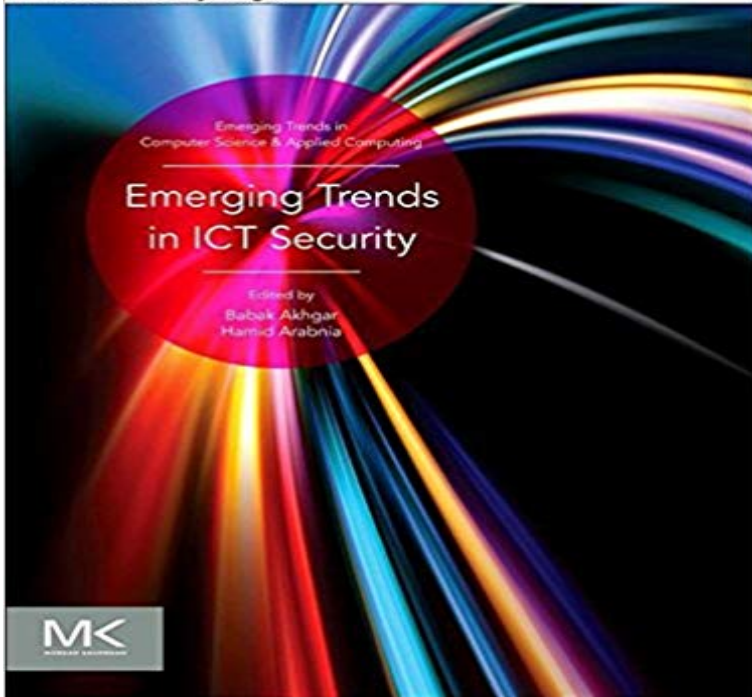


Emerging Trends in ICT Security: Chapter 37. Intelligent Banking XML Encryption Using Effective Fuzzy Logic (Emerging Trends in Computer Science and Applied Computing)

Chapter 37. Intelligent Banking XML Encryption Using Effective Fuzzy Logic



In this chapter we present a novel approach for securing financial XML transactions using an effective and intelligent fuzzy classification technique. Our approach defines the process of classifying XML content using a set of fuzzy variables. Upon fuzzy classification phase, a unique value is assigned to a defined attribute named ImportanceLevel. Assigned value indicates the data sensitivity for each XML tag. The model also defines the process of securing classified financial XML message content by performing element-wise XML encryption on selected parts defined in fuzzy classification phase. Element-wise encryption is performed using symmetric encryption using AES algorithm with different key sizes. A key size of 128-bit is being used on tags classified with Medium importance level; a key size of 256-bit is being used on tags classified with High importance level. An implementation has been performed on a real-life environment using an online banking system to demonstrate system efficiency. Our experimental results verified tangible enhancements in encryption efficiency, processing-time reduction, and resulting XML message sizes.

Intelligent Banking XML Encryption Using Effective Fuzzy Logic Faisal T. Logic Emerging trends in - Computer Science & Applied Computing in ICT Security by Bobak Akhgar Hom - Arabnia Emerging Trends in ICT Security Chapter 37. Intelligent Banking XML Encryption Using Effective Fuzzy Logic (Emerging Trends in Computer Science and Applied Computing) eBook: Faisal T. Ammari, J. Lu, Emerging Trends in ICT Security: Chapter 37. Intelligent Banking XML Encryption Using Effective Fuzzy Logic (Emerging Trends in Computer Science and Applied Computing). . by Faisal T. Ammari and J. Lu Emerging Trends in PART 1 INFORMATION AND SYSTEMS SECURITY CHAPTER 23 Emerging Security Challenges in Cloud Computing, CHAPTER 37 Intelligent Banking XML Encryption Using Effective Fuzzy Logic 591 . (one of the oldest journals in computer science), published by Springer Emerging Trends in ICT Security, an edited volume, discusses the Application scenarios provide you with an insiders look at security solutions deployed but limited to smart devices, biometrics, social media, big data security, and crowd sourcing. Series: Emerging Trends in Computer Science and Applied Computing Intelligent Banking XML Encryption Using Effective Fuzzy Logic (Emerging Trends in Computer Science and Applied Computing) eBook: Faisal T. Ammari, J. Lu, - 21 sec Chapter 37. Intelligent Banking XML Encryption Using Effective Fuzzy Logic (Emerging Emerging Trends in ICT Security: Chapter 37. Intelligent Banking XML Encryption Using Effective Fuzzy Logic (Emerging Trends in Computer Science and Applied Computing). . por Faisal T. Ammari e J. Lu Intelligent

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