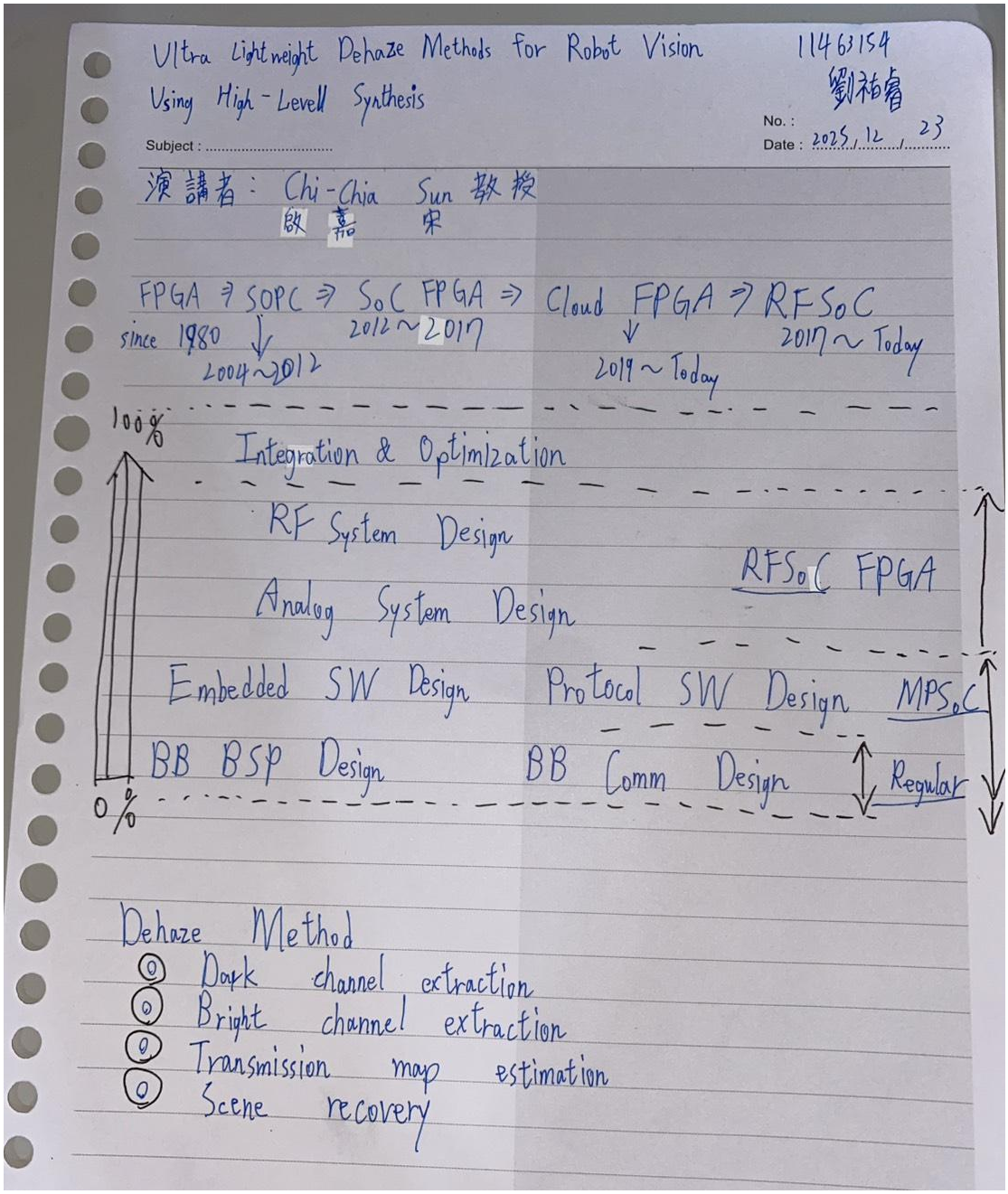
Ultra Lightweight Dehaze Methods for Robot Vision Using High-Level Synthesis

演講日期:2025/12/23

11463154 劉祐睿

演講者: 台北大學電機系 宋啟嘉 特聘教授

內容從下一頁開始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劉祐睿
Subject :
No. :
Date : 2025/12/23
演講者：Chi-Chia Sun 教授
啟嘉 宋
FPGA ⇒ SOPC ⇒ SoC FPGA ⇒ Cloud FPGA ⇒ RFSoC
since 1980
2004~2012
2012~2017
2019~Today
2017~Today
100%
0%
Integration & Optimization
RF System Design
Analog System Design
Embedded SW Design
Protocol SW Design
BB BSP Design
BB Comm Design
RFSoC FPGA
MPSoC
Regular
Dehaze Method
① Dark channel extraction
② Bright channel extraction
③ Transmission map estimation
④ Scene recovery

上課手寫筆記

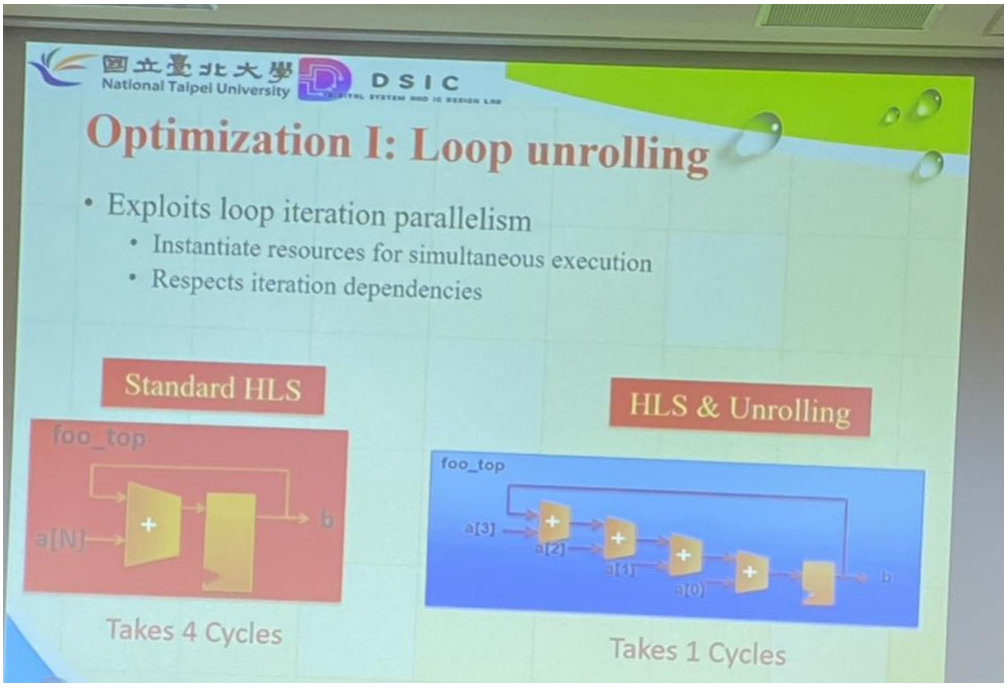

圖 1、迴圈運作示意圖

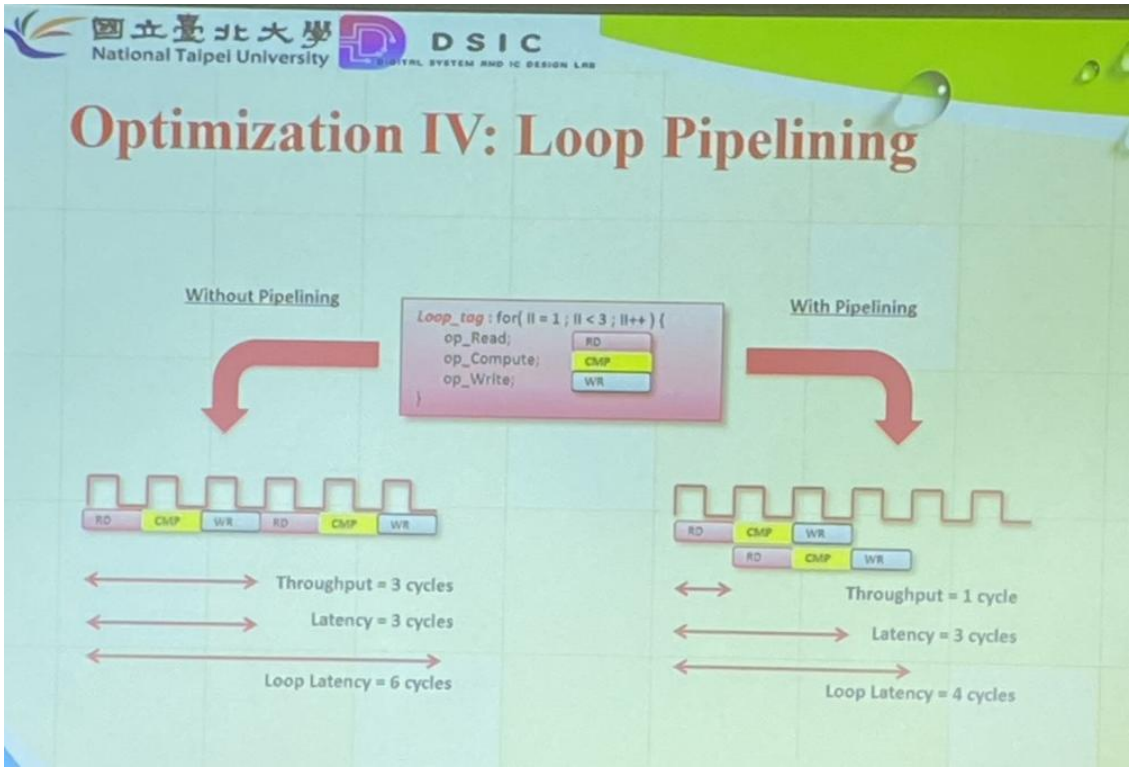

圖 2、指令管線化迴圈運作示意圖

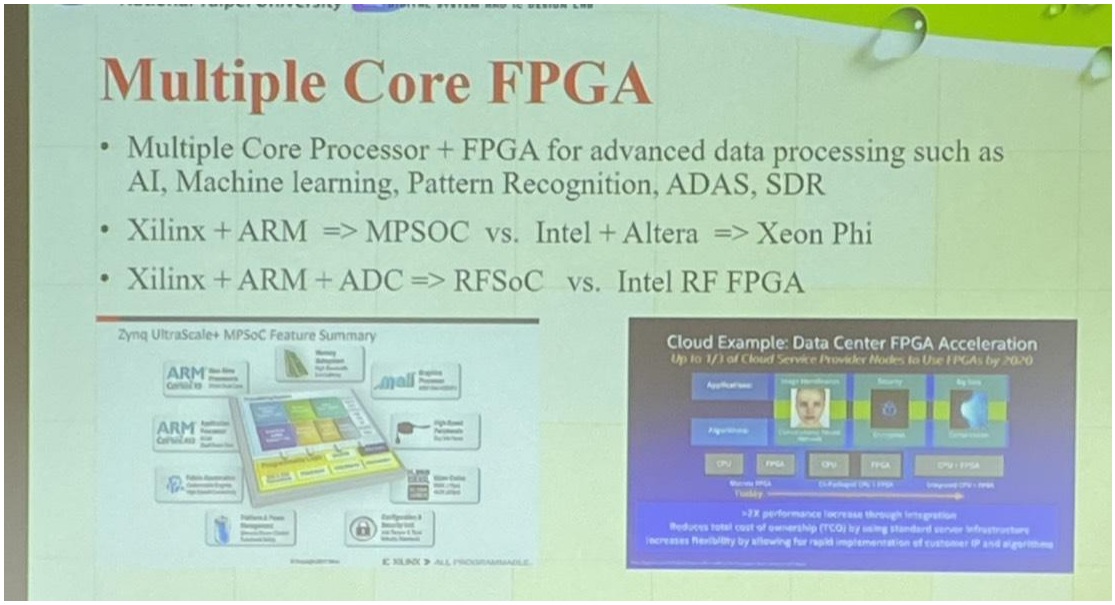

圖 3、多核心之 FPGA

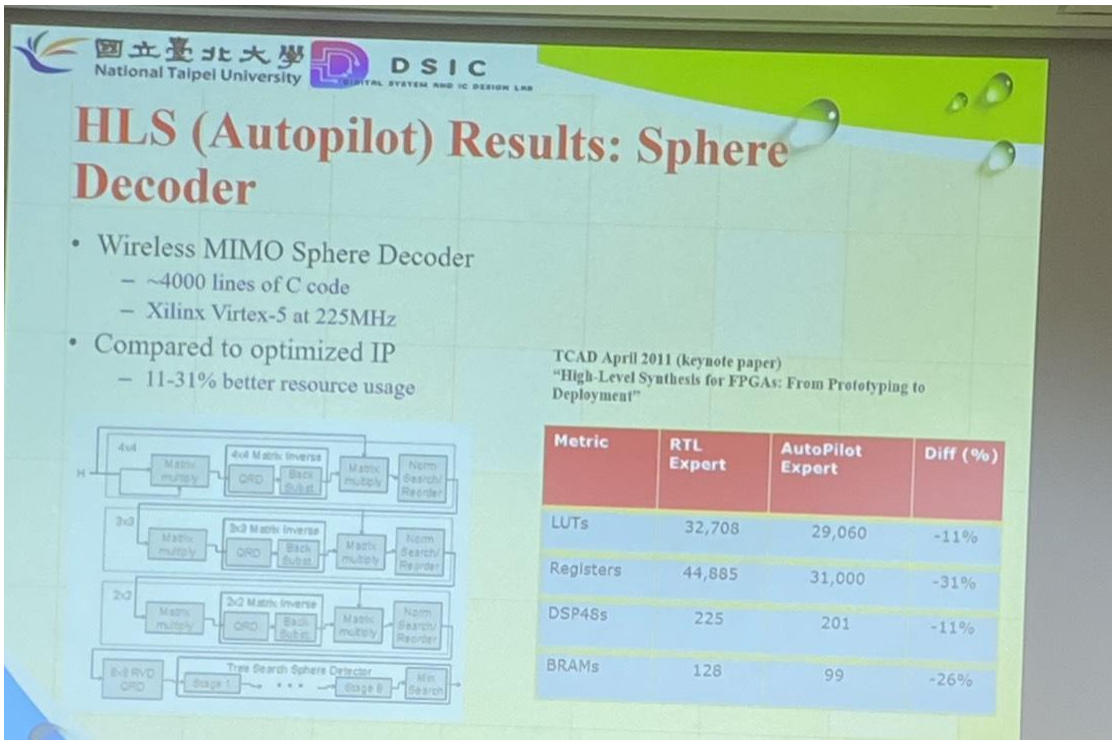

圖 4、Sphere Decoder

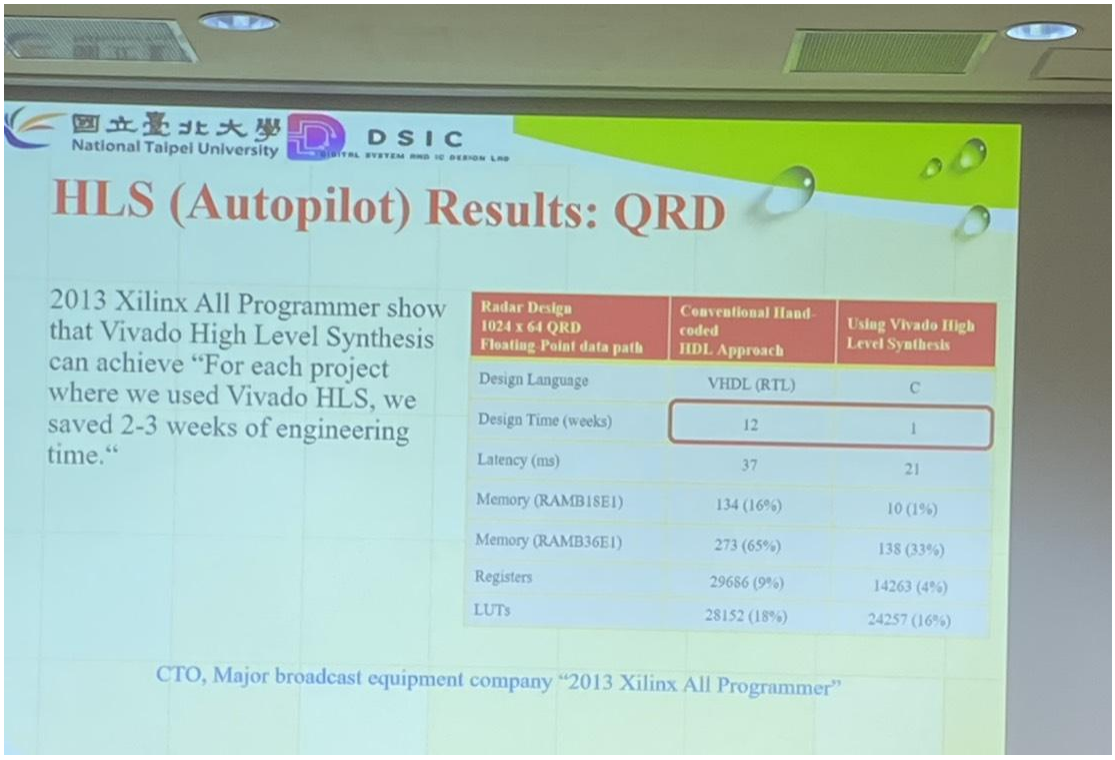

圖 5、QRD

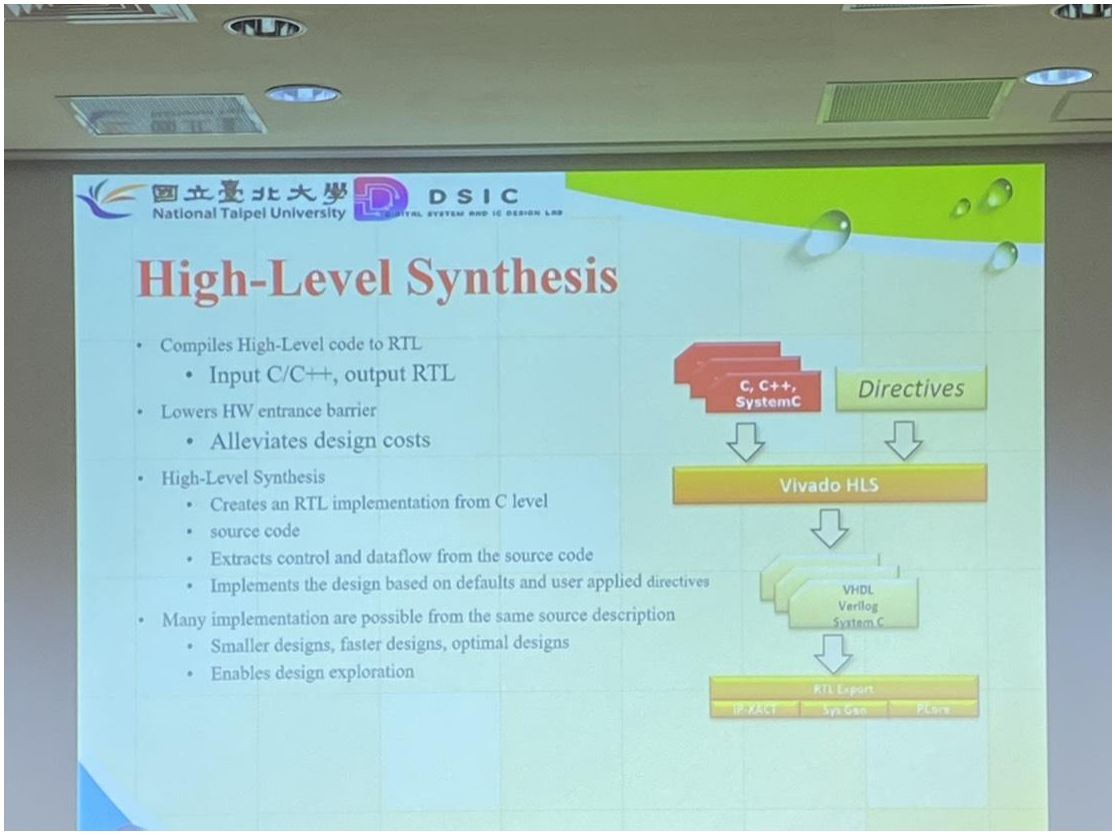

圖 6、C/C++語言與 FPGA 之關係

表 1、BenchMark 圖表