Interview for Lecturer Position in Financial Engineering

at Business School, Chulalongkorn University
Candidate Biography

Pasin Marupanthorn

1. Education

Ph.D. in Actuarial Mathematics

Heriot-Watt University, 2018 - 2024

Optional Taught Courses in Actuarial Science and Financial Mathematics
Dissertation: Quantitative Methods in Sustainable Finance

CQF, Certificate in Quantitative Finance

Fitch Learning, 2024

Five courses in Financial Engineering and Lifelong Learning
Project: To be confirmed

M.Sc. in Financial Engineering

WorldQuant University, 2019 - 2021

Ten courses in Financial Engineering and a Capstone Project
Project: System Trading in Cryptocurrency using Pair Trading:
A Binance Platform Edition

M.Sc. in Mathematical Modelling

University of Birmingham, 2017 - 2018

Eleven Courses in PDFs, Financial Mathematics, Continuum Mechanics and a Thesis
Project: Can Chlamydomonas Reinhardtii Enhance Mixing in Microfluidic Devices?

M.Sc. in Mathematics

Thammasat University, 2010 - 2013

Ten Courses in Pure and Applied Mathematics
Project: Improved 1/t Algorithm for Approximating Multidimensional Integration

B.Sc. in Applied Mathematics with Physics

Thammasat University, 2007 - 2010

Twenty Courses in Pure and Applied Mathematics
Project: Maximum Matching of Glued Graph

2. Professional Experience

Principal Investigator
QuantConer Research Laboratory, 2024 – Now

Special Lecturer in Data Science and Insurance (Actuarial Models in Practice**)**
Thammasat University, 2023 – Now

Quantitative Researcher
ResilientML, Australia, 2020-Now

Teaching Assistant
Machine Learning in Insurance A and B, Heriot-Watt University, with Prof. Gareth W. Peters, 2021-2022
Life Insurance Mathematics A and B, Stochastic Modeling, and Time Series Analysis,
Heriot-Watt University, 2020-2022

Lecturer in Mathematics
Mathematics Subjects
Rajamangala University of Technology Suvarnabhumi, 2014 - 2017

3. Research

- Google Scholar: [Google Scholar]

Next Five Years Theme

- Sustainable Finance and Insurance
- Decentralized Insurance
- Statistical Machine Learning in Finance and Insurance

- **Financial Mathematics**
  - Financial Data Science
  - Sustainable Finance
  - Algorithmic Trading and High Frequency Trading
  - Statistical Arbitrage
  - Portfolio Optimization
  - Econometrics
  - Stochastic Models in Finance
- **Actuarial Science**
  - Actuarial Data Science
  - Non-Life Insurance
  - Sustainable Insurance
  - Decentralized Insurance
  - Stochastic Models in Insurance
- **Statistical Learning**
  - Generative Models
  - Distributional Learning
  - Stochastic Optimization
  - Dependency Models
  - Unsupervised-Learning
  - Reinforcement Learning
  - Reproducing Kernel in Hilbert Space
  - Information Geometry

4. Research Grant

A Mathematical Model for Planning of Productions from Moringa Oleifera leaf Extract :
The National Research Council of Thailand funded a one-year project from 2019 to 2020 with a budget of $10,000.

Mathematical model for chemotaxis of mesenchymal stem cells induced by breast cancer cells:
A one-year project funded by the National Research Council of Thailand took place during 2016-2017 with a funding amount of $50,000.

Mechanisms to incentivise fossil fuel divestment and implications on portfolio risk and returns:
A one-year project funded by the University of Technology Sydney (UTS) took place during 2021-2022, with funding amounting to $7,000.

Impact of high ESG risk divestment on green pension funds:
A one-year project funded by the University of Technology Sydney (UTS) occurred in 2023, with a funding amount of $10,000.

5. Working Style and Corroboration

“Proactive Working, Collaboration, Grow Together, and Social Impact”

- **Center for Financial Mathematics and Actuarial Research**,
  UC Santa Barbara, *Professor Gareth W. Peters*

- **Quantitative Finance Research Centre**
  University of Technology Sydney, *Professor Christina Nikitopoulos Sklibosios*

- **Climate Risk Consortium**
  Institute of Statistical Mathematics, *Professor Tomoko Matsui*

- **Climate Risk in Insurance Research Group**
  Institute and Faculty of Actuaries, *Eric D. Ofosu-Hene, Ph.D*

- **Centre for Risk Analytic**
  Macquarie University, *Professor Pavel V. Shevchenko*

- **Strategic Futures Laboratory**
  Heriot-Watt University, *Professor Mike Chantler*

6. Social Engagement

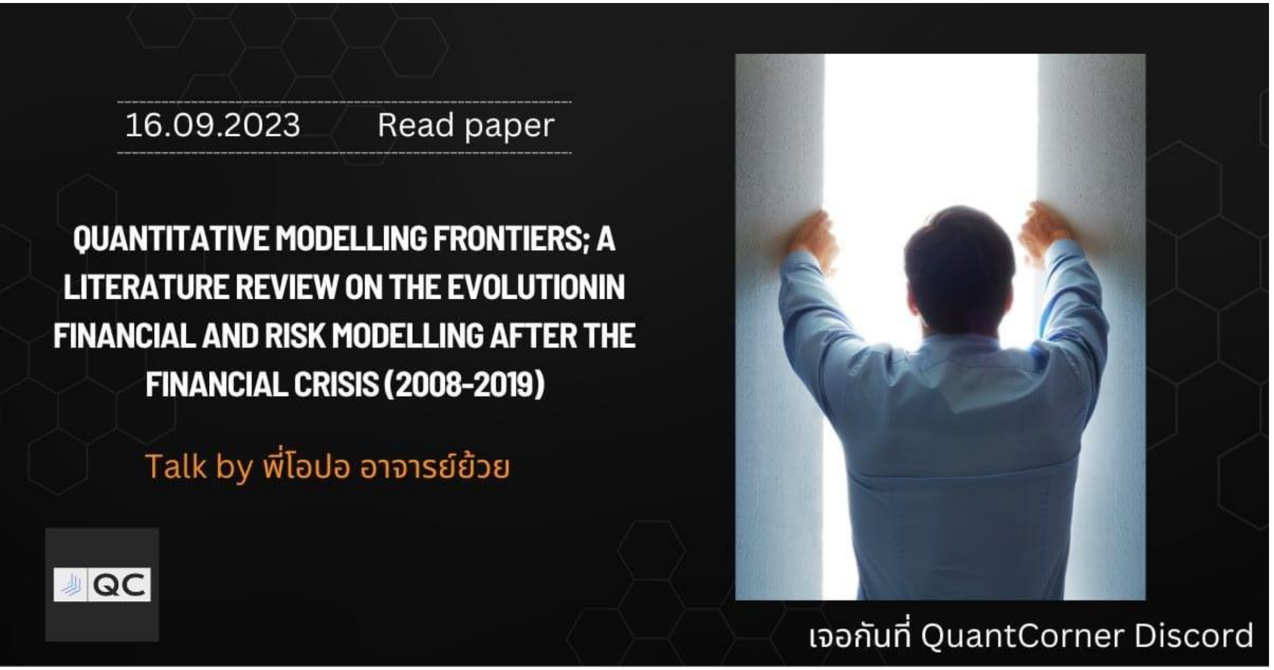
QuantConner Community

- [Website]
- [Youtube]
- [facebook]

6.1. Meeting Up and Seminar

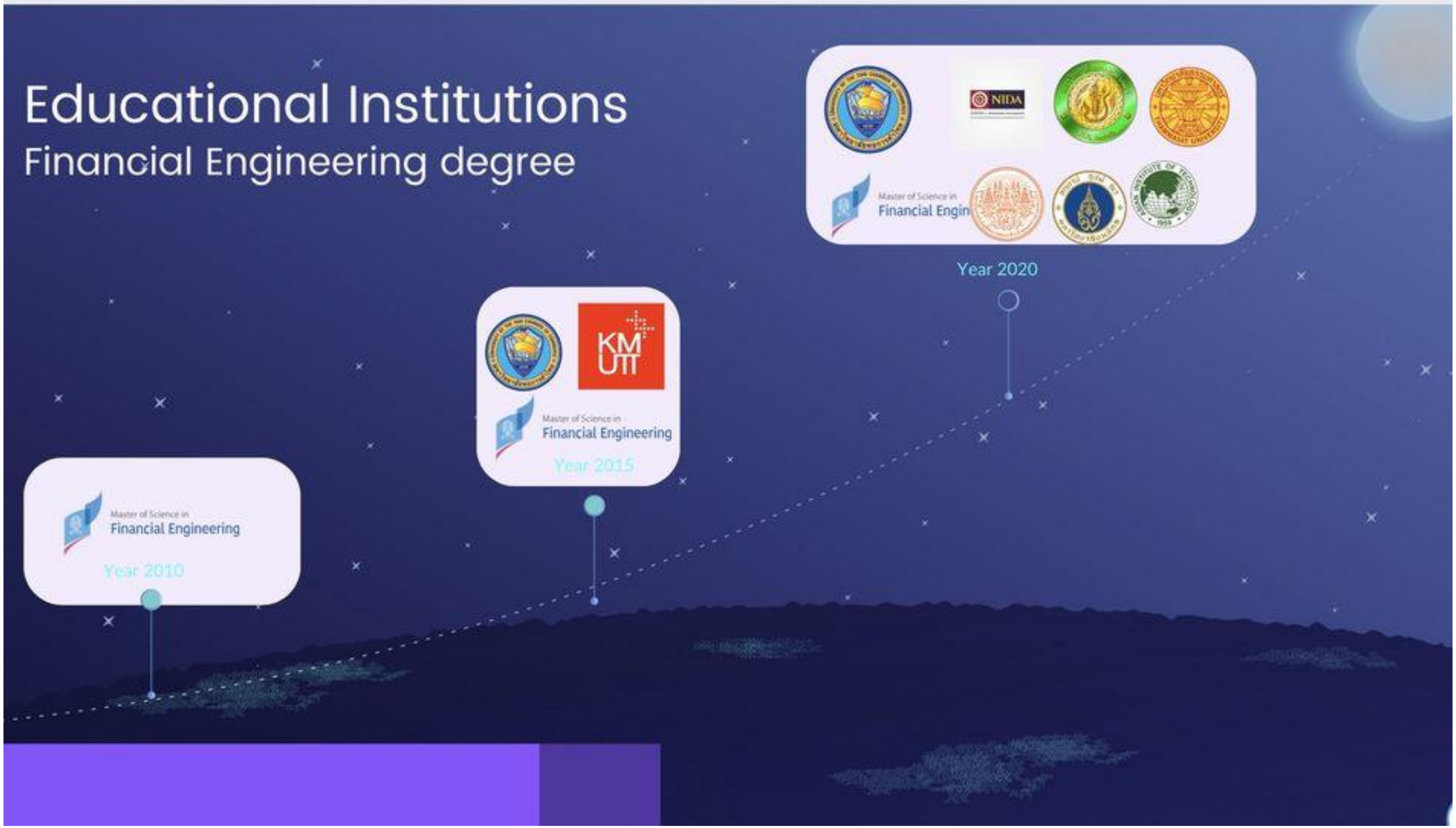
LIVE Globlex QuantCorner Ezyquant

6.2. Paper Reading Group



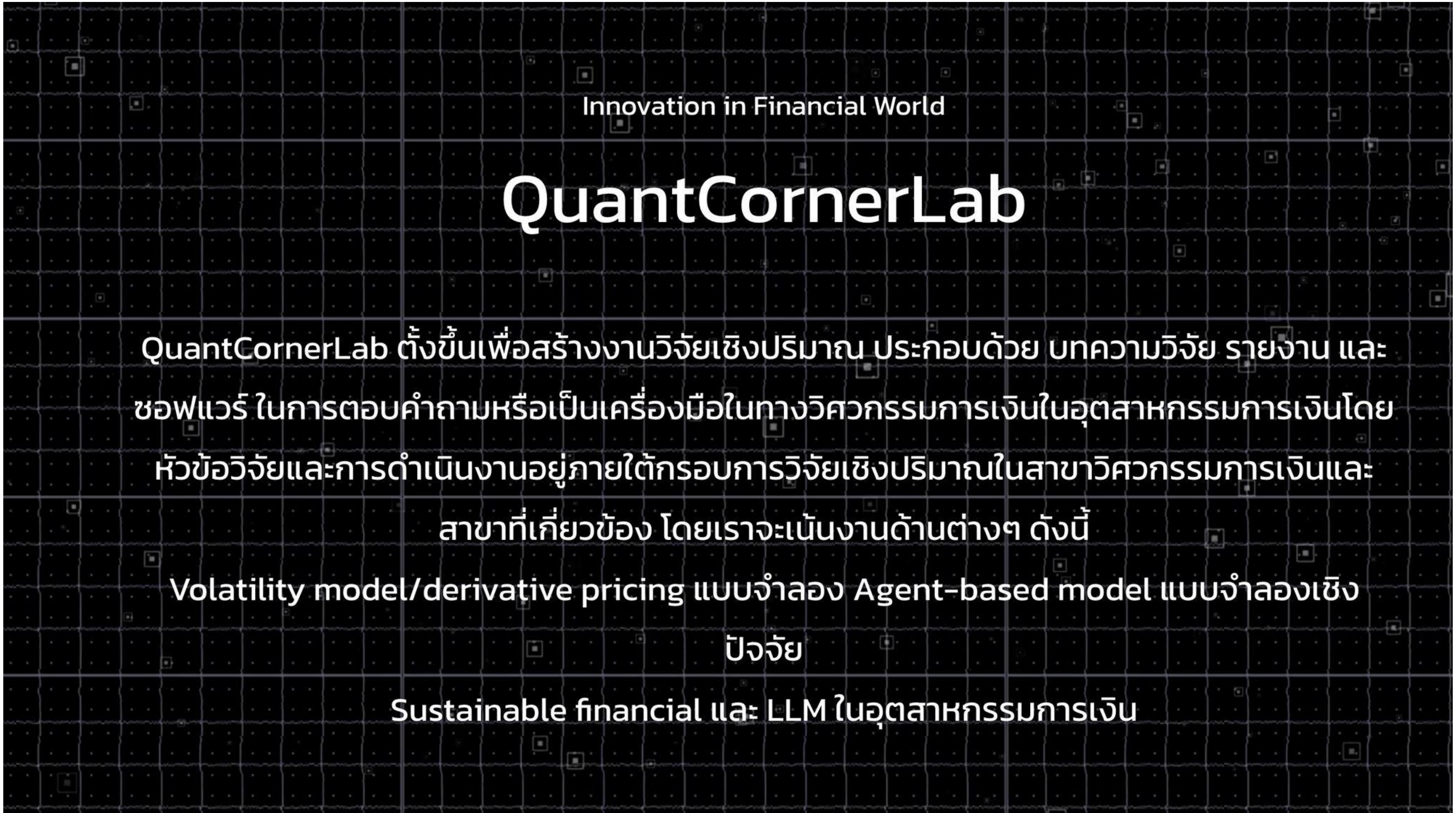
6.3. Guideline Session

6.4. FE Thailand Growth



6.5. ESG Hackathon

6.6. QuantCorner Research Laboratory



Development of ESG Factors for Enhancing Factor Model in the Thai Stock Market

Pasin Marupnathorn, Ph.D.
Principal Insitgator at QuantConner Laboratory
Lecture at Meajo University

Nuthdanai Wangpratham
Industrial Coordinator at QuantConner Laboratory

Teerasit Termsaithong, Ph.D.
Principal Insitgator at QuantConner Laboratory
Lecture at KMUTT

Jutha Koryanyong
Member at QuantConner Laboratory

Chanon Chanpiwat
Member at QuantConner Laboratory

Carat Pathomsathit
Member at QuantConner Laboratory

Leveraging Generative Pre-trained Transformers for the Integration of Environmental, Social, and Governance Considerations into Investment Management for Thai Stock

Nuthdanai Wangpratham
Industrial Coordinator at QuantConner Laboratory

Teerasit Termsaithong, Ph.D.
Principal Insitgator at QuantConner Laboratory
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