Radio Frequency Identification, an Efficient Modern Technology or a Huge Threat in the Aviation Industry

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 161
Number 1

Year of Publication: 2017

Authors:
Seyed Mohammad Serajzadeh, Omid Pourgalehdari

10.5120/ijca2017913106

Abstract

Human is striving for a well-facilitated world on a daily basis. Having been invented for more than half a century, Radio frequency identification or RFID is lately being used. While noting that every new technology comes along with its threats, RFID technology is bound to the same rule. This paper examines the possible threats of this technology and introduces ways to counter these threats and finally concludes that RFID system is a suitable technology for aviation industry due to the costs and the discussed threats and problems.

References

1. Y F Wong, Paul W K Wu, Daniel M H Wong, Denny Y K Chan, L C Fung, S W Leung, RFI Assessment on Human Safety of RFID System at Hong Kong International Airport, Hong Kong Airport Authority, Hong Kong SAR, China
2. Albert Lozano-Nieto, RFID Design Fundamentals and Applications
3. Roy Want, An Introduction to RFID Technology, PERVASIVE computing magazine
Published by the IEEE CS and IEEE Computer Society

4. Ron Weinstein, RFID: A Technical Overview and Its Application to the Enterprise, IT Pro magazine published by the IEEE computer Society


6. Roger Smith, RFID: A Brief Technology Analysis, CTOnet.org © Copyright 2004


11. RFID Adoption: Issues and Challenges, Eric W. T. Ngai, The Hong Kong Polytechnic University, PR China.

12. RFID Technologies: Emerging Issues, Challenges and Policy Options, Marc van Lieshout, Luigi Grossi, Graziella Spinelli, Sandra Helmus, Linda Kool, Leo Pennings, Roel Stap, Thijs Veugen, Bram van der Waaij, Claudio Borean, European Commission Joint Research Centre Institute for Prospective Technological Studies


14. IATA Annual Review 2013, International Air Transport Association

15. The World Factbook, Central Intelligence Agency (CIA), United States of America, 2015

16. Cost analysis of air cargo transport and effects of fluctuations in fuel price, Ching-Cheng Chao, Ching-Wen Hsu, Department of Shipping and Transportation Management, National Kaohsiung Marine University, Taiwan, ROC

17. The World Bank, international financial institution, Washington D.C., United States

18. Liability problems of air cargo carriage, Charles S. Ri-ryn, Aeronautical Law Committee of the American Bar Association

19. The problem with airlines and checked baggage, Barbara Peterson, Conde Nast traveler mag, June 2012


21. Application of rfid in aviation industry: an exploratory review, Alok Mishra, Ph.D, Deepti Mishra, Ph.D, Atilim University, Department of Computer Engineering, Ankara, Turkey

22. Traceable Air Baggage Handling System Based on RFID Tags in the Airport, Ting Zhang, Yuanxin Ouyang, Yang He, School of Computer Science and Engineering, Beijing University of Aeronautics and Astronautics, China, 2008

Index Terms

Computer Science 
Signal Processing
Keywords

Radio frequency, RFID, threat, detection, aviation technology