

STRATEGIC PLAN 2020-2025

CONCORDIA INSTITUTE OF AEROSPACE DESIGN
AND INNOVATION (CIADI)

INSTITUT DE CONCEPTION ET D'INNOVATION
AÉROSPATIALES DE CONCORDIA (ICIAC)



GINA CODY

SCHOOL OF ENGINEERING
AND COMPUTER SCIENCE
CONCORDIA UNIVERSITY

CONCORDIA

AEROSPACE

Our sector is aerospace—a high-tech industry with many facets, including aircrafts, propulsion, rockets, space missions, supply chain management, aviation, security policies and more



AEROSPACE LANDSCAPE:

Challenges Become Opportunities

- Global competition puts CIADI on the world stage
- Skilled workforce shortage makes CIADI training valuable
- Social acceptability of CO₂ emissions is now under more scrutiny
- COVID-19 pandemic forces us to rethink air mobility



RESEARCH STREAMS

INTELLIGENT DESIGN, MANUFACTURING AND MAINTENANCE

- Industry 4.0
- Supply chain management
- Artificial intelligence
- Digital twins
- Health monitoring and MEMS

SYSTEM DESIGN OPTIMIZATION AND PROPULSION

- Electric and hybrid propulsion
- Alternative fuels
- Advanced system design optimization
- Flight management systems

ADVANCED MATERIALS AND STRUCTURES

- Additive manufacturing
- Smart structures
- Composite materials and nanomaterials
- Coatings and surface engineering

AVIATION MANAGEMENT, MOBILITY, AND AUTONOMY

- Artificial intelligence and big data
- Autonomous systems, robotics and drones
- Connectivity and cyber security
- Human factors
- Policy and security

CIADI MISSION

To globally promote and strengthen aerospace research and education at Concordia through a coordinated cross-faculty platform



VISION

To position Concordia as a leading next-gen university in aerospace research and education supporting the growth of a sustainable and eco-responsible aerospace industry



CIADI'S STRATEGIC DIRECTIONS



BOOSTING AEROSPACE
RESEARCH



INTEGRATING MULTI FACULTY
AEROSPACE AND AVIATION
EXPERTISE



PROVIDING NEXT GEN
AEROSPACE TRAINING



BUILDING A STRONG
AEROSPACE COMMUNITY



DIVERSIFYING EXPERIENTIAL
LEARNING



CONNECTING WITH THE
AEROSPACE ECOSYSTEM



UNIVERSITÉ
Concordia
UNIVERSITY

