

Professional Certificate in Sustainability Strategy & Management in Aviation

Thursday, February 6 & Friday, February 7, 2025 Executive Dining Room JSOM 1.606









Professional Certificate in Sustainability Strategy & Management in Aviation

Agenda - Day 1

08:15 Check-In & Breakfast

08:45 UTD Welcome

• Executive Education Dean John Barden, UT Dallas

09:00 UTD Sustainability Contributions

- Usman A. Ghani, UT Dallas & ConfluCore
- Ramesh Subramoniam, UT Dallas
- Inessa Yurchenko, UT Dallas

10:30 Break

10:45 MIT En-Roads Simulations

Krystal Noiseux, MIT Climate Policy Center

12:15 Supply Chain & Al

• Stefan Boehmer, Körber

12:40 Supply Chain Traceability & Al

• Tara Gupta, Map-Collective

13:15 Lunch

14:00 Aviation CO2 Reduction

Samar Khan, TripAl Technologies

14:30 CBRE Energy Management

• Naveena Allampalli, CBRE

14:50 AI & IOT for Sustainable Future

• Syed Haris Raza, dnata

15:10 Airline Efficiency Improvements

Matthew Fischbacher, SAF Path

15:30 Break

16:00 Fuel Efficiency & Emissions Reduction

John Lovenburg, BNSF Railway

17:00 Happy Hour Reception

Professional Certificate in Sustainability Strategy & Management in Aviation

Agenda - Day 2

08:15 Breakfast

08:45 Electric Hybrid Aircraft

• Jean Botti, VoltAero

09:30 Women Leaders in Sustainability

- Jill Blickstein, AA CSO
- Kelley Kline, Toyota Motor
- Kay Shelton, DART
- Krista Johnson, Johnson Matthey
- Linda Valdez Thompson, Valdez Thompson Consulting

10:45 Break

11:00 Johnson Matthey Success Story

Krista Johnson, Johnson Matthey

11:30 DFW Airport Success Story

Sandy Lancaster, Dallas-Fort Worth Airport

12:00 Best Practices and Industry Case Study

- Caitlin Holland, DART
- Geoff Barker, Toyota Motors
- Masood Khan, TE Connectivity

12:45 Lunch

13:30 Sustainable Aviation Fuel (SAF) and Innovation

Jeffrey Skinner, Eaton

14:15 Business Dynamics & Systems Thinking

• Usman A. Ghani, UT Dallas & ConfluCore

15:30 Break

15:45 Developing and Implementing a Sustainable Action Plan

• Ross Houghton, Accelya Group

16:30 Certificate Ceremony

John Barden

Associate Dean Executive Education Naveen Jindal School of Management

Opening Address & The Importance of Sustainability

John Barden set the stage for the event with an inspiring opening address, emphasizing the critical role of sustainability in aviation and the significance of industry collaboration in driving change. He highlighted the Naveen Jindal School of Management's commitment to sustainability, showcasing how its initiatives and research have been pivotal in advancing sustainable business practices. The event also underscored the importance of the certified course, equipping professionals with the knowledge and skills needed to navigate the evolving landscape of sustainable aviation and drive meaningful impact in the industry.



Rhonda Bush

Director, Global Leadership MBA Program Naveen Jindal School of Management

Opening Address & The Importance of Sustainability

Rhonda Bush set the stage with an inspiring opening address, introducing the event's mission to drive sustainability in aviation. She emphasized the importance of research, innovation, and collaboration, encouraging participants to engage with industry leaders and academic professionals in shaping greener skies. Her session outlined the event's objectives, reinforcing a shared commitment to transforming aviation through sustainable strategies and cutting-edge advancements.



Usman Ghani

Chairman, ConfluCore, LLP
Advisor to Dean
Naveen Jindal School of Management

Usman A. Ghani opened the event with an introductory presentation on aviation ecosystem sustainability, highlighting the intersection of system dynamics, artificial intelligence, and sustainability in aviation and transportation. He defined sustainability as a holistic, systemic approach that balances social equity, economic feasibility, and ecological soundness through dynamically-tested policies and interconnected strategies. He also introduced the concept of superior success in sustainability, emphasizing the importance of accumulations, feedback loops, nonlinearities, and qualitative effects—often overlooked but critical factors in driving long-term impact. His presentation set the stage for a deeper exploration of sustainability challenges and solutions across the aviation industry.



Ramesh Subramoniam

Professor of Practice, Operations Management Naveen Jindal School of Management

Sustainability, Technology and Aviation Addressing the Challenges for a Greener Future

Ramesh Subramoniam discussed the key environmental challenges in aviation, including carbon emissions, noise pollution, and fuel consumption. He highlighted emerging solutions such as Sustainable Aviation Fuels (SAFs), electric and hybrid aircraft, and improved air traffic management systems. He also provided insights into global sustainability trends, emphasizing the financial and technological transformations shaping the industry.



Inessa Yurchenko

Lecturer

Department of Sustainable Earth Systems Sciences School of Natural Sciences and Mathematics

CO₂ Emissions: Understanding the Past to Predict the Future

Inessa Yurchenko provided a data-driven analysis of CO₂ emissions, explaining how aviation contributes 2-3% of global CO₂ emissions and at least 3.5% of full greenhouse impacts. She explored Earth's climate system, emphasizing natural and human-induced carbon cycles and their impact on global warming. She highlighted the urgency of emissions reduction and the critical role of sustainable solutions in mitigating climate change.



David Hyndman

Dean

School of Natural Sciences and Mathematics

David Hyndman from UT Dallas presented groundbreaking research on integrating remote sensing and hydrologic models to address the growing challenges of sustainable water, energy, and food. He highlighted declining groundwater levels and the need for innovative irrigation solutions, such as LEPA technology and solar-powered agriculture, to enhance efficiency and sustainability. His session emphasized science-driven solutions to support climate resilience and resource conservation, ensuring a sustainable future for agricultural and water management systems.



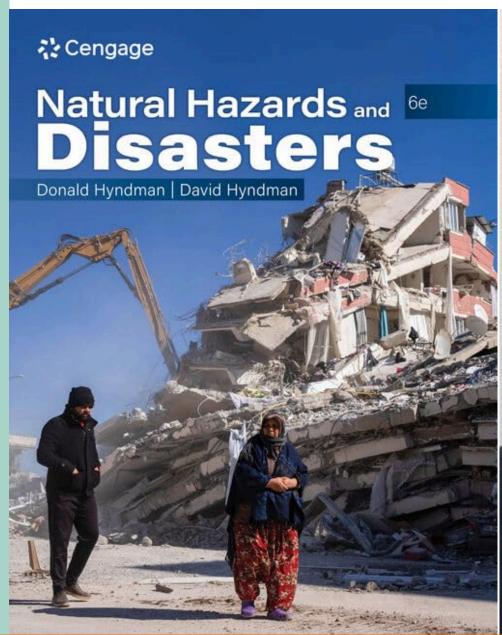
David Hyndman

Dean

School of Natural Sciences and Mathematics

Natural Hazards and Disasters by David Hyndman

We showcased David Hyndman's book, *Natural Hazards and Disasters*, highlighting its exploration of the geological processes behind natural disasters and their impact on society. The book provides accessible, up-to-date information on recent disasters worldwide, helping readers analyze potential hazards and develop effective mitigation strategies to minimize physical and financial risks. His work serves as a valuable resource for understanding and preparing for natural disasters in an ever-changing world.





Krystal Noiseux

Associate Director
Climate Pathways Project
MIT Sloan School of Management

Simulating the World! A practical application run to develop an understanding of climate change decisions

Krystal Noiseux introduced En-ROADS, a climate simulation tool that helps organizations understand the impact of policy decisions on climate change. She facilitated discussions on energy systems, carbon emissions, and sustainable policy-making, providing a hands-on approach to decision-making for a greener future.



Stefan Boehmer

Executive VP & CFO, Board Member Körber Supply Chain

This session focused on the role of digital transformation in sustainability. The speakers highlighted corporate ESG commitments, Al-driven supply chain traceability, and digital optimization. They discussed how companies can reduce CO₂ emissions, enhance resource efficiency, and comply with global sustainability standards through advanced Al and data-driven insights.





Tara Gupta

Founder, CEO Map-Collective

Supply Chain Traceability, Scope 3, and Sustainable Sourcing (with AI)

Tara Gupta explored the challenges of supply chain traceability and emissions tracking, emphasizing Al-driven solutions for procurement and sustainability reporting. She highlighted how agentic Al models can optimize supplier selection, automate emissions tracking, and enhance end-to-end supply chain visibility to ensure compliance with global sustainability standards.

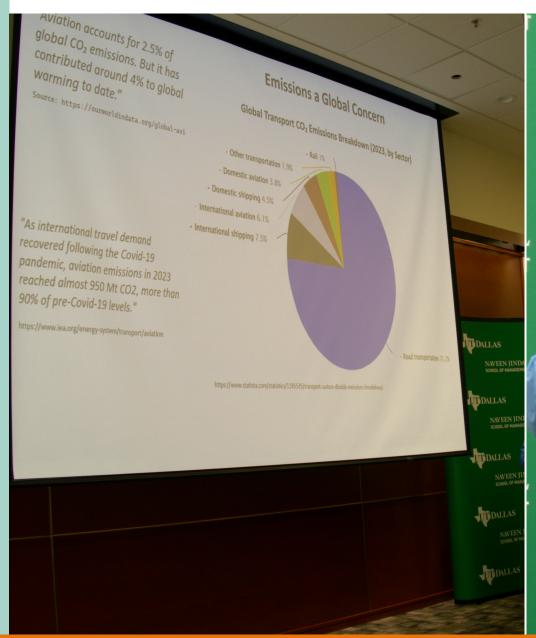


Samar Khan

Founder & Chief Sustainability Officer
TripAl Technologies

Aviation & Corporate Sustainability

Samar Khan showcased Al-driven solutions for aviation emissions reduction, focusing on fuel efficiency, predictive modeling, and compliance automation. He demonstrated TripAl's CG-based fuel optimization for wide-body aircraft and highlighted CORSIA and EU ETS for regulatory compliance. He also presented a use case where TripAl helped a Cyprus-based airline track and predict carbon emissions using Al-driven reporting and analytics.





Samar Khan

Founder & Chief Sustainability Officer
TripAl Technologies

Aviation & Corporate Sustainability

Samar Khan emphasized that corporate sustainability is no longer optional—it's a necessity. He highlighted how AI enables organizations to calculate, monitor, report, and predict carbon emissions across Scope 1, 2, and 3. He also discussed how TripAI helps businesses of all sizes track and predict emissions. Additionally, he introduced TripAI's GenAI-powered chatbot, which allows users to access emissions-related data and insights through natural language queries, making sustainability data more accessible and actionable.



Samar Khan

Founder & Chief Sustainability Officer
TripAl Technologies

Aviation & Corporate Sustainability

Samar also spoke about iAviaSafe, an Al-driven aviation safety platform launching soon. Designed to enhance risk management and compliance, it automates safety data processing, real-time risk prediction, and compliance tracking. With Al-driven insights and live dashboards, iAviaSafe ensures safer, smarter, and more efficient aviation operations.

iAviaSafe





Naveena Allampalli

Sr. Director Al/Gen Al Solutions and Al Architecture CBRE

Introduction to Al Agents and their Role in Sustainability

Naveena Allampalli introduced Al-driven autonomous agents as a gamechanger in sustainability management. She explained how Al-powered agents can optimize energy consumption, automate emissions tracking, and improve ESG reporting. Her session detailed how machine learning, IoT, and agentic models are shaping the next generation of sustainable operations across industries.



Syed Haris Raza

Vice President of Cargo - US Region dnata

Syed Haris Raza from dnata led a compelling session on the future of sustainable cargo logistics and supply chains, emphasizing the integration of AI, IoT, and RPA to drive eco-friendly innovations. He highlighted how data-driven insights enhance efficiency, reduce environmental impact, and promote circular supply chains in industries like pharma and e-commerce. His presentation explored the intersection of technology and sustainability, showcasing how businesses can balance profitability with environmental responsibility in aviation and logistics.

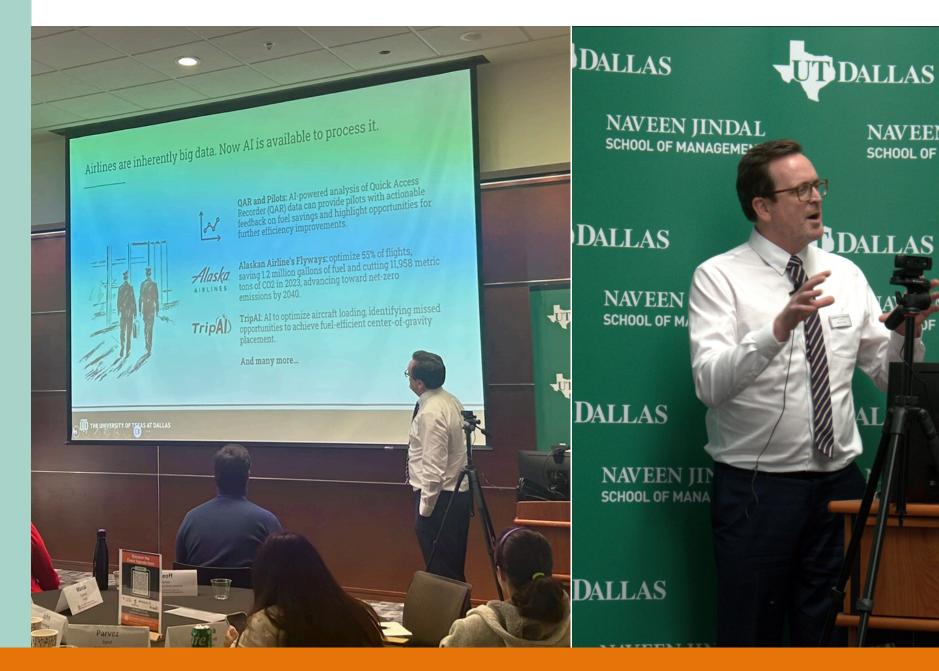


Matthew Fischbacher

Captain 767/757 SAF Path

Airline Efficiency Improvements A Key to Immediate Emission Reductions

Captain Matthew Fischbacher discussed airline operational efficiency as a key to immediate emission reductions. He highlighted fuel-saving techniques, Al-driven performance monitoring, and aircraft load optimization as cost-effective methods to reduce emissions. He also emphasized the role of Sustainable Aviation Fuels (SAFs) in long-term sustainability, explaining the challenges of SAF adoption and the importance of efficiency improvements alongside SAF investments.



John Lovenburg

Vice President, Environmental & Sustainability BNSF Railways

Sustainable Intermodal Freight

John Lovenburg explored sustainable freight transportation, emphasizing the shift towards low-carbon rail logistics. He highlighted BNSF's commitment to reducing emissions by 30% by 2030 through innovations like battery-electric locomotives, renewable fuels, and smart intermodal hubs. His talk also underscored the importance of reducing road congestion and integrating greener logistics solutions.



Happy Hour Reception

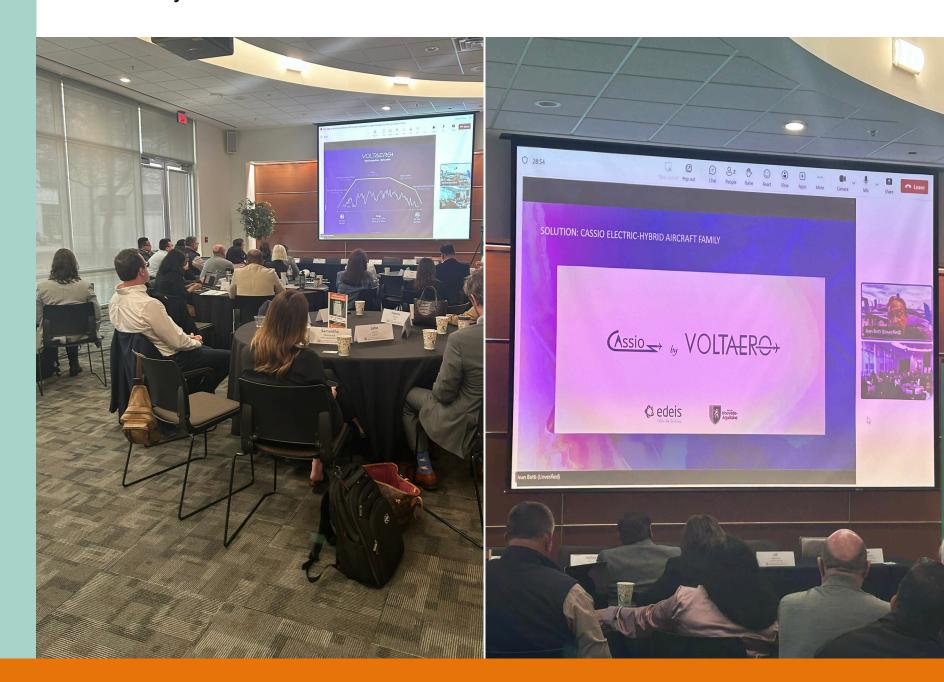


Jean Botti

CEO, CTO & Cofounder VoltAero

Hybrid electric propulsion for general aviation: safe, sustainable, noiseless

Jean Botti, presented the Cassio hybrid-electric aircraft family, a game-changing innovation for regional aviation. He highlighted how parallel hybrid propulsion significantly reduces emissions and noise pollution while extending range up to 1,200 km. VoltAero's commitment to sustainability and efficiency is shaping the future of eco-friendly air travel, supporting the goal of net-zero aviation by 2050.



Women Leaders in Sustainability

A specially invited session with select ladies who have led the cause of a sustainable world for us and for posterity.



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Krista Johnson

U.S. President Johnson Matthey

Sustainable Sustainability: Together

Krista Johnson led a dynamic panel on Women Leaders in Sustainability, featuring trailblazers shaping the future of sustainable aviation. She emphasized inclusivity in sustainability, highlighting how clean energy solutions, economic security, and resilient supply chains are key to a sustainable future. Johnson Matthey's collaboration with BP on the world's largest Sustainable Aviation Fuel (SAF) plant in Louisiana was a focal point, showcasing innovation driving aviation's green transition.



Sandy Lancaster

Assistant Vice President
Environmental Development Programs
DFW Airport

DFW Sustainability Roadmap

Sandy Lancaster shared insights into the airport's sustainability initiatives and environmental planning. She highlighted DFW's achievements, including its status as the first carbon-neutral airport in North America and its net-zero trajectory. Her session covered emissions reduction, waste management, energy efficiency, and innovative solutions like digital twins and sustainable aviation fuel (SAF) pilots, showcasing how DFW is shaping the future of sustainable aviation.

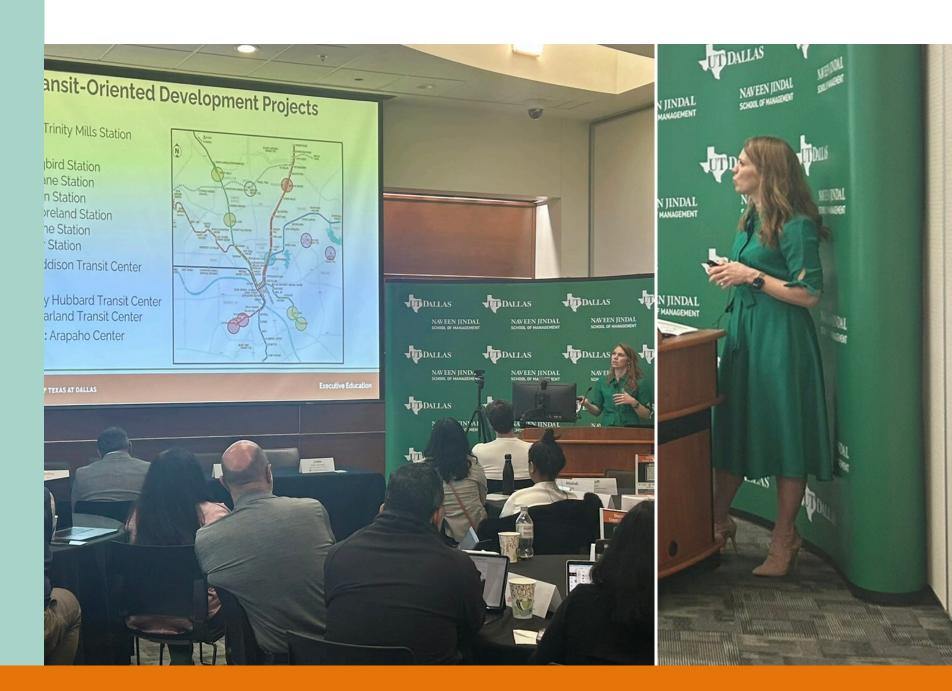


Caitlin Holland

Vice President of Real Estate & Economic Development
Dallas Area Rapid Transit (DART)

DART Development & Sustainability

Caitlin Holland showcased the impact of sustainable transit development in the Dallas region. She highlighted DART's Silver Line Commuter Rail and transit-oriented projects, emphasizing how these initiatives enhance economic growth, reduce emissions, and improve urban mobility. Her session underscored DART's commitment to sustainable infrastructure, demonstrating how public transit investments drive environmental and economic benefits.



Geoff Barker

Senior Analyst Mobility Strategy Toyota North America

Sustainability at Toyota

Geoff Barker presented Toyota's commitment to sustainability and electrification. He highlighted Toyota's efforts in renewable energy, emissions reduction, and sustainable vehicle production, including a 43.1% electrified vehicle sales share in 2024. His insights into water conservation, waste reduction, and sustainable supply chains reinforced Toyota's role in driving the future of green mobility.



Masood Khan

Global Logistics Manager - Aerospace, Defense & Marine TE Connectivity

Sustainability in Supply Chains

Masood Khan explored how sustainable supply chains drive profitability. He shared insights on reducing carbon footprints, optimizing logistics with AI, and implementing circular supply chain models. With examples from Patagonia, DHL, and Unilever, he showcased how companies that embrace green logistics and AI-powered efficiency gain a competitive edge while cutting costs and emissions. Additionally, he showcased his book, *Sustainability Rewired: Pioneering the Future*, which provides a step-by-step roadmap for businesses to turn sustainability into a powerful strategic advantage.



Jeff Skinner

Director of Engineering
Eaton

Navigating Sustainable Flight

Jeffrey Skinner of Eaton Aerospace presented a forward-looking session on sustainable aviation fuel (SAF) and future technologies, emphasizing their role in reducing aviation's carbon footprint. He highlighted Eaton's intelligent power management solutions, which aim for a 50% reduction in Scope 1 and 2 emissions and a carbon-neutral footprint by 2030. With a focus on SAF production challenges, electrification, and additive manufacturing, Eaton is driving innovation to make aviation more efficient, sustainable, and environmentally responsible.



Usman Ghani

Chairman, ConfluCore, LLP
Advisor to Dean
Naveen Jindal School of Management

Business Dynamics & Systems Thinking

Usman A. Ghani delivered an insightful session on Business Dynamics and Systems Thinking in Aviation Ecosystem Sustainability. He highlighted how system dynamics helps decision-makers design effective policies by considering factors like feedback loops, time delays, and sustainability challenges. Referencing historical studies like Jay W. Forrester's industrial dynamics and MIT's Limits to Growth, he emphasized the need for a balanced approach to economic expansion and resource management in aviation.



Usman Ghani

Chairman, ConfluCore, LLP
Advisor to Dean
Naveen Jindal School of Management

Business Dynamics & Systems Thinking

Usman also explored key system archetypes such as Limits to Growth and Tragedy of the Commons, illustrating their impact with real-world examples like Boeing's production challenges. He stressed the importance of integrated decision-making, risk management, and adaptive strategies to ensure sustainable aviation growth.

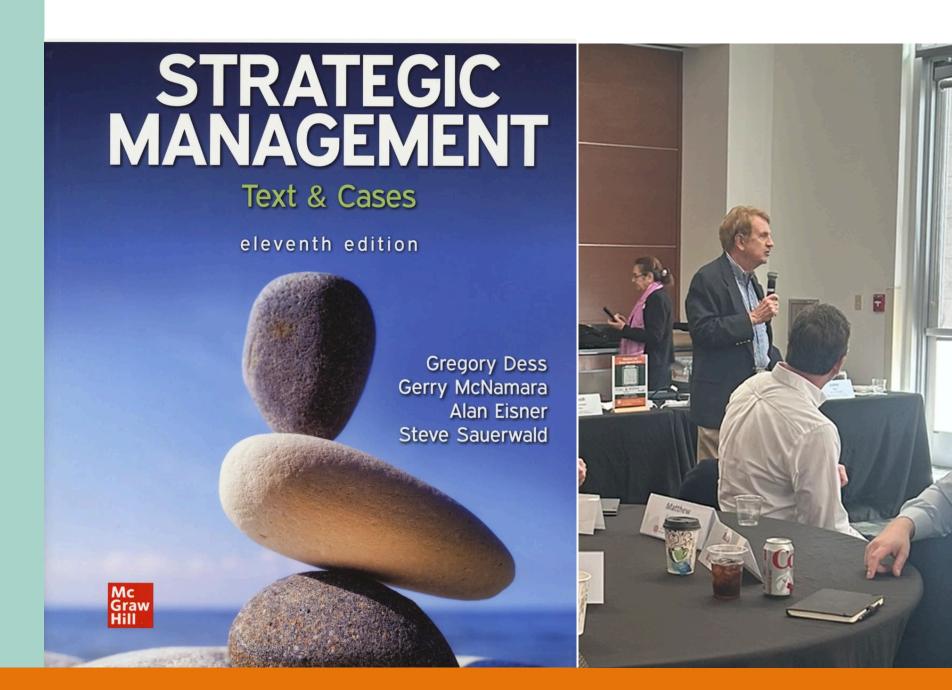




Gregory Dess

Andrew R. Cecil Chair in Applied Ethics
Professor, Organizations, Strategy and International Management
Naveen Jindal School of Management

Gregory G. Dess presented insights from his book, "Strategic Management: Text and Cases" co-authored with McNamara, Eisner, and Sauerwald. The book offers a comprehensive approach to traditional strategic management while addressing modern business challenges such as intellectual assets, entrepreneurship, innovation, knowledge management, and sustainability. It serves as a valuable resource for business leaders and professionals, equipping them with the tools to navigate competitive markets and emerging digital strategies.



Ross Houghton

Vice President, ESG Accelya Group

Ross Houghton, representing Accelya, highlighted the company's commitment to ESG-driven transformation in aviation. As a leader in airline retailing technology, Accelya is pioneering sustainable digital solutions that help airlines optimize operations while reducing their environmental impact. He highlighted Accelya's focus on carbon offsetting, sustainable sourcing, and digital transformation, driving eco-friendly innovations in aviation.



Ross Houghton

Vice President, ESG Accelya Group

With 15,498 tCO₂e offsets and 45% renewable electricity across operations, Accelya is setting a benchmark for ESG leadership in aviation. Their strategies emphasize data-driven decision-making, supplier accountability, and digital innovation to help airlines achieve long-term sustainability goals.



Certificate Ceremony









Certificate Ceremony









Bringing minds together!

A moment captured with the team as we collaborate on innovative solutions for a greener tomorrow.







