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CPE 186

Abstract for CPE 186

**Abstract 1:** Bank chip architecture and how it manages bank accounts from the IC card in the credit card. The constraints that are needed for the chip to actually work and how to manage it from a console, the card reader has a chip reader as well which is a more secure way to transfer data. Not only that but the security behind this architecture much different than before with the magnetic strip. The card manufacturing methods might change and cause for cheaper quicker productions.

**Reference:**

"Design of 13.56MHz Power Recovery Circuit with Signal Transmission for Contactless Bank IC Card." *IEEE Xplore*. Web. 14 Feb. 2016.

(Li, Wu, & Zhang, 2013)

"Efficient Countermeasures against Fault Attacks for 3DES Crypto Engine in Bank IC Card." *IEEE Xplore*. Web. 14 Feb. 2016.

"Flip Chip Method in Smart Card/smart Label Packaging." *IEEE Xplore*. Web. 14 Feb. 2016.

**Abstract 2:** Current models in PCIE to show how significant the PCIE architecture still is to the current engineering scene. Showing examples of how data transfer has changed and how the architecture of PCIE uses buses and how the architecture is different than PCI. Demonstration of how this is done and why it is important for PCIE to exist in current architectures and how things can be used to advance technology.

**Reference:**

"A New DMA PCIe Architecture for Gigabyte Data Transmission." *IEEE Xplore*. Web. 14 Feb. 2016.

"A PCIe DMA Architecture for Multi-Gigabyte Per Second Data Transmission." *IEEE Xplore*. Web. 14 Feb. 2016.