciting journey ahead!



The Silent Guardians of the Skies

Why Airline Maintenance Programs are Critical to Safety

In the world of aviation, where the stakes are unimaginably high and the margins for error are razor-thin, the importance of an airline's maintenance program group cannot be overstated. Imagine a world where the safety of every flight, every takeoff, and every landing relies on the unseen, often unheralded efforts of a dedicated team working behind the scenes.

The gravity of their role was starkly highlighted by the tragic crash of Japan Airlines Flight 123 in 1985. The disaster, which remains one of the deadliest single-aircraft accidents in history, underscored a critical lesson: a seemingly minor oversight in maintenance can have detrimental consequences.

The Boeing 747 that carried 524 passengers and crew, suffered a catastrophic decompression due to a faulty repair. The repair failure led to the loss of hydraulic control, making it impossible for the crew to manage the aircraft's flight properly. Despite valiant efforts by the pilots, the plane crashed into a mountain, resulting in 520 fatalities and only four survivors.



The crash of Japan Airlines Flight 123 (Location: Mount Takamagahara)

The sobering incident serves as a powerful testament to why the maintenance program group is not just a cog in the wheel but the very backbone of airline safety. Their responsibilities extend far beyond routine checks; they operate with a blend of precision engineering and vigilant oversight.

Their work begins long before a plane even touches down. Each aircraft follows a detailed maintenance schedule that includes daily checks, major overhauls, and everything in between. These schedules are meticulously crafted based on manufacturer recommendations, historical data, and regulatory requirements.

This group is responsible for developing and managing comprehensive maintenance programs tailored to each aircraft type in the fleet. Their work involves a complex web of tasks—scheduling routine inspections, overseeing repairs, implementing upgrades, and ensuring compliance with stringent aviation regulations. Every component, from the engines to the avionics systems, is scrutinized to guarantee it meets the highest safety standards.

They operate under the relentless pressure of ensuring that every aircraft is not only airworthy but also operating at peak performance. Their role is critical in preventing mechanical failures and ensuring that every system is functioning as intended.

In the aviation industry, safety isn't just a priority-it's a non-negotiable standard. The Maintenance Program team is instrumental in upholding this standard. Their work ensures that all maintenance procedures adhere to international safety regulations and industry best practices. They also stay abreast of the latest technological advancements and regulatory changes to continually enhance their maintenance strategies.

Their dedication extends to the meticulous documentation of every maintenance activity. This comprehensive record-keeping is not merely bureaucratic; it's a critical component of safety audits and investigations. Should an issue arise, these records provide invaluable insights into the aircraft's maintenance history, aiding in rapid resolution and preventing future occurrences.

The maintenance program group might not be in the limelight, but their role is indispensable. In essence, their seldom noticed work ensures that the magic of flight remains wondrous and secure.

So, the next time you buckle your seatbelt and gaze out at the endless horizon, remember that there's an entire team working behind the scenes – the silent guardians of the skies!



Final moments of JAL 123

FEATURED ARTICLE

Anil Karunaratne

A legacy of dedication and excellence in aircraft engineering

Anil Karunaratne's career in aviation is a powerful testament to dedication, expertise, and leadership. His remarkable journey with SriLankan Airlines, which began in May 1985, has left an indelible mark on the organization. With a career spanning nearly four decades, Anil's contributions to aircraft engineering and planning at SriLankan exemplify the highest standards of professionalism and excellence.

From Humble Beginnings to Engineering Excellence

Anil's entry into the aviation Industry began as a Planning Assistant at SriLankan (then Air Lanka) following the successful completion of a National Diploma in Technology (NDT). His initial responsibilities involved meticulous planning and coordination at the Engine Module Change Facility, laying the foundation for a career characterized by continuous growth and achievement. His adeptness in these early roles facilitated a swift ascent through the ranks—from Planning Assistant to Planning Officer, then to Senior Planning Officer, and eventually to Planning Engineer.

His tenure as Senior Planning Engineer, highlighted his deep understanding of aviation processes and his dedication to operational excellence. Anil's ability to manage complex projects and adapt to evolving challenges underscored his role as a cornerstone of SriLankan Airlines' engineering planning team.

Transformative Projects and Innovations

Anil's career is distinguished by his involvement in several transformative projects that significantly impacted the efficiency and safety of airline operations. Among his notable achievements was his pivotal role in the Quick Engine Change (QEC) build-up project. Under the leadership of Mahesh Dharmasiriwardhana and with guidance from Leel Jayasundara, this critical initiative aimed to assemble engines without defects, a task pivotal for maintaining high operational standards and safety.

A particularly significant accomplishment was the installation of the newly procured Quick Engine Change Kit on a CFM Leap engine in February 2022. This was a landmark project as it marked the first time the organization undertook such a task on a CFM Leap engine. With no prior experience in executing this complex procedure, the engineering division had to map out all processes from scratch. Anil's expertise and leadership were instrumental in the successful completion of this task. By carrying out this project in-house, the organization saved approximately USD 50,000.



Mentoring the Next Generation

In addition to his technical achievements, Anil is renowned for his commitment to mentoring and guiding the next generation of aviation professionals. His career serves as a valuable learning resource for newcomers to the field. Karunarathne's advice encompasses several key areas:

Going Above and Beyond

Anil not only completes his tasks but also motivates and supports his colleagues to ensure the entire team achieves its goals fully.

Commitment to Safety

He prioritizes aviation safety through rigorous training, proper use of safety equipment, and vigilant reporting of issues, maintaining the highest safety standards.

Effective Communication

His clear and proactive communication helps in understanding tasks and collaborating with different departments, leading to effective and efficient goal achievement.

Respect and Teamwork

Anil's career showcases his belief in mutual respect and valuing each team member's contributions, which drives organizational success.

Continuous Learning

His career success is bolstered by his dedication to ongoing learning, openness to feedback, and proactive approach to self-improvement.

Work-Life Balance

He manages to give his best during work hours while also effectively balancing his personal life.

A Lasting Impact

Anil's adherence to discipline, systematic approach to engineering, and unwavering respect for procedures have left a lasting legacy. His career reflects not only personal dedication but also a commitment to setting high standards for the industry.

Even after retiring in March 2023, his dedication to the company continued as he returned as a contract employee in May 2023, contributing for an additional 13 months. This ongoing involvement underscores his enduring commitment to supporting the company and the industry.

In Retrospect

Anil's career is a shining example of excellence in aviation engineering. His journey from a planning assistant to a senior engineering role, coupled with his significant contributions to major projects and his mentorship of future professionals, represents a lifetime of service and dedication. His legacy continues to inspire and guide those in the aviation industry, ensuring that his impact will be felt for years to come. His career not only highlights his personal achievements but also sets a high standard for future generations of aviation engineers and professionals. The SriLankan Airlines Aircraft Engineers' Guild wishes our dear friend and colleague Anil Karunarathne a long and happy retirement!



Inside America's Hangar

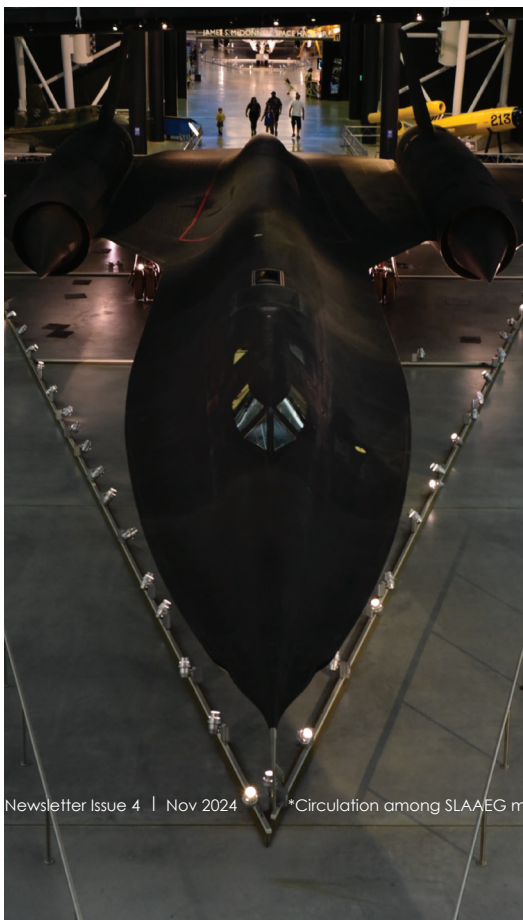
A visit to the Smithsonian National Air & Space Museum's Stephen F Udvar-Hazy Centre in Chantilly, Virginia, USA.

Established in 1846, The Smithsonian Institute is a complex of museums and education/research centres, the largest of its kind in the world. Named after British scientist James Smithson whose estate funded its establishment, the Smithsonian currently comprises of 19 museums, 21 libraries, 9 research centres and a zoo, located primarily in Washington DC as well as facilities in Maryland, New York and Virginia. The institute also has over 200 Smithsonian Affiliate museums and institutions across 46 US states, Panama and Puerto Rico. The complex houses an eclectic collection of over 154 million items earning it the nickname "the nation's attic".

The National Air and Space Museum of the Smithsonian Institution is must visit for any aviation enthusiast. Opened in 1946 as the National Air Museum it is dedicated to research a into the history and science of aviation and spaceflight. A noteworthy feaure of this museum is that nearly all of the aircraft and spacecraft on display are original primary or backup craft and not replicas. It is the fourth most visited museum in the United States and the eleventh most visited in the world. The museum operates two locations, the main building on the iconic National Mall in Washington DC and a 760,000 square foot annex at the Dulles International Airport in Chantilly Virginia - The Steven F Udvar-Hazy Centre.



Originally commissioned as the Dulles Annex by then US President Bill Clinton in 1993, the Steven F Udvar-Hazy Centre is named after the billionaire Hungarian-American businessman best known for establishing International Lease Finance Corporation, one of the world's largest aircraft leasing companies. The centre was built utilizing a US\$66 million grant from Udvar-Hazy to the Smithsonian in 1999. Construction of the centre began in October 2000 and opened its doors to the public in December 2003 as part of the 100th anniversary of the first sustained powered flight by the Wright Brothers in at Kitty Hawk, North Carolina. Today the centre houses over 180 aircraft and nearly 2000 smaller aviation artefacts. Following are some of the highlights of the collection:



Lockheed Martin SR-71 “Blackbird”

SR-71 Blackbird is a high altitude supersonic strategic reconnaissance aircraft considered to be the pinnacle of aviation development during the Cold War era. Designed and developed by the top-secret Skunk Works division of Lockheed Martin under the leadership of the legendary Clarence “Kelly” Johnson, remains to date the world's fastest jet powered aircraft. This example bearing USAF Registration 61-7972 accumulated over 2800 hours of flight time during its 24 years of active service with the United States Air Force. On its last flight en route to join the Smithsonian collection, it set a speed record by flying from Los Angeles to Washington DC in 1 hour, 4 minutes and 20 seconds.

Boeing B-29 Superfortress “Enola Gay”



The Boeing B-29 Superfortress is a propeller powered heavy bomber designed for both high altitude strategic bombing as well as night incendiary bombing at low altitudes. The most famous B-29s are the “Silverplate” series, extensively modified to carry atomic weapons as part of the Manhattan Project. This particular example, the “Enola Gay” named after the mother of pilot Col. Paul Tibbets was the first aircraft to drop a nuclear bomb in combat, deploying the Little Boy bomb over Hiroshima, Japan. The Enola Gay was accompanied by two other Silverplate B-29s, the “Great Artist” carrying instrumentation and the “Necessary Evil” carrying out photography.

Space Shuttle Orbiter OV-103 “Discovery”

Space Shuttle Orbiter Discovery is the third of five fully operational orbiters built as part of NASA's Space Shuttle Programme. During its 27 years of service, the Discovery launched and landed 39 times, recording more spaceflights than any other spacecraft. It successfully flew both research and assembly missions for the International Space Station and also carried several satellites into orbit, most notable among which was the Hubble Space Telescope. The Discovery spent a total of 365 days in space, travelled nearly 240 million kilometers and shuttled a total of 251 crew members during its time in service, retiring as the most accomplished orbiter in the shuttle fleet. The Discovery arrived at the Udvar-Hazy following a delivery flight over Washington D.C. riding piggy-back on the specially modified Boeing 747 Shuttle Carrier Aircraft. The Discovery is currently preserved as closely as possible to its condition following its last flight on the 113rd Space Shuttle mission in 2011.



Air France Concorde “Fox Alpha”

Developed jointly by Sud Aviation (later Aerospatiale) and the British Aircraft Corporation (BAC) the Concorde is the second of only two civilian supersonic airliners to enter service, the first being the Russian Tupolev TU-144. Only 20 were built of which 18 remain with 16 on display to the public at airports and museums in the United States, United Kingdom, France, Germany and Barbados. This ex-Air France example bearing MSN 205 and registration F-BVFA has undergone a complete restoration and is maintained in as-delivered condition. The aircraft is displayed in cruise configuration with the iconic droop nose and visor raised. This was Air France’s first Concorde and holds the distinction of accomplishing a round-the-world journey in 1998 covering 51,655 km in 41 hours and 27 minutes including over 19 hours of supersonic flight.



Avionics

SriLankan Joins Hands with Fokker to provide EFB Mount and Charger Upgrades to UL Fleet

SriLankan Engineering has once again teamed up with Fokker Services Group, a renowned expert in aircraft modification and upgrade solutions, to keep our fleet updated with the latest technologies.

History & Milestones

In 2013, SriLankan Engineering and the Fokker Services Group made history by facilitating the transition to Electronic Flight Bags (EFB). This involved introducing a provision to mount and charge the EFB device in the cockpit.

This was achieved through the introduction of the Spider Mount, a revolutionary EFB mounting system at that time, which was instrumental in facilitating the replacement of traditional paper-based flight bags with iPads.

The Spider Mount's success was a major milestone for both companies, which marked a significant shift towards a more efficient, environmentally friendly and technologically advanced flight operations system. The solution also included USB Type-A charging provision, which ensured the ability to charge the iPad during flight.



The New Requirement



As technology continues to evolve, it is important that we also remain updated and ready to adapt.

SriLankan Airlines' existing EFBs, which had been in service for several years will be phased out due to the stoppage of software support by Apple.

To maintain the EFB solution, it is required to continue the operation with newer generation iPad models where software supported is still maintained. Flight Operations selected the iPad Air M2 for this purpose to ensure longevity of EFB.

However, this move meant that the Spider Mount which only supported displays up to 9.7" could no longer cater to this new requirement.

The larger dimensions and increased power rating of newer iPads, requires upgrades in the the aircraft EFB mounting and USB charging provisions.

Upgrading to the Pivot Mount: A New Era of Efficiency

Fast-forward to the present, SriLankan Engineering has once again chosen Fokker Services Group to upgrade SriLankan Airlines EFB mounts to the Pivot Mount. This simple yet effective system offers enhanced flexibility, improved user experience, and increased durability.

Since the SriLankan fleet currently uses Fokker solutions, the upgrade from Spider Mount to Pivot Mount will be a seamless process with minimum ground time.

The PIVOT system provides an element of future proofing by ensuring compatibility of the aircraft mount with upcoming devices. Thus for future EFB upgrades, purchase of a compatible device case would be required, with no further modification required on the aircraft.

The currently available USB Type-A charging solution, is not sufficient for newer generation iPads. A charging port upgrade with higher power rating and USB Type-C is required to support current and future devices. Apple and other manufactures have adapted USB Type-C as the new global standard with European Union mandating USB Type-C as common charging standard.



A Partnership Built on Trust and Success

The renewed partnership between SriLankan Airlines and Fokker Services Group was formalized with a visit from Mr. Vincent Jansen, Sales Manager at Fokker Services Group.

A presentation on what solutions Fokker could provide SriLankan Airlines was held at Engineering Conference Room on July 18th 2024.

This meeting which included personnel from Engineering and Flight Operations, was concluded successfully with all stakeholders being briefed on key project milestones.

Presentation enabled to further build up on the relationship between the two companies which will go along way in the successful implementation of the project.



Upgrading to the Pivot Mount: A New Era of Efficiency

This EFB Mount and Charger upgrade marks a significant milestone for both SriLankan Engineering and Fokker Services Group.

4R-ALT (MSN 1060), will be the first Airbus A330 in the SriLankan Airlines fleet to be equipped with the new Fokker Pivot mount. The remaining aircraft will be gradually upgraded over the coming months.

For Fokker Services Group, Sri Lankan Airlines will be the launch customer for the USB Type-C charging solutions on Airbus A320 and A330 fleets. This achievement demonstrates Fokker Services Group's ability to adapt its solutions to meet the evolving needs of the aviation industry.

For SriLankan Airlines, this upgrade will ensure that our fleet remains at the forefront of aviation technology, providing pilots with the tools they need to operate safely and efficiently.



Sectional Focus

Insight into aircraft wheels and brakes

Aircraft wheels are an important component of the landing gear system that supports the weight of the aircraft during taxi, takeoff, and landing. Modern aircraft wheels are typically constructed of two lightweight yet strong aluminium alloy halves bolted together, with the inboard half fitted with keyways to engage the brake discs. The two-piece wheel construction allows tubeless tyres to be sealed between the wheel halves. Aircraft tyres experience tremendous loads and temperatures compared to automobile tyres, requiring specialized construction and nitrogen inflation for optimal performance.

Aircraft tyres are designed to withstand extremely heavy loads for short durations during takeoff, landing, and taxiing. The number of tyres required for an aircraft increases with its weight to distribute the load more evenly.



A330 & A320 Nose wheels.

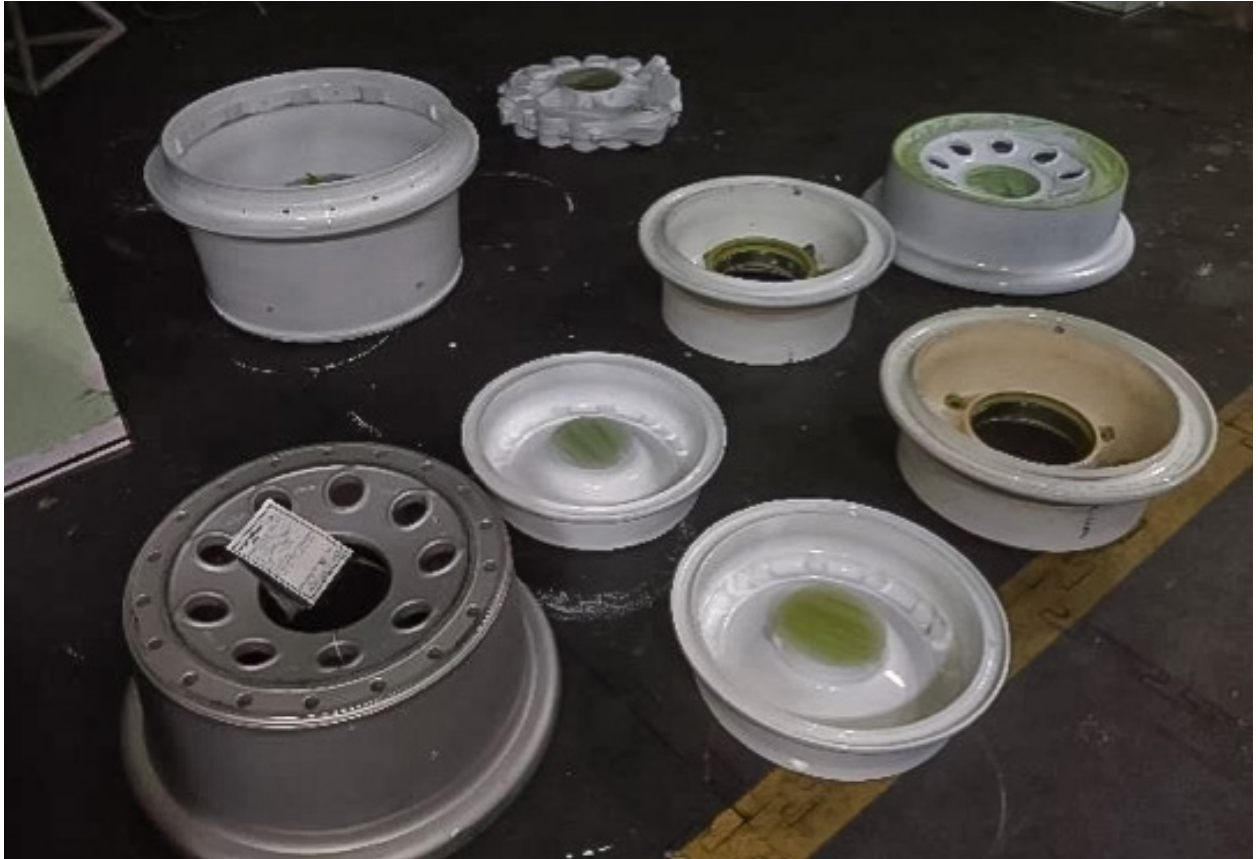
Aircraft tyres operate at high pressures, up to 200 psi (14 bar) for airliners and even higher for business jets. They are typically inflated with dry nitrogen to minimize expansion and contraction from temperature and pressure changes during flight.

Manufacturers

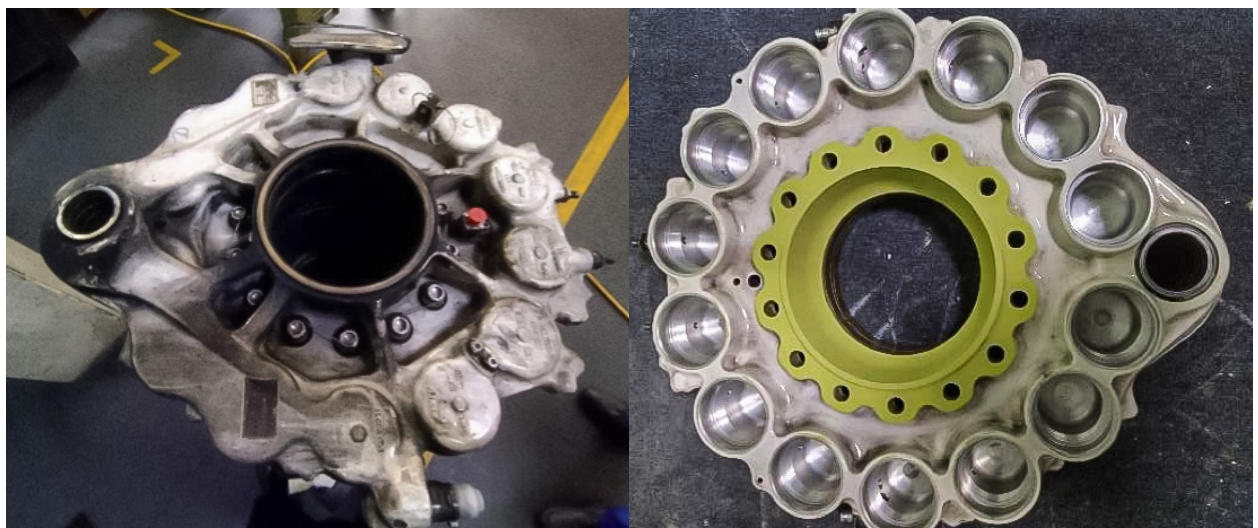
The aircraft tyre manufacturing industry is dominated by a four-firm oligopoly controlling approximately 85% of the market share:

- **Goodyear (United States)**
- **Michelin (France)**
- **Dunlop Aircraft Tyres (United Kingdom)**
- **Bridgestone (Japan)**

Brakes are devices for slowing or stopping the motion of an aircraft or restraining it from starting to move again. All modern aircraft are equipped with brakes, as their proper functioning is relied upon for safe ground operation. The brakes slow the aircraft and stop it in a reasonable amount of time, hold the aircraft stationary during engine run-up, and in many cases, steer the aircraft during taxi. On most aircraft, each main wheel is equipped with a brake unit, while the nose wheel or tail wheel does not have a brake.



A330 Main Wheel halves, A320 Nose Wheel halves & A321 Piston housing.



A330 Brake Piston housing.

Single Disc

Smaller, lighter aircraft will have single-disc brakes in either a fixed or floating configuration. With a single disc brake, hydraulic pressure pushes against pistons located in a non-rotating caliper, pressing brake pads against both sides of the disc to create friction and slow the aircraft.

Dual Disc

If the friction generated by a single disc brake isn't enough, a second disc is added to the setup, creating a dual disc configuration. In a dual-disc brake system, each wheel has two discs connected by a centre carrier with linings on each side.

Multiple Disc

Large, heavy aircraft need more powerful braking systems built on an extended bearing carrier. The carrier holds a series of alternating steel stators and copper or bronze-plated discs, with hydraulic pressure compressing the entire stack to generate high levels of friction and heat to slow the wheel rotation.

Segmented Rotor

The next-generation option for braking systems on large, heavy, and high-performance aircraft is segmented rotor-disc brakes, a variation of the multiple disc system with slots or segmented spaces cut into the rotors to allow heat escape and prevent warping.

In conclusion, aircraft wheels and brakes are critical components that ensure the safety, efficiency, and performance of an aircraft during ground operations. The wheels are designed to support the aircraft's weight, absorb landing impacts, and provide smooth taxiing, while the brakes are essential for controlling speed, enabling effective stopping, and enhancing overall maneuverability on the runway. Advances in materials and technology continue to improve the durability and effectiveness of these systems, contributing to safer and more reliable air travel. Proper understanding and maintenance of these components is vital for aviation professionals to ensure optimal performance and safety of aircraft operations.

Reporting Culture

Making Safety Reporting Easier with a New QR Code



In a significant move to improve safety and streamline the reporting process, the Engineering Safety section of SriLankan Airlines has introduced a new QR code system. This innovative approach allows engineering staff to conveniently submit safety concerns, hazards, and safety related incidents directly from their mobile phones.

Previously, reporting safety issues could take time since it required the filling of forms either on a computer or manually. Now, with the new QR code, safety concerns can be reported right away. Staff only need to find the QR code, which is displayed around the Engineering facility (Line/Base/Workshops/Apron) and scan it with their phones. After scanning, a simple form is displayed, allowing staff to describe what they have noticed, and whether it's a potential safety concern or an incident. The interface is extremely user-friendly, and once completed, the report is instantly sent to the Engineering Safety Section. This helps the Engineering Safety team to address issues right away.

This new QR code system is convenient as it allows the reporting of safety concerns from anywhere using a mobile phone, without the need for a computer. Reporting in real-time means the Engineering Safety team can fix issues faster, preventing small problems from becoming bigger ones. By making it easier to report, it is hoped that all staff will be more proactive about safety, helping the organization to mitigate safety issues at an early stage. This straightforward process will also enable the Engineering Safety team gather better and more detailed information to prevent future incidents.

The success of this QR code initiative is entirely dependent on the staff of the engineering division. All engineering staff are encouraged to use it whenever they come across a safety concern. Immediate reporting is essential to keeping the workplace safe and running smoothly. It is imperative that all engineering staff acknowledge that safety is a collective responsibility. The Engineering Safety section kindly requests all engineering staff to scan the QR code, report any safety concerns, and help the organization ensure continued safety in the workplace.



**GRAB YOUR
MECHANDISE
HERE**

Rs.500



Cap

Rs.4,000



Mens wallet

Rs.2,000



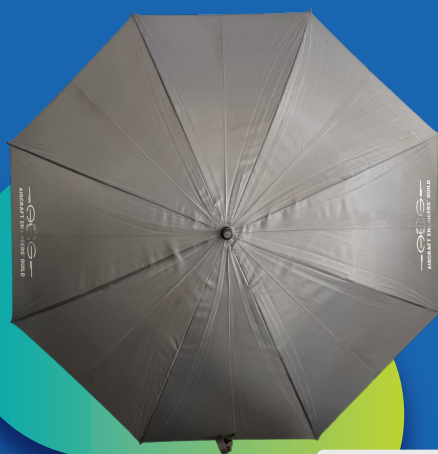
Diary case & Notepad

Rs.2,000



Gift box

Diary | Notepad | T shirt - L | Voucher



AEG Umbrella

Rs.1,000



T shirt
White & Grey

S Rs.400

M Rs.600

L Rs.800

Rs.800



Smart watch

Rs.2,000



Gift box

Diary | Pen | Coffe mug

Rs.1,000



Gift box

Pen | Card holder

Rs.500



Notebook

Rs.800



T shirt
Black - XL

For Purchase

Contact

0774452407 | 0197332017
(Iroshan Perera)

