RAISING THE BAR

We are featured in news article "Securing your passport: SSMC's locally-made smart chips"

SSMC is pleased to be in the "Spotlight", the Newsletter of JTC Corporation (An organization under the Ministry of Trade and Industry, the lead agency in Singapore to spearhead the planning, promotion and development of a dynamic industrial landscape) for "Making Things Smart". Our RFID chips are used to secure ePassports around the world! Extracted below is the article published by JTC on 7 Nov 2019.

Mr. Ivan Hee holds a Singapore passport under a lamp, revealing the outline of a smart chip embedded on the biometric page. This chip stores biometric information needed to verify a person's identity. That tiny piece of silicon is manufactured right here in Singapore, within the smart factory of SSMC. Mr. Hee, SSMC's Vice President of Business Operations and Human Resource, describes how smart chips have transformed the way we travel. **Recall the last time you visited Singapore Changi Airport for a flight. At the customs area, you would have inserted the biometric page of your passport into a reader, waited until the barriers parted and entered when instructed by the monitor. This scene might be over within seconds. But behind this convenient experience is a series of invisible digital security checks.**

The moment when you insert your passport into the reader, SSMC's Radio Frequency Identification (RFID) chip communicates information to a computer which will automatically retrieve data secured by an encrypted algorithm. **As part of the decoding process, more than 100 interlocking software codes have to be verified. "In other words, it's a very secure authentication process that renders the information extra safe," adds Mr. Hee.** The company looks beyond just software considerations.

"Imagine putting your passport in the pocket and sitting down. The chip within may crack." To prevent this, SSMC manufactures smart chips to be high in tensile strength, which means it is resistant to breaking under tension.

Beyond passports, SSMC's RFID smart chips are also installed in their wafer pods used for manufacturing. There are different design considerations depending on the end applications, explains Mr. Hee. "In the area of smart e-passport, what you need most is security. Hence, robust data security is of utmost importance."

The semiconductor industry, evidently, is constantly evolving. He is so passionate and believes that **"Semiconductor technology is the bedrock of human advancement"**. So, the next time you pay a visit to Changi Airport, you know that you hold a smart chip in your passport that keeps your data safe while opening gateways to the world.