

3<sup>rd</sup> International Conference on



**Emerging Trends in Aviation MRO Industry**

29 March 2024 (Friday)

Indian Institute of Technology Delhi (IIT Delhi),  
New Delhi, India

Jointly organised by



*Aviakul Group of Companies*



*TRYST IIT Delhi*



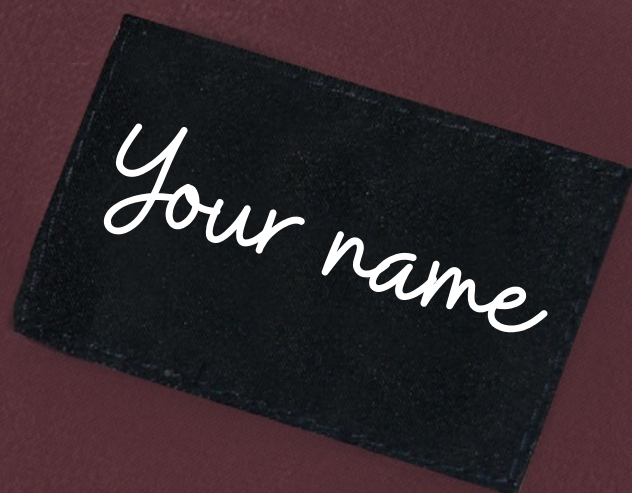
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## WELCOME MESSAGE

Respected Delegates,

It is with great pleasure, on behalf of the Organizing Committee, I take the honor and privilege in inviting you the **3rd International Conference on Emerging Trends in Aviation MRO Industry [EAMRO 2024]** on 29 March 2024 at the Seminar Hall of **Indian Institute of Technology Delhi**, New Delhi, India. This event is jointly organized by TRYST IIT Delhi and Aviakul Group of Companies.

**EAMRO** is an International Conference on Aviation committed to addressing the **Emerging trends in Aviation Maintenance Repair Overhaul** Industry at a global context. In the recent past, Aviation and Aerospace have seen remarkable development in India. Though the progress is significant, the opportunities and possible ventures from the industry are yet to be unmasked. Most people are still unaware of these developments and their impact. The Indian civil aviation sector has grown to become the **3rd largest** in the world in terms of **domestic traffic**.

With several businesses offering various MRO-related tasks for essential hardware including airframes and engines, the MRO industry in India is also rapidly growing. The **MRO sector** is anticipated to more than **triple in size** over the next **3-5 years** to reach roughly **USD 4 billion** as a result of several political actions and greater private participation. Leading OEMs like **Boeing** and **Pratt & Whitney** have worked with Indian enterprises to perform MRO activities in the countries and expand the burgeoning industry by training and strengthening the workforce because of India's potential to become a global aerospace and MRO hub. Notwithstanding India's increasing need for MRO, other nations continue to be a factor in these operations. In the upcoming decades, India is anticipated to become the **Global Hub for MRO** and manufacturing company due to numerous government interventions aimed at lowering the cost of starting up those businesses compared to other nations.

With your contribution and participation, the conference will be a key attraction for the delegates, giving access to the most up to date technology and information in the field and promoting direct contact between delegates and industry representatives. I sincerely believe that the Technical Agenda we have put together will provide rich educational opportunities for all delegates.

It is with great pleasure that on behalf of the Organizing Team, I'm welcoming you to a one-of-its-kind Conference in Indian Aviation. Thank you for making this event a grand success.

Looking forward to joining hands with you!

Thanks & regards,

A handwritten signature in black ink that reads 'Vaibhav Varun' in a cursive script.

**Vaibhav Varun,**  
Event Chairman – EAMRO 2024



## TRYST 2024: Unveiling Innovation at IIT Delhi

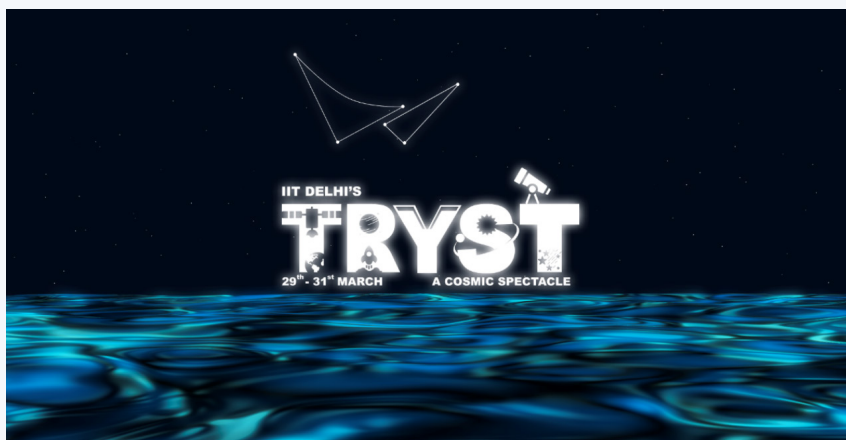
Amidst the bustling energy of the Indian Institute of Technology Delhi (IIT Delhi), the campus witnessed the vibrant spectacle of TRYST 2024, a culmination of intellect, innovation, and inspiration. This annual technical festival, held from March 29<sup>th</sup> to March 31<sup>st</sup>, brought together brilliant minds from across the nation to celebrate the spirit of technological advancement and creative exploration.

Under the overarching theme of “Innovate. Integrate. Inspire.”, TRYST 2024 aimed to foster an environment of collaboration and ingenuity, inviting participants to push the boundaries of conventional thinking and embrace the challenges of tomorrow. With a diverse array of events, workshops, and competitions, the festival provided a platform for students, academicians, and industry experts to exchange ideas, showcase their talents, and ignite a passion for innovation.

The cornerstone of TRYST 2024 was its lineup of engaging events, each designed to cater to a wide spectrum of interests and expertise. From hackathons challenging participants to devise solutions to real-world problems, to robotics competitions pushing the limits of automation and artificial intelligence, the festival offered something for every aspiring technologist and entrepreneur. Workshops conducted by industry leaders provided invaluable insights into cutting-edge technologies, while panel discussions and keynote speeches inspired attendees to envision the future of innovation.

Central to the ethos of TRYST 2024 was its emphasis on inclusivity and accessibility. Recognizing the importance of diversity in driving innovation, the festival actively encouraged participation from individuals of all backgrounds, fostering an environment where creativity knows no bounds. Through initiatives such as mentorship programs and outreach activities, TRYST 2024 sought to empower the next generation of innovators and change-makers, ensuring that the benefits of technological progress are shared by all.

As the curtains closed on TRYST 2024, the echoes of inspiration and camaraderie lingered in the air, serving as a testament to the enduring spirit of exploration and discovery. As participants departed, their minds buzzing with new ideas and their hearts filled with enthusiasm, they carried with them the promise of a brighter future, fueled by the transformative power of innovation. TRYST 2024 had not only been a celebration of technology but a reaffirmation of the boundless potential that lies within each and every one of us to shape a better world.



## EAMRO 2023 PROGRAMME

09:00 Registration & High Tea

10:15 Cultural Performance  
Smt. Arunima Ghosh, Founder, Manasija School of Dance

10:30 Opening Ceremony

**Chief Guest:**

**Lt. Gen. Ajay Kumar Suri,**

Director General & Colonel Commandant, Army Aviation, Indian Army

**Guest of Honor:**

**Gp. Capt. GVG Yugandhar,**

Director General, Aircraft Accident Investigation Bureau, Ministry of Civil Aviation

**Invitees:**

**Shri. Andy Kotwani,**

Chairman, Aviakul Group of Companies

**Shri. Vaibhav Varun,**

Managing Director, Aviakul Group of Companies

**Shri. Pulak Sen,**

Founder & Secretary General, MRO Association of India

11:00 **[PA-01] Panel Discussion**  
**Transformative Technologies Reshaping MRO operations in the convergence of Civil and Military**

*The panel discussion on "Transformative Technologies Reshaping MRO Operations in the Convergence of Civil and Military" will shed light on the unique dynamics of the Indian aviation landscape, where the convergence of civil and military operations presents distinctive opportunities and challenges. The conversation will centre around India's strategic position as it navigates the adoption of advanced technologies such as artificial intelligence, data analytics, and IoT in the context of maintenance, repair, and overhaul (MRO). Experts will delve into the collaborative potential between civil and military sectors to enhance operational efficiency, streamline regulatory compliance, and foster innovation within India's MRO industry. The discussion will also address the role of indigenous technologies and how they contribute to bolstering self-reliance in defence and civil aviation, making this session particularly relevant to the Indian aviation ecosystem.*

**Moderator:**

**Col. Kandadai V Kuber (Retd.),**

Director - Aerospace and Defence, Ernst & Young LLP



## PROGRAM

### Panelists:

**Lt. Gen. Ajay Kumar Suri**, Director General & Colonel Commandant,  
Army Aviation, Indian Army

**Shri. Bharat Malkani**, Chairman, Max Aerospace and Aviation Limited

**DIG Jamal Taha**, TM, Principal Director (Air Material), Indian Coast Guard

**Air Vice Marshal Sanjeeb VSM**, Assistant Chief of the Air Staff  
(Maintenance Plans), (AIR HQ (RKP)), Indian Air Force

**Air Marshal Sukchain Singh (Retd.)**,

Former Air Officer-in-charge Maintenance, Indian Air Force

**12:00**      **Felicitation of Experts and Group Photo**

**12:05**      **Keynote Lecture**  
**Future of IFSCA in Aviation & MRO Industry**

*The Keynote Lecture on the "Future of IFSCA in Aviation & MRO Industry" will delve into the pivotal role of the International Financial Services Centre Authority (IFSCA) in shaping the future landscape of aviation and Maintenance, Repair, and Overhaul (MRO) sectors. Delving into regulatory frameworks, financial services, and investment opportunities, this presentation will offer invaluable insights into how IFSCA initiatives are poised to drive growth, innovation, and global competitiveness within the aviation and MRO industries. As a key enabler of India's vision to become a Global MRO Hub by 2047, IFSCA's policies and interventions will be showcased as catalysts for fostering collaboration, investment, and technological advancement. The presentation underscores IFSCA's commitment to propelling India's aviation and MRO sectors towards unprecedented heights, positioning the nation as a prominent player on the global stage of aviation excellence.*

### Speaker:

**Shri. Ashutosh Sharma**,

Chief General Manager - Development,

International Financial Services Centres Authority (IFSCA)



## PROGRAM

12:25

### [PA-02] Panel Discussion

#### International Collaborations and Investments in Indian MRO

*The panel discussion on “International Collaboration and Investments in Indian MRO” will engage in a comprehensive exploration of the current state and future potential of the Maintenance, Repair, and Overhaul (MRO) sector in India in terms of international collaborations and investments. Participants will delve into the regulatory landscape governing the Indian aviation industry and assess how it influences MRO operations. The conversation will emphasize identifying attractive investment opportunities within the Indian MRO market, including facility expansions, technological advancements, and workforce development. Discussion points will also encompass government initiatives and incentives designed to encourage international participation, as well as strategies for mitigating risks associated with such collaborations. The session will draw insights from successful international partnerships and joint ventures, exploring models that have proven effective in other contexts. Moreover, the panel will consider the transfer of technology and knowledge exchange, addressing the growing demand for skilled MRO professionals in India. By examining success stories, case studies, and emerging trends, the discussion aims to chart a course for the future of international collaboration and investments in the Indian MRO sector.*

#### Moderator:

**Smt. Poonam Chawla,**

Associate Publisher, Air Cargo Update & Founder,  
International Women Board of Directors

#### Panelists:

**Shri. Ajay Kumar,** Managing Partner, KLA Legal

**Cdr. Gautam Nanda,** Associate Partner, Aerospace and Defence, KPMG India

**Shri. Manan Jaisinghani,** Assistant Vice President, Invest India

**Shri. Sandeep Bahl,** Director, U.S-India Aviation Cooperation Program (ACP)

**Shri. Tejaswi Narasimhan,** Advisor & Consultant - Aircraft Sales & Acquisition

13:25

### Felicitation of Experts and Group Photo

13:30

### LUNCH



## PROGRAM

14:30

### [FS-01] Fireside Chat

#### Emerging Trends in Aircraft Material Science and Structural Integrity

*The Fireside Chat will provide a nuanced exploration of the cutting-edge developments that are shaping the very foundation of aircraft construction and maintenance. This session will delve into the forefront of materials science, scrutinizing the latest innovations in lightweight materials, advanced composites, and alloys that are pivotal in enhancing the structural integrity of modern aircraft. Experts and industry leaders will engage in a comprehensive dialogue on the implications of these emerging materials for aircraft design, durability, and safety. The discussion will extend to sustainable material choices, addressing the industry's commitment to environmentally conscious practices. Additionally, the panel will explore advancements in fatigue resistance and the integration of smart materials, ushering in a new era of heightened performance and safety standards. This topic promises to be a focal point for professionals' keen on staying abreast of the transformative trends influencing the future of aviation MRO.*

#### Panelists:

**Shri. Ashwani Sharma,**

Aviation Consultant, Edgevarsity Learning Systems Private Limited of India

**Gp. Capt. GVG Yugandhar,**

Director General, Aircraft Accident Investigation Bureau

14:50

### Keynote Lecture

#### Role of Drones in MRO

*The keynote address will illuminate the burgeoning role of unmanned aerial vehicles (UAVs) in revolutionizing Maintenance, Repair, and Overhaul (MRO) practices within the aviation industry. By leveraging drones for inspections, surveys, and maintenance tasks, MRO operations stand to benefit from increased efficiency, reduced downtime, and enhanced safety protocols. The integration of drones into MRO workflows signifies a paradigm shift towards automation and precision, offering significant cost savings and operational advantages. This discussion aligns seamlessly with the conference's overarching theme, "India 2047: A Global MRO Hub," as it underscores how the adoption of drone technology positions India as a frontrunner in embracing innovative solutions for MRO excellence. Drones emerge as a pivotal tool in India's journey towards becoming a global leader in MRO services, driving efficiency, reliability, and competitiveness within the aviation sector.*

#### Speaker:

**Shri. Aman Johri,**

Chief Executive Officer, Jatayu Unmanned Systems



## PROGRAM

### 15:05 [FS-02] Fireside Chat Circular Economy in Aviation MRO

*This Fireside Chat will illuminate the transformative concept of a circular economy within the Maintenance, Repair, and Overhaul (MRO) sector of aviation. The session will underscore the imperative of sustainability by exploring innovative approaches to aircraft end-of-life management and component recycling. Experts will delve into the strategic use of advanced materials, such as composites and alloys, to optimize durability and performance while minimizing environmental impact. The discussion will extend to the principles of a circular supply chain, emphasizing the importance of reusing, repurposing, and recycling materials in the MRO process. Attendees can anticipate insights into successful practices that align economic growth with environmental stewardship, shaping a future where the aviation industry embraces circular economy principles for a more sustainable and eco-friendlier MRO.*

#### Panelists

**Shri. Bishnu Charan Behera,**

Technical Advisor / Consultant, Ministry of Civil Aviation

**Shri. Mangalam Pandey,**

Lead - Technical Services, Air India Limited

### 15:25 Keynote Lecture Feature Presentation by Autotrade Aviation

*The featured presentation by Autotrade Aviation Private Limited will shine a spotlight on the company's extensive capabilities and innovative solutions within the aviation industry. As a prominent sponsor of the conference, Autotrade Aviation will demonstrate its expertise in providing comprehensive MRO services, cutting-edge technologies, and advanced equipment. Through this showcase, attendees will gain insights into Autotrade Aviation's commitment to excellence, reliability, and customer satisfaction. The presentation will underscore the company's pivotal role in driving forward India's vision to become a Global MRO Hub by 2047, showcasing its contributions to fostering innovation, efficiency, and competitiveness within the aviation MRO sector. Autotrade Aviation's participation exemplifies its dedication to shaping the future of aviation maintenance through unparalleled expertise and forward-thinking solutions.*

#### Speaker:

**Shri. Akshay Kumar,**

Quality Manager, Autotrade Aviation Private Limited

### 15:40 Closing Ceremony

### 16:00 Photo Session

## END OF PROGRAM & NETWORKING TEA





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## INVITED EXPERTS



### **Lieutenant General Ajay Kumar Suri**

Director General & Colonel Commandant,  
Army Aviation, Indian Army



### **Shri. Ajay Kumar**

Managing Partner  
KLA Legal Advocates & Solicitors



### **Shri. Akshay Kumar**

Quality Manager,  
Autotrade Aviation Private Limited



### **Shri. Aman Johri**

Chief Executive Officer,  
Jatayu Unmanned Systems



### **Shri. Ashutosh Sharma**

Chief General Manager - Development,  
International Financial Services Centres Authority  
(IFSCA)



### **Shri. Ashwani Sharma**

Aviation Consultant  
EdgeVarsity Learning Systems





**Shri. Bharat Malkani**

Chairman,  
Max Aerospace and Aviation Limited



**Shri. Bishnu Charan Behera**

Technical Advisor / Consultant,  
Ministry of Civil Aviation



**Cdr. Gautam Nanda (Retd.)**

Associate Partner,  
Aerospace and Defence, KPMG India



**Group Captain GVG Yugandhar (Retd.)**

Director General,  
Aircraft Accident Investigation Bureau,  
Ministry of Civil Aviation



**DIG Jamal Taha, TM**

Principal Director (Air Material),  
Indian Coast Guard



**Air Vice Marshal KAA Sanjeeb VSM**

Assistant Chief of the Air Staff (Maintenance Plans),  
(AIR HQ (RKP)), Indian Air Force





### **Colonel Kandadai V Kuber (Retd.)**

Director – Aerospace and Defence  
Ernst and Young LLP (EY)



### **Shri. Manan Jaisinghani**

Assistant Vice President,  
Invest India



### **Shri. Mangalam Pandey**

Lead – Technical Services  
Air India Limited



### **Smt. Poonam Chawla**

Associate Publisher,  
AirCargo Update & Founder,  
International Women Board of Directors



### **Shri. Sandeep Bahl**

Director,  
U.S-India Aviation Cooperation Program (ACP)



### **Air Marshal Sukchain Singh AVSM, VSM (Retd.)**

Former Air Officer-in-charge Maintenance  
Indian Air Force



### **Shri. Tejaswi Narasimhan**

Advisor & Consultant,  
Aircraft Sales & Acquisition

## ORGANIZING COMMITTEE

### PATRON

**Shri. Andy Kotwani, Chairman,**  
Aviakul Group of Companies, Moscow, Russian Federation

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### CHAIRMAN

**Shri. Vaibhav Varun, Managing Director,**  
Aviakul Group of Companies, New Delhi, India

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### CONVENOR

**Shri. Praveen Sankaran, C. Eng (India), General Manager,**  
Aviakul Group of Companies, New Delhi, India

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### ORGANIZING SECRETARY

**Shri. Pushpendra Kumar Mishra, Marketing Head,**  
Aviakul Private Limited, New Delhi, India

**Shri. Kokulakrishnan Jeganathan, Business Development Head,**  
Aviakul Private Limited, New Delhi, India

**Shri. Kaisar Alam, Drone Directorate,**  
Aviakul Private Limited, New Delhi, India

**Shri. Shreyash Bhargava, Business Development Officer,**  
Aviakul Private Limited, New Delhi, India

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### MEMBERS

**Shri. Vipul Chirantan, Junior Executive – Legal,**  
Aviakul Private Limited, New Delhi, India

**Smt. Jyoti Gupta, Administrative Analyst,**  
Aviakul Private Limited, New Delhi, India

**Smt. Pammi Ojha, Administrative Executive,**  
Aviakul Private Limited, New Delhi, India

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## ABOUT AVIAKUL GROUP OF COMPANIES

In the last few years, aviation and aerospace have seen remarkable development in India. Though the progress is significant, the opportunities and possible ventures from the industry are yet to be unmasked. Most people are still unaware of these developments and their impact. Bridging this gap is Aviakul Aviation Academy, a brainchild of aviation enthusiasts. With zeal to create a self-reliant Aerospace ecosystem, Aviakul elegantly leads the phenomenal transformation of aerospace and aviation, imbibing global outreach.

Aviakul translates to “Home of Aviation,” and strives to lead the exceptional developments in the industry, absolutely justifying its name. The organization works towards its goals with a firm belief that the intended transformation could be possible through three key directions - Personnel, Network, and Indigenous Development.

The Word Aviakul stems from the amalgamation of two classic Languages. Avia, a latin word which means Flight or To Fly and Kul, a Sanskrit word which means Home, Family or Community. Hence our motto the Home of Aviation

Aviakul has been established by young Aviation Professionals and Business Leaders with years of market experience, with the sole agenda of pioneering the transformation to bring Self-reliance in Indian Aviation Ecosystem. Pioneering the transformation in Aerospace & Aviation can be achieved with three major avenues.

**Training Academy** Transformation in any industry can be sustained only with a qualified, well trained and skill equipped personnel. Aviakul aims to train, educate & equip skilled Aviation Personnel through its Aviation Academy. The concept of ecosystem where one’s output is being fed into other’s input is being implemented right at the grass-root level of training. Programs are designed to co-exist around each other, thereby making the candidates aware of their work environment from ab-initio.

**Aviation Outreach** Unfortunately, Aviation in India is still not within common man's reach. Though we are born to fly, we merely glare at the Sky. Making people aware of Aviation and taking the knowledge down to the grass-root level is a lifelong mission for Team Aviakul. Only when as a society, as a community, we are conscious about Aviation, we will be able to make wonderful strides in that field. With this noble mission in mind, Aviakul organizes several outreach activities including Events, Conferences, Webinars, Training Workshops, thus enabling the reach of knowledge to the grass-root level of our nation

**Indigenous Development** A Nation's true strength is evident from its capacity to stand on its own. True Atmanirbhar (Self-reliance) can happen only when the environment is conducive enough for the young brilliant minds to create their products and put them into the market. Aviakul firmly believes in penetrating the Sector with self-reliant philosophies that actually can make India a global leader in Aviation. With this mission in mind, Aviakul aims to establish a Research & Development facility that can conceive, design, develop, manufacture and produce indigenous Aviation Technology starting from as simple as a Basic Training Aircraft to as complex as a Sixth Generation Stealth Fighter Aircraft.

#### PROGRAMS OFFERED BY AVIAKUL AVIATION ACADEMY

- Commercial Pilot License
- Private Pilot License
- Ground Classes for CPL/PPL License
- License Conversion
- Cabin Crew Training
- Aviation Certification Courses
- Drone Pilot (Remote Pilot / UAV Pilot)

## KEY ACTIVITIES IN AVIAKUL OUTREACH PROGRAM

- Industrial Congresses, Conclaves & Conferences
- Seminars
- Guest Lectures
- Webinars
- Forums
- Workshop
- Hands on Training

## KEY ACTIVITIES IN AVIAKUL SYSTEMS

- Research & Development of key Technologies
- Design Bureau
- Transfer of Technology
- Facilitation of Projects between countries
- University Collaborations



**Academy**



**Outreach**



**Systems**



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### **Conference Secretariat**

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