Global AI Aviation

www.aiinaviation.com

09 - 10 Dec 2025

DUBAI

# AI in Aviation: Revolutionizing the Skies, One Innovation at a Time

| 50+ | 250+ | 24+ | 15+ | 25+ |
|---|---|---|---|---|
| Speakers | Delegates | Sessions | Sponsors | Exhibitors |

## About The Global AI Aviation Summit

The AI in Aviation Summit stands as a premier gathering for thought leaders, innovators, industry experts, and technology providers, all dedicated to exploring the groundbreaking influence of Artificial Intelligence (AI) on the aviation industry. This summit is essential for those who want to understand how AI is not only revolutionizing aviation operations but also significantly enhancing safety, efficiency, and the overall passenger experience. Additionally, it highlights AI's vital role in driving sustainability and fostering innovation, making it a must-attend event for anyone invested in the future of aviation.

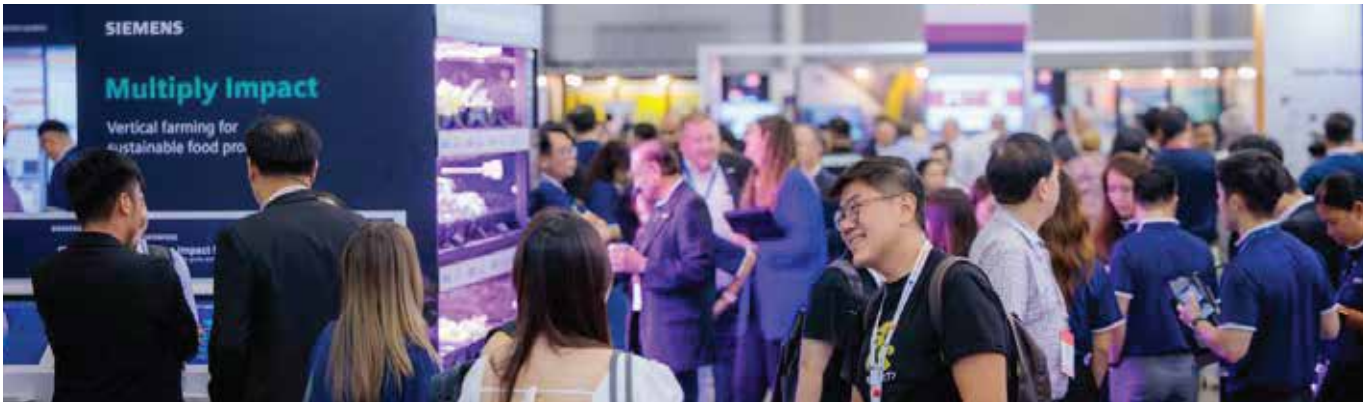
## Why Should They Attend?


**Gain Knowledge & Insights:**
Stay updated on how AI is revolutionizing the aviation industry, from autonomous flight to predictive analytics for better decision-making.

**Networking Opportunities:**
Meet with experts, innovators, and potential partners to exchange ideas, form partnerships, and explore new business opportunities.

## Who Should Attend AI in Aviation Summit?

- Aviation Industry Leaders
- Airline C Level Executives
- Air Traffic Controllers
- Aviation Safety Managers
- Aircraft Manufacturers
- Airport Operators & Managers
- AI & Machine Learning Experts
- Tech Innovators & Startups
- AI/IT Consultants
- Aviation Regulators & Policy Makers



**Practical Takeaways:**
Learn how to implement AI solutions in your organization, including real-world case studies and success stories.

**Explore Investment Potential:**
Discover new opportunities for innovation, collaboration, and investment in AI-driven aviation technologies.

## Who Should Attend AI in Aviation Summit?

- Environmental Agencies
- Researchers & Academics
- Aerospace Engineers & Scientists
- AI Researchers
- Investors & Venture Capitalists
- Investors in Aerospace Technology
- Suppliers of Aviation Technology & Equipment
- Maintenance & Ground Operations Providers
- Journalists and Media Professionals

## Why Should You Sponsor/Exhibit at AI Aviation Summit

- Showcase Your Innovations to a Targeted Audience
- Build Brand Visibility and Credibility
- Position Your Brand as a Key Player in AI and Aviation
- Engage with a Highly Qualified Audience
- Gain Access to Industry Insights
- Demonstrate Your Expertise
- Build Thought Leadership and Industry Authority
- Generate High-Quality Leads
- Network with Key Industry Stakeholders
- Launch New Products or Services
- Maximize ROI with Customizable Packages
- Stand Out from Competitors

# **Conference** Agenda Day-1

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| Timing | Session |
|---|---|
| 0800-0855 | **Registration & Coffee** |
| 0855-0900 | **Welcome Remarks** |
| 0930 – 1015 | **AI & Machine Learning: Accelerating the Advancement of the Global Aviation Industry**<br><br>Artificial Intelligence (AI) and Machine Learning (ML) are transforming the aviation sector, addressing challenges across operations, passenger experience, safety, and sustainability. By leveraging vast amounts of data, these technologies are helping airlines and airports improve efficiency, reduce costs, and enhance service delivery. |
| 1015 – 1045 | **Air Traffic Management Leveraging AI Tools**<br><br>AI has the potential to revolutionize air traffic management (ATM) by enhancing prediction accuracy and leveraging cutting-edge tools to maximize productivity. By optimizing runway traffic, AI can significantly reduce delays, ultimately leading to a smoother and more efficient air travel experience for everyone. |
| 1045 – 1115 | **Airspace Design and Dynamic Airspace Management**<br><br>AI revolutionizes airspace design by creating flexible structures that dynamically respond to traffic demands as they arise. With sophisticated algorithms analyzing traffic patterns, weather conditions, and operational limits, AI can recommend optimal airspace configurations in real time. This innovative approach significantly boosts airspace capacity and effectively alleviates congestion, ensuring safer and more efficient air travel. |
| 1115 – 1130 | **Refreshments & Networking** |
| 1130-1200 | **AI-Based Flight Management System (FMS)**<br><br>A Flight Management System (FMS) automates navigation and flight planning, significantly reducing the workload on flight crews. By integrating Artificial Intelligence (AI), the FMS utilizes real-time data to make dynamic route adjustments based on factors like weather and air traffic, similar to how GPS systems offer alternative routes for drivers. Implementing an AI-enhanced FMS can enhance efficiency, ensure safety, and improve the flying experience. |
| 1200-1230 | **Airport Passenger Flow Monitoring and Analysis**<br><br>AI technology transforms how airlines oversee passenger traffic in airports. It provides real-time insights into the number of arrivals, time spent in different areas, and queue lengths for check-in, security, and immigration. Envision a travel experience without long lines or repeated document checks. With improved flow management, travellers can quickly access the airport using their biometric data, passport details, and facial recognition, ensuring a smoother and more efficient journey. |
| 1230-1300 | **Harnessing AI for Enhanced Air Traffic Control (ATC) Support**<br><br>AI technology is revolutionizing air traffic control, allowing controllers to manage multiple aircraft with remarkable efficiency. Utilizing advanced speech recognition and natural language processing (NLP), AI swiftly transcribes and analyzes communications, identifying potential errors. Additionally, AI systems offer vital recommendations for optimal sequencing and rerouting, enabling quick, informed decisions. |
| 1300 – 1400 | **Networking & Lunch** |
| 1400 – 1430 | **Airport Capacity Forecasting and Resource Allocation**<br><br>AI is transforming the prediction of airport and airspace demand, enabling us to optimize resource allocation with precision. By analyzing trends in passenger volume, flight schedules, and events, we effectively eliminate delays caused by overcrowding. This not only streamlines the travel experience but also ensures maximum efficiency in staffing and equipment usage. |
| 1430 - 1500 | **Maximizing Ancillary Revenue with AI**<br><br>AI is revolutionizing revenue generation by identifying key opportunities for add-ons like baggage fees, seat upgrades, and priority boarding. By leveraging personalization algorithms, we can provide tailored services that enhance customer experience while significantly boosting revenue per passenger. |

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| 1500-1530 | **AI & ML Applications in Dynamic Ticket Pricing** |

Flight prices can vary based on the comparison engine you use, along with factors like departure time, destination, flight distance, and available seats. In fact, ticket costs can change by the minute! Dynamic pricing algorithms leverage machine learning and big data analysis for optimal pricing. While you may have concerns about this approach, it's the most common use of artificial intelligence in aviation, ultimately benefiting consumers by offering competitive rates.

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| 1530 -1600 | **AI-Assisted Pilot Decision Support** |

Empower pilots with cutting-edge, AI-driven insights that significantly enhance decision-making during crucial flight phases. By seamlessly blending air traffic management (ATM) data with onboard systems, this technology provides tailored recommendations for optimal climbs, descents, and rerouting strategies. Experience improved fuel efficiency and heightened situational awareness, ensuring safer and more efficient flights.

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| 1600-1630 | **Networking & Refreshments** |
| 1630 - 1700 | **Facial Recognition for Seamless Check-In and Boarding** |

AI-driven facial recognition systems streamline identity verification during check-in and boarding. AI-powered biometric systems match passengers' faces to passport and visa databases. This helps speed up processes, reduces wait times, and enhances security.

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| 1700-1730 | **AI Solutions for Smart Airports** |

Experience the future of air travel with AI solutions that enhance airport operations and boost passenger satisfaction. AI systems predict queue times, optimize security screening, and streamline terminal navigation. Robotic assistants provide directions and real-time flight information, reducing stress and ensuring a smooth journey. Enjoy a smarter airport focused on your comfort and convenience.

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| 1730-1730 | **Closing Remarks & End of Day 1** |

# Conference Agenda Day-2

| Timing | Session |
|---|---|
| 0800 - 0855 | **Registration & Coffee** |
| 0855- 0900 | **Welcome Remarks** |
| 0930 – 1015 | **Digital Twins in Aviation Maintenance** |

Digital twins for engines, avionics, and other systems revolutionize aviation maintenance by continuously monitoring real-time sensor data. This proactive approach not only anticipates maintenance needs but also significantly reduces unplanned downtime by predicting failures and facilitating condition-based maintenance. Embrace this technology to enhance efficiency and reliability in your operations.

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| 1015 – 1045 | **Harnessing AI for Enhanced Incident Detection and Response** |

AI is revolutionizing the detection and response to emergencies and unusual activities in our airspace. With advanced anomaly detection systems, AI continuously monitors flight data to swiftly identify signs of hijacking, unauthorized drone operations, or technical malfunctions. This powerful technology not only strengthens airspace security but also ensures rapid incident response, safeguarding lives and assets in the sky.

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| 1045 – 1115 | **Applications of AI in Aviation Environmental Impact Assessment** |

AI is revolutionizing emissions monitoring and reduction in aviation. By tracking and analyzing key emissions like $CO_2$, NOx, and contrails, AI reveals trends and opportunities for improvement. Machine learning models assess fuel burn data, flight paths, and operational parameters, enhancing efficiency. AI also optimizes flight routes and altitudes to significantly reduce emissions. This approach not only minimizes greenhouse gases but also supports global sustainability goals, including net-zero targets.

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| 1115- 1130 | **Refreshments & Networking** |

**1130-1200** **Leveraging AI for Airport Environmental Management**

AI is transforming airport operations by taking control of emissions, energy consumption, and waste management. With AI-powered IoT sensors, real-time monitoring of energy use, waste production, and water consumption is crucial for transparency. Predictive analytics reveal key opportunities for greener practices, ensuring compliance with green certifications and boosting environmental reputation. Additionally, AI optimizes the management of electric vehicle fleets, reducing overall environmental impact. Embrace AI technology for a cleaner, more sustainable airport experience.

**1200-1230** **Enhanced Bag Scanning for Safer Travel**

Airport security is essential, and many airports are now adopting AI bag scanning technology to improve safety. AI bag scanners use advanced anomaly detection algorithms to identify prohibited items by analyzing patterns and comparing them to an extensive database of threats. This system highlights items that deviate from the norm, prompting further inspection only when necessary. By reducing errors associated with manual processes and eliminating the need for passengers to dig through their bags, AI bag scanning ensures a higher level of security and convenience for travellers.

**1230-1300** **The Role of AI in Airline Crew Management**

In the competitive airline industry, effective crew management is crucial for maximizing efficiency and reducing costs. AI-powered systems utilize advanced algorithms and machine learning to transform crew scheduling. By analyzing data on crew availability, qualifications, and regulations, these systems create optimized schedules that minimize downtime and enhance crew utilization. Adopting this technology is essential for airlines striving to maintain a competitive edge.

**1300 – 1400** **Networking & Lunch**

**1400 – 1430** **Revolutionizing Airline Fuel Efficiency with AI**

AI is revolutionizing the airline industry by optimizing flight routes, speeds, and altitudes for better fuel efficiency. By analyzing factors like weather, wind patterns, air traffic, and aircraft performance, AI recommends the most efficient paths. Additionally, predictive models use real-time data to dynamically adjust routes, reducing fuel consumption and lowering operational costs. Embracing AI is vital for a sustainable future in aviation.

**1430 - 1500** **Aviation Big Data Processed by AI Algorithms**

The fusion of Big Data and AI algorithms is revolutionizing the aviation industry. By analyzing extensive structured and unstructured data, these algorithms provide critical insights that enhance operational efficiency, improve customer experiences, and strengthen safety. This innovative approach reduces costs and equips decision-makers with essential information for success.

**1500-1530** **Enhancing Airport Security with AI**

Transforming airport security with AI can significantly enhance safety and efficiency. By integrating advanced AI technologies, we can not only bolster existing security measures but also streamline the travel experience for passengers, ensuring a more effortless journey from check-in to boarding.

**1530 -1600** **Predictive Maintenance of Aircraft for Enhanced Efficiency**

Using data from aircraft sensors, AI algorithms can anticipate failures before they occur. This proactive strategy minimizes unplanned downtime, boosts safety, and reduces maintenance costs, making it essential for efficient aviation operations.

**1600-1630** **Networking & Refreshments**

**1630 - 1700** **How AI Transforms Airline Demand Forecasting**

AI analyzes historical and real-time data to predict demand shifts, allowing airlines to adjust pricing dynamically. This approach optimizes revenue during peak times and helps fill seats in off-peak periods, making AI an essential tool for enhancing efficiency and profitability in the competitive aviation industry.

**1700-1730** **Transforming Aviation Planning with AI**

AI is revolutionizing aviation planning by optimizing flight operations, crew management, airport processes, and fleet utilization. This technology offers real-time insights and data analysis, leading to increased efficiency, lower costs, and a superior customer experience. Embracing AI is essential for growth and competitiveness in the industry.

**1730- 1730** **Closing Remarks & End of Day 2**