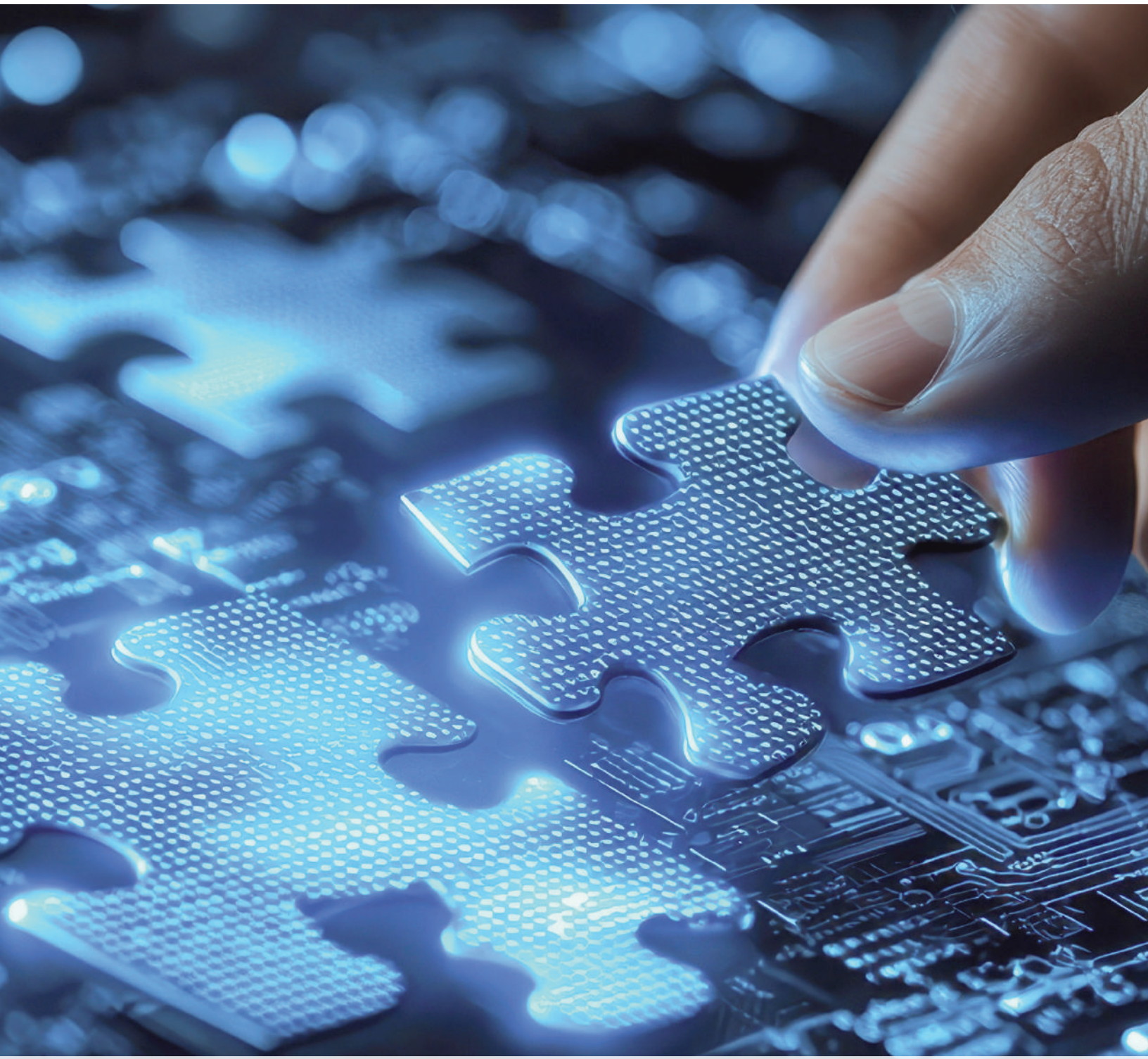


Quiddity Technology Solutions Inc

CONTRIBUTING TOWARDS A SAFE WORLD

WHO ARE WE?

Our organization brings a combined 50+ years of **System and Functional Safety** process development, engineering system design and certification experience in the Aerospace, Automotive, Medical Device and Naval Industries.

Our focus is to assist our clients in effective and efficient product development and maintain safety integrity during entire product safety life-cycle. We work with our clients in bringing their conceptual ideas to reality with safety as an integral part of development.

MISSION

Driving Safety Excellence in the portfolios of our clients

At QTSI, our commitment extends beyond mere compliance; we actively collaborate across industries to elevate safety practices. By integrating robust safety standards such as ARP 4761, ISO 26262, ISO 14971, and IEC 61508, we ensure that our client's products not only meet regulatory requirements but also stand out in the marketplace with reduced liability risks.

VISION

Empowering a Safer Tomorrow

Our vision is to create a world where cutting-edge technology coexists harmoniously with safety. We envision a future where every product, system, and solution adheres to the highest Functional and System Safety Standards, ensuring the well-being of individuals, communities, and the environment.

OUR VALUES

S - SINCERITY

H - HUMILITY

A - ALACRITY

P - PROFESSIONALISM

E - ETHICAL

AEROSPACE

ARP4761

ARP4754A

What We Do:

- **Aircraft Safety Program Planning:** We prepare clear, structured Safety Program Plans (SPPs), defining deliverables and responsibilities across stakeholders.
- Functional Hazard Assessments (AFHA/SFHA) and Preliminary/System Safety Assessments (PASA/PSSA/SSA/ASA) are performed to establish and validate safety requirements.
- **Design Analysis:** We conduct CCA; CMA, PRA, and ZSA, ensuring systems meet performance and safety targets.
- **Certification Support:** Compliance with RTCA/DO-254, DO-178, DO-326 and DO-356 is integrated into the development process.
- **Validation & Verification:** Safety objectives are validated and verified against ARP4761 expectations to ensure full traceability and implementation correctness. Lifecycle management with Polarion, DOORS

Achievements:

- Design and Certification of 2 new aircraft development projects
- Collaboration with one of the top industry leader in e-VTOL, Advanced Air Mobility (AAM) Vehicle
- Supporting certification and testing of Remotely Piloted Aircraft System (RPAS)

Why QTSI?

By combining technical rigor with industry tools, we help clients build safer, certifiable airborne systems faster and more efficiently.

INDUSTRIES WE SERVE

AUTOMOTIVE

ISO 26262

What We Do:

- **Safety Analysis Support:** We cover all phases from Item Definition and HARA to Technical Safety Concept, system integration, and safety validation.
- **ASIL-Oriented Development:** We assist in ASIL decomposition, FSC/TSC development, and safety goal definition in compliance with ISO 26262.
- **Detailed Safety Analyses:** We perform FTA, FMEA, FMEDA, to evaluate design integrity and fault tolerance.
- **Requirement Traceability & Toolchains:** Using DOORS, Ansys Medini, and Polarion, we ensure complete traceability and alignment with functional and technical safety requirements.
- **Verification & Validation:** We verify implementation correctness through confirmation measures, test coverage metrics, and interface-level testing.
- **Supporting Processes:** Developing Development Interface Agreements (DIAs), configuration management, supporting software tool qualification and hardware component evaluation.

Achievements:

- Integrating the safety process according to ISO 26262, with IATF 16949 through a process flow chart with exit gate criterions
- Achieving ASIL C using safety analysis for Inverter Generator system.
- Integrating safety process and conducting safety analysis as per ISO 26262 for Automated People Mover System

Why QTSI?

With a strong foundation in standards and tool-based workflows, Quiddity ensures safer, smarter mobility systems are delivered with confidence.

MEDICAL DEVICES

ISO 14971

What We Do:

- **Risk Management Planning:** Define risk related activities and establish risk acceptability criteria early in the development lifecycle.
- **Risk Assessment:** Use Preliminary Hazard Analysis (PHA), FMEA, and other tools to assess hazards based on severity and likelihood.
- **Risk Control Measures (RCMs):** Implement and verify control strategies that reduce residual risk to acceptable levels.
- **Characteristics related to Safety:** Identify safety related device characteristics related to safety and establish boundaries for safe operation.
- **Post-Market Surveillance:** Monitor production and post-production feedback to update risk assessments and benefit risk evaluations.
- **Audit & Certification Support:** Compile Risk Management Files, Compliance Matrices, and Risk Management Plans to meet regulatory demands, including FDA, Health Canada and CE certification.

Expertise:

- **Standards:** ISO 14971, IEC 62304, IEC 62366
- Certification of radiotherapy machines for Oncology Treatment.
- Assessment of SOUP (Software of Unknown Provenance)

Why QTSI?

With domain knowledge and tool-supported workflows, Quiddity ensures that medical innovations are not only effective, but demonstrably safe and certifiable.

INDUSTRIAL AND OTHER SYSTEMS

IEC 61508
MIL STD 882E
EN 5021X
IEC 61511

What We Do:

- **Functional Safety Management:** From concept to decommissioning, we establish detailed safety plans and manage the entire safety lifecycle.
- Conduct Hazard and Risk Analysis (HRA) in accordance with IEC 61508 to assign the required Safety Integrity Levels (SIL) and define risk reduction measures based on tolerable risk criteria.
- **Software Tools & Testing:** Recommend toolchains for lifecycle management; support validation through test plans including fault-injection and functional tests.
- **Sector-Specific Support:**
  - Defense: Safety Cases, Risk Mitigation, MIL-STD-882E compliance
  - Naval: Certification for marine systems using IEC 61508 & MIL-STD-882E
  - Rail: Safety engineering per EN 5021x, ASCE 21-21
  - Industrial Machinery: SIS Design and lifecycle per IEC 61511

Achievements:

- Supporting OEMs in achieving certification via agencies like TUV and UL.
- Performing FMEDA and FMECA of hardware components of E/E/PE system comprising of over 2000 components

Why QTSI?

Whether it's a machinary or a rail system , Quiddity delivers scalable, certifiable safety strategies that make the everyday world a safer place.

INDUSTRIES WE SERVE

MEET OUR TEAM

Salim Ali

Director, Functional Safety Head

A seasoned Professional Engineer with 20 years of experience in New Product Development, R&D, and Project Management. With 17 years in Product Safety & Reliability and 3 years in Aircraft Cyber Security, he has worked across Aerospace, Automotive, Medical Devices, and Defense. Salim is a certified Functional Safety Engineer, holding a Master's from the University of Western Ontario.

Israel Borges

Advisor

With over 25 years of hands-on experience in commercial aviation industry, Israel's expertise lies in various roles and function in Safety and Maintainability Engineering. He has worked with leading aircraft manufacturers in Brazil, Japan and Canada, contributing to the definition of maintenance requirements for various aircraft types using MSG-3 methodology.

Ramandeep Singh

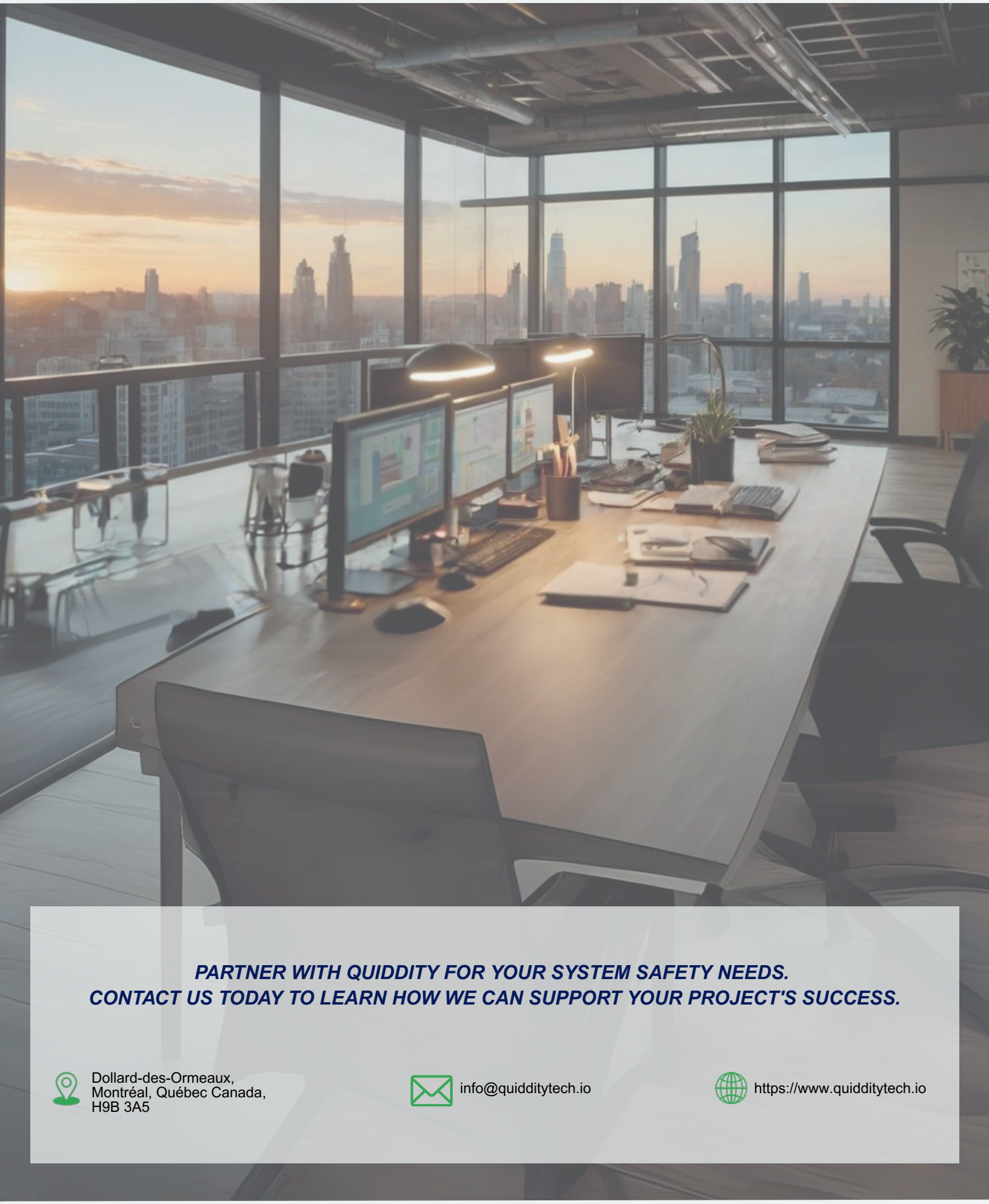
Project Manager, Functional Safety Lead

A Functional Safety Engineer with 5 years of industry experience, specializing in new product development, hazard analysis, and safety assessments in Automotive, Aerospace, and Safety-Critical Systems. He holds a Master's from Concordia University and is a certified Automotive Functional Safety Professional.

Harshal Vaid

System Safety Analyst

An Aerospace System Safety Engineer with expertise in ARP4761, ARP4754A, FMEA, and FTA. He focuses on safety compliance for Advanced Air Mobility (AAM) vehicles. Beyond technical work, he drives business development, digital strategy, and led the redesign of QTSI's website. He holds a Master's from Concordia University.



PARTNER WITH QUIDDITY FOR YOUR SYSTEM SAFETY NEEDS.
CONTACT US TODAY TO LEARN HOW WE CAN SUPPORT YOUR PROJECT'S SUCCESS.

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