



Aviation Technology and Aviation law

Prof. Srinivas Rao Cheruku

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FUTURE OF AIR TRAVEL IN NEW AGE OF TECHNOLOGY:

- **DIGITAL REVOLUTION**
- **LOW COST CARRIERS**
- **IDENTIFICATION OF NEW TECHNOLOGIES**
- **MAJOR DRIVERS**



IMPACT OF PANDEMIC

- COVID-19
- Best Practices
- Global impact
- Priortising technologies



Technological Advances

- Digital revolution
- Technological innovation
- Social and economic benefits
- Technologies Vs legal system



Digitization

Modern cyberspace enabled by three technologies:

- Digital computing
- Internet networking
- cryptography



Aviation Industry Vs Digitization

- Challenges in Aviation
- Artificial Intelligence
- Cloud based applications
- Impact of Digitization



Law and Technology

- Liberalization, Privatization & Globalization;
- Economic engines
- Intelligent transport systems
- Airports and Airlines



Impact of Mobile and Digital Technologies:

- ✓ Needs and Priorities
- ✓ Transition Phase



Leveraging key benefits of AI in Aviation

- Identification of Passengers
- Check in
- Customer service agents
- Baggage screening
- Maintenance prediction



Leveraging key benefits of AI in Aviation

- Fuel efficiency
- Assisting customers
- Generative design
- Supply chain management
- Quality
- training



AI ROBOTIC PILOTS

- Significance
- Complexity
- Flight engineers and Pilots
- Bomber pilots
- Ground attack pilots
- Helicopter pilots



New and Emerging Technologies

- Robotics
- Genetic engineering
- Artificial Intelligence
- Nano technologies
- Internet of Things
- 3D printing
- Virtual reality
- Cloud computing technologies



Interent of Things(IOT)

- Significance
- Key challenges
- ✓ Safety
- ✓ Conservatism
- ✓ Regulatory compliance issues



Procedural aspects of IOT

- Ideation and Strategy
- Overplaying
- Storage and Processing
- Scaling and Deployment
- operational



Block Chain Technology

- Decentralized features
- Supply chain
- Traceability
- Automatic features
- Smart contract
- maintenance



Robotics

- Automation in Robotics
- Drones
- Avatars
- Examples
 - ✓ Airstar
 - ✓ Munich airport
 - ✓ British airways



Other Technologies and Concepts

- Predictive analytics
- Prescriptive maintenance
- Additive manufacturing
- E-commerce
- Lean manufacturing



Impediments of ICT in Aviation

- Individual rights
- Passenger profiling
- Privacy issues



Cyber Security Risks

- Legal issues in Aviation
- Two types of cyber security breaches
- Usage of computer based systems



Cyber crimes-Airports

- Airport security
- GPS Spoofing and Jamming
- ATC hacking
- Airport operating system
- Airport Security system



Cyber crimes-Airlines

- ACARS Hacking
- FMSH
- Remote hacking
- Smart phones
- Mobile applications
- Websites
- EDI
- GDS/CRS
- Wi-Fi Systems



Entities in curbing cyber crimes:

- ✓ ICAO
- ✓ IATA
- ✓ CERT



New Technologies-Legal Challenges

- Cyber crime-new cold war
- Regulation and insurance and public policy
- Legal risks
- Liability risks



Legal risks

- ✓ Labor issues
- ✓ Predictive analytic issues
- ✓ Intellectual property theft
- ✓ Intellectual property ownership

Liability risks

- ✓ Insurance coverage
- ✓ Understanding threat landscape



Indian Aviation Upsurge

- Towards digital
- Passenger self service
- Cyber security
- Border management
- Automated border control



Indian Aviation and Use of Technologies

- Necessity for reviewing
- 3 key objectives
- Challenges
- ✓ Border management
- ✓ Workforce and skills
- ✓ Inflight connectivity