

# Joint CQSE-NCTS-CASTS-CTP Seminar

2021  
May 14, Friday

TIME May 14, 2021, 2:30~3:30pm  
TITLE Mapping Computational Biomedicine and Finance Problems onto Quantum Computing: Lessons in Feature-Selection vs. TSP approach  
SPEAKER Prof. Shih-wei Liao  
Dept. of Computer Science and Information Engineering, IoT Center, & System-on-Chip Center (SOC), National Taiwan University  
PLACE Rm833, CCMS & New Physics Building, NTU

## Abstract:

Our problem statement is: How to use quantum computers to speed up various problems in the biomedicine and finance domain.

## Biography Brief:



Shih-wei Liao completed his B.S. degree in Computer Science and Information Engineering from National Taiwan University, and his M.S. and Ph.D. degree in Electrical Engineering from Stanford University. While at Intel, he has conducted research in developing new program analyses and programming environments to exploit advanced microarchitectures. Prior to Intel, he worked for 8 years on the Stanford SUIF compiler project (part of National Compiler Infrastructure) which delivered the highest SPEC FP number at the time (1998). His thesis work is an interactive interprocedural parallelizer called the SUIF Explorer. The Explorer encompasses advanced visualization tools, dynamic execution analyses, and deep program analyses including an array reduction parallelizer and an array liveness analysis that enables data decomposition and contraction. He worked in the Silicon Valley (Stanford, Google, and Intel) for more than 20 years, culminating at receiving the Google's Highest Award – the Founder's Award.

He is currently an Associate Professor in the department of Computer Science and Information Engineering, NTU, the chairperson of APAC Blockchain Development Association and the convener of Taiwan Blockchain Alliance, Industry Liaison. His research interest includes Blockchain and Big data, Fintech (Internet Finance), Android virtual machines and compilers.

## - N O T I C E -

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