



AIRCRAFT MAINTENANCE ENGINEER CAREER GUIDE

PATHWAY: -

To pursue a career in Aircraft Maintenance Engineering (AME) under the B1.1 category in Sri Lanka, specifically with the Civil Aviation Authority of Sri Lanka (CAASL) certification, here's a pathway tailored for Prime Aviation:

Following this pathway with Prime Aviation will help you successfully qualify for the CAASL B1.1 certification.
PRIME 147

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IS AIRCRAFT ENGINEERING FOR ME?

Do you love the idea of working with state-of-the-art technology? Do you like to know how things work? Do you enjoy finding practical solutions to problems?

If so, aircraft engineering could be for you!

Aircraft engineers get to work on some of the newest and most powerful flying machines on earth.

As an aircraft engineer, you will always be at the center of things in aviation; no aircraft takes off without being checked and signed-off by an engineer.

An aircraft engineer must be methodical, meticulous and love hands-on work. Aircraft engineers enjoy bringing all their training and experience together to find and fix a physical problem – and of course there is the instant satisfaction of seeing your hard work really take off!

The diversity of aircraft flying today means you will always have something interesting at your fingertips. As an aircraft maintenance engineer (AME – pronounced aye-mee) or licensed aircraft maintenance engineer (LAME – pronounced ‘lay-mee’) you could specialize in checking and maintaining:

- › **Aircraft engines and components** – from simple piston engines to complex microprocessor-controlled jet aircraft engines
- › **Structural integrity** – ranging from wood and fabric to advanced composites and complex metal alloys.
- › **Electrical systems** – some aircraft have the capacity to generate enough energy to power a small town.
- › **Flight management, navigation and communication systems** – utilizing microprocessor, satellite and laser technologies.

To be successful in aircraft engineering, you will need:

- › Strong attention to detail
- › a preference for mathematics and science
- › The ability to work well individually and as part of a team.

If this sounds like you, read on: you could be on your way to a rewarding career helping maintain Sri Lanka’s fleet of private and commercial aircraft, ensuring they operate safely and efficiently.



WHERE COULD A CAREER IN AIRCRAFT ENGINEERING TAKE ME?

Aircraft engineers are in demand by airlines and aviation companies.

You could progress from an apprentice to a licensed professional and there are lots of areas to specialize in. Aircraft engineering could also be a pathway into aeronautical engineering which is a highly theoretical field utilized in the manufacturing side of aviation, as well as in the structures, mechanical and avionic maintenance fields.

Licensed aircraft maintenance engineers are particularly in demand, especially ones who are Australian-qualified. To gain an aircraft engineer's license, you need to meet technical training and proficiency requirements, have an understanding of aviation regulations, legislation and have gained the relevant practical experience.

The more qualifications and variety of engine/system/type licenses you have, the better your employment and career opportunities.

Sri Lanka's aircraft engineer trade qualifications conform to international standards, so you could find yourself working for a global maintenance company with the opportunity to work anywhere in the world.



CAREER PROFILE – Pandula Niyarepola **DIRECTOR/CEO & BEng Aerospace**

During my academic years, I successfully combined my time in both studies and other extra activities in order to gain leadership skills, ability to work as a team, and to experience and prepare myself to take new challenges in the future. With the experience I gain from my career especially last 5 years as a CAM and a QAM made me a confident person who is willing to take up challenges in order to sharpen myself as a team leader and as a team member to ensure a better outcome towards the common goal of an organization. I have the ability to work as an individual and also as a team. I am good in handling pressure and have gained good skills on moral values as well. I am good at adapting to the new and dynamic work places with my experience. Motivational leader and organizational problem-solver with advanced supervisory, team building and customer service skills. Experience stepping into roles and quickly making positive changes to drive company success. Focused on using training, monitoring and morale-building techniques to maximize employee engagement and performance.

AMEs and LAMEs

An aircraft maintenance engineer (AME) works under the direction of a licensed aircraft maintenance engineer (LAME) to carry out servicing and maintenance work. They must meet a range of local and international aviation standards to ensure the aircraft is airworthy.

An AME's job is to maintain and service aircraft:

- › In approved maintenance organizations located in Sri Lanka and
- › In approved maintenance organizations operated by Sri Lanka or overseas companies located overseas.

LAMEs can also carry out servicing and maintenance work, but their main role is to supervise the work of other engineers in the team and sign off on the work, certifying that the job has been completed to the required standard and the aircraft is ready to fly.

In most cases, an aircraft engineering team will be made up of a number of apprentices, aviation maintenance workers, AMEs and LAMEs across different specializations (mechanical, structures and avionics). The ability to communicate clearly and effectively as part of a team is very important for an aircraft engineer.

License types

Civil Aviation Authority of Sri Lanka (CAASL) prescribes licensing for aircraft maintenance engineers under **Part 66** of their regulations. This framework aligns with standards similar to the European Aviation Safety Agency (EASA) Part 66, establishing certification categories, eligibility criteria, and standards for the training and examinations to ensure aircraft safety and airworthiness. Hence any type of aircraft engineering license is known as a 'Part 66 license'.

A LAME can hold a Part 66 license in one or more of the license categories or subcategories once they have met the required technical training and proficiency requirements. To qualify and apply for a license, you must have successfully completed the basic knowledge (theory training) and examinations for the particular category or subcategory of license, through either a CAASL-approved maintenance training organization or via self-study. You will also need to demonstrate a good understanding of the legislation and have gained the relevant basic practical experience for the particular license.



The license categories are:

Category A	Category B1	Category B2
A1 – turbine-engined aeroplanes	B1.1 – turbine-engined aeroplanes	Avionics
A2 – piston-engined aeroplanes	B1.2 – piston-engined aeroplanes	Category C
A3 – turbine-engined helicopters	B1.3 – turbine-engined helicopters	Large aircraft in a base maintenance activity
A4 – piston-engined helicopters	B1.4 – piston-engined helicopters	

Aircraft maintenance engineer licenses are perpetual, but to keep licenses current, aircraft maintenance engineers are required to have 6 months experience in the field during the previous 24 months.

Due to the ever-increasing complexity of aircraft, LAMEs are encouraged to undertake ongoing training, using courses such as those offered by manufacturers, employers or external contractors.

More information about Part 66 licensing can be found on the maintenance personnel licensing page at www.caa.lk



CAREER PROFILE – W. Mudiyanse

CO-FOUNDER & AIRCRAFT MAINTENANCE LICENCED (CAT B1.2)

W. Mudiyanse is a seasoned aviation professional serving as a Director of Prime Aviation. With extensive experience in aircraft engineering, he has successfully overseen numerous high-profile projects, ensuring top-notch safety and performance standards. His expertise includes aircraft design, maintenance, and regulatory compliance, making him a pivotal figure in advancing Prime Aviation's engineering excellence. Chanchala's leadership and technical acumen have significantly contributed to the company's reputation for innovation and reliability in the aviation industry.



STARTING OUT AS AN AIRCRAFT MAINTENANCE ENGINEER?

So, you've decided aircraft engineering could be the career for you – what's next?

Many aircraft maintenance engineers (AME) begin their careers with an airline, the Sri Lankan Air Force or a general aviation maintenance organization. Whether you work in civil aviation or the military, you should focus on studying towards gaining a Certificate IV in Aero skills qualification (trade specific). Although this qualification does not directly qualify for a license issued by CAASL, if completed through a CAASL approved Part 147 Maintenance Training Organization (MTO) it can form part of the pathway toward the issue of a license, provided CAASL examination standards are met.

Once you've gained this level of qualification and are actively maintaining aircraft, you are well on your way towards gaining an aircraft maintenance engineer license issued by CAASL.

Sri Lanka also now has a number of specialized aviation high schools where students can begin aircraft maintenance studies as part of their O/L and A/L.





CAREER PROFILE – SAMAN GUNAWARDENA

**Licensed Aircraft Engineer, Aircraft Maintenance Instructor,
MSc in Aviation Management**

Saman Gunawardena is a seasoned aviation professional with over three decades of experience in aircraft engineering, specializing in maintenance, quality assurance, and regulatory compliance within the aviation industry. With an MSc in Aviation Management from London Metropolitan University, Saman holds a valid Aircraft Maintenance License (AML) endorsed with multiple aircraft types and has substantial experience working in senior management roles.

Professional Experience

- **Deputy Director General-Flight Safety Regulation, Civil Aviation Authority of Sri Lanka (CAASL):** Currently oversees the Airworthiness & Aircraft Registration, Operations, and Personal Licensing divisions, enhancing regulatory compliance and operational standards.
- **Manager, Engineering & Corporate Quality, SriLankan Airlines:** Led quality assurance across multiple departments, ensuring compliance with both local and international standards.
- **Senior Licensed Aircraft Engineer and Licensed Aircraft Engineer:** Played a pivotal role in maintaining and certifying aircraft for SriLankan Airlines, with expertise spanning across several aircraft models including A320, A330, and A340.

Choosing a training pathway

There are 2 training pathway options available to qualify for grant of a Part 66 aircraft engineer license. They are undertaking:

- › Formalized license category training and examination, and assessment of practical experience, conducted by a CAASL approved Part 147 Maintenance Training Organization, or
- › License category training utilizing the Part 66 self-study training and examination pathway, sit relevant Part 66 module (theory) exams and submit to CAASL a practical experience logbook.

More information about the training pathways is available on the 'How to become a licensed aircraft maintenance engineer (LAME)' page on the CAASL website.

Capital cities have well-established training organizations offering aircraft maintenance courses, and in some larger regional centers there may be privately-run or government-funded training organizations. For Part 66 licensing, CAASL will only recognize training and assessments provided by a CAASL-approved Part 147 maintenance training organization. A list of these organizations can be found in on the CAASL website.

It's a good idea to take the time to find a training provider that best meets your specific requirements, and make contact before leaving school or arranging for work experience.



To ensure you have all the information you need before you start, it may be useful to ask the following questions:

- › Is this organization a CAASL-approved Part 147 maintenance training organization?
- › Are there classes near you?
- › What are the entry requirements?
- › Is it possible to tour the facilities?
- › What subjects are they teaching and when?
- › Do they have, or can they arrange, external studies/distance education?
- › Can they help with work experience requirements?
- › When can you start? Do you have to start at the beginning of the year?
- › What are the course fees?
- › Can you apply for government funding?
- › Do they recognize prior learning, training and/or experience?
- › Do they have evening classes?
- › What qualifications do the instructors have?
- › What help is available (student services etc.)?
- › Do they know of any employers willing to take on an apprentice or trainee?
- › Do they offer diploma qualification training courses?
- › What arrangements are in place for people who are training externally or in remote areas to have their experience assessed?
- › Will this assessment cost any more than normal fees?
- › How do you enroll?
- › When do enrolments close?
- › Is it possible to accelerate through the course?
- › Can full-time training be provided?



CAREER PROFILE – Jerry Adrian

Project Manager and General Manager Assistant of Shenyang Gotiar Aircraft Manufacturing Co., Ltd

I am Jerry Adrian from Sri Lanka, graduated from SAU in January of 2012, now working as the Project Manager and General Manager Assistant of Shenyang Gotiar Aircraft Manufacturing Co., Ltd. I would like to share some of my study and work experience in China with you.

My Life at SAU!

Entering a university is a very important and interesting experience in a personal life, but at the same time it is an experience that will change your lifestyle and personality forever. SAU is what stands behind my success today!

Many of us faced challenges in our formative years and we struggled with them. Some of those struggles might have changed who we are or how we later approached life. As for my progress, I am doing surprisingly well at my job. I learnt knowledge from my lecturers at SAU and they were truly supportive. They were always ready to help a student with no hesitation. I have gained enough knowledge from SAU not only academically but also on how to be responsible in life. Being the Vice-Chairman of the SAU Students Union for 3 years I have gained good understanding on how to be a good leader and a team player and also on problem solving.

Students come to SAU to study from national cultures as different to each other as that of Indonesia and Mauritius, and as different to the American culture as those of the Maldives and



South Asia. Language is the main problem as a freshman we face in China. But then, SAU supports students to overcome this language barrier by organizing events, holding Chinese corner, additional Chinese language lessons, forming a bunch of Chinese students as volunteers to teach Chinese in the evenings, and many other activities. We used to face some problems with professors when I was in my freshman year but gradually the English level of the professors also improved with the time. The professors had special English trainings during the vacation by British, Australian and American experts. SAU made life easier for the international students not only to study at SAU, but also to live in China.



Nowadays the world is full of competition. Everybody wants to prove himself best in each and every field. Now, people have become competent. This is because of their knowledge. Some students during their university educations get knowledge by learning in classrooms while others get it by self-study. It does not matter how students increase their competency and knowledge. Only result matters. If I find a choice then I would prefer classroom learning. But having some extra knowledge by reading books from the library may also support you to expand your knowledge in other fields.

Last but not the least, I thank all my professors, Mr.Richard Chen (Dean), Ms.Pearl Liu (Vice-Dean) for all the assistance and encouragement given to me and my batch mates during the 4 years stay at SAU. My life at SAU was the most memorable and best days of my life.

My Job Experience!

My first job after graduating from SAU was started on 6th of Jan 2012 at Shenyang Gotiar Aircraft Manufacturing Co.,Ltd. It was the very next day after I completed my thesis defense at SAU. I was lucky enough to have a job in hand even before I completed my degree at SAU. I was at Gotiar as an intern. SAU arranged the internship program for the students at different companies and 16 of us were at Gotiar for internship for a period of 2 months. After 2-month internship, I officially joined Shenyang Gotiar Aircraft Manufacturing Co.,Ltd as a formal employee. I joined as the Assistant to the General Manager and in March 2012, I was promoted to be the Project Manager. So currently am holding two positions within the company.

I am mainly in charge of Boeing and EADS Airbus projects in the company along with other sub-tier projects with Bombardier and Alenia. My main responsibilities in project department are to lead the planning and implementation of project, facilitate the definition of project scope, goals and deliverables, develop full scale project plans, assemble and coordinate project staff, manage project budget, manage project resource allocation, plan and schedule project timelines, track project deliverables using appropriate tools, provide direction and support to project team, quality assurance, constantly monitor and report on progress of the project to all high level managers, present reports defining project progress, problems and solutions, and so on. Being a project manager in an aviation company is a great challenge.



The work in project department was really a trial for me at the beginning but I believed I could control my work because of the knowledge gained from my university and from my professors about aircraft manufacturing and sheet metal techniques. After 2 months, I took over all my responsibilities in Project department and now I have delivered 2 batches of parts for Boeing B737, B747, and B787. My 1st batch of parts to Airbus A320 Ribs, Fin, and vertical stabilizers will be delivered shortly. Few more Cargo doors and Entry-Exit doors will be shipped to Italy for Alenia project where the fuselage frames for Bombardier Q400 are scheduled to be delivered in September.

You will be able to choose a stream of aircraft engineering to specialize in. This could be:

- › Mechanical
- › Avionics
- › Structures.

Mechanical

Mechanical engineers work on aircraft engines and aircraft systems such as electrical flight controls, undercarriage and braking systems, fuel, hydraulics, cabin pressurization and more. Many of these systems are now computer controlled which means that aircraft maintenance engineers require thorough training in modern aircraft systems technology.

Avionics

Avionics engineers work on aircraft electrical, instrument, communication and navigation systems. These systems include complex computer technology and involve high-tech equipment such as radar, electrical generators, navigation, communications, fly-by-wire, auto flight and digital systems, to name just a few.

Structures

Structures engineers repair and manufacture parts for the body of an aircraft. They may work with high-tech composite materials, ranging from aircraft-grade metals to new generation materials such as carbon fiber, boron and Kevlar, the same materials found in space vehicles and Formula 1 race cars.

Choosing appropriate subjects while you are still at high school will give you a head start into further training. For most courses you must have O/L Maths and English, but it is also preferable to have completed O/L and A/L.

FROM AME TO LAME – HOW DO I GET A LICENCE?

An AME maintains and services aircraft:

- › In approved maintenance organizations located in Sri Lanka, and
- › In approved maintenance organizations operated by Sri Lanka or overseas companies located overseas.

AMEs perform maintenance under the supervision of a LAME. Only LAMEs can certify the completion of maintenance on aircraft, their engines or aircraft systems.

LAMEs work at a more senior level of aircraft maintenance engineering. LAMEs not only carry out maintenance work on aircraft, but may also supervise maintenance carried out by other individuals and certify for completion of that maintenance.

LAMEs are also responsible for issuing a certificate of release to service, which verifies that all maintenance and defects raised during the maintenance event for the aircraft have been carried out to required maintenance instructions and certified by properly qualified individuals and the aircraft is considered to be airworthy for release back into service.

To qualify as a LAME, you will need to meet technical training and proficiency requirements - for example, basic knowledge and basic experience - that are applicable to the category of license being applied for.

Licensing of aircraft maintenance engineers is one means that CAASL uses to maintain the safety of aircraft and air travel, both for the aviation industry and the general public.

The licensing system ensures that all maintenance of aircraft, engines and systems are:

- › Carried out by people who are properly trained, skilled and competent
- › Supervised and certified/signed-off by people who are properly trained, skilled and competent.

CAASL does this by:

- › Specifying that maintenance on aircraft can only be certified by an appropriately qualified LAME
- › Controlling the qualifications an AME must obtain before they are licensed to certify maintenance

- › Controlling who can train and assess the proficiency of an AME to ensure they meet the required standards.

CHOOSING A WORKPLACE

Where you will be working in the aviation maintenance industry is entirely up to you. Here are a few questions to consider:

- › Does the maintenance organization give me the quality and range of experience I need?
- › Does the maintenance organization have an apprentice or traineeship scheme?
- › Will they allow me enough time for my studies?
- › Do the organization's staff seem friendly and helpful?
- › What will my career prospects be once I finish training?
- › What does the organization expect of me?
- › Are there opportunities for overtime and/ or extra work?
- › What sort of reputation do they have?

Time spent researching the experience required to gain a license is very worthwhile. Establish what you need, and talk to prospective employers to find out if they can cater to your requirements.



FURTHER INFORMATION

- › **Airport and Aviation Services Sri Lanka (AASL):** The AASL manages major airports like Bandaranaike International Airport (BIA) and Mattala Rajapaksa International Airport (MRIA), among others. Their site details airport operations, recent developments, and expansions such as the certification of Ratmalana Airport for international operations in 2022, which has boosted connectivity options within the region. More details can be accessed on their official site: [AASL website](#)

[Airport.lk](#)

- › **Civil Aviation Authority of Sri Lanka:** This authority regulates civil aviation operations, safety standards, and air traffic management. Their site offers updates on aviation law, air operator certification, and other regulatory matters essential to industry stakeholders. Visit [Civil Aviation Authority of Sri Lanka](#) for more.
- › **Sri Lankan Airlines:** As the national carrier, Sri Lankan Airlines provides extensive passenger and cargo services across Asia, Europe, and the Middle East, playing a major role in the aviation sector. They also offer domestic air taxi services for scenic travel within the island. For more about their services, see [Sri Lankan Airlines](#).
- › **Fits Air:** Fits Air, Sri Lanka's largest private airline, focuses on cargo services but is expanding into passenger services with plans for regional routes and a growing fleet of Airbus aircraft. Information about their services and expansion plans is available on [Fits Air](#)

[Echelon Magazine](#)

- › **Ministry of Aviation:** The Ministry oversees policies and developments in Sri Lanka's aviation industry, including air service agreements that enhance international connectivity. Recent agreements with countries such as the Netherlands aim to strengthen tourism and trade ties. Visit [Ministry of Aviation](#) for policy updates and strategic plans

[Aviation Ministry of Sri Lanka](#)

These sites provide up-to-date details on Sri Lanka's aviation infrastructure, airline operations, regulatory framework, and future initiatives.

www.primeaviationsl.com

