Dr. Chun-Chih (Elvis) Chen

+886-928-790-079 |
elvischen.ms04g@nctu.edu.tw; elvischen@go.thu.edu.tw

EDUCATION

National Chiao Tung University ***Hsinchu, Taiwan***
Ph.D of Management Science, 2015.9-2020.10
- *Dissertation: Decoupling economic growth from energy resource use and environmental pressures: Evidence from G20 countries, nuclear-dependent countries, and Taiwan.*

North Carolina State University-Dept. of ISE ***Raleigh, North Carolina, USA***
Visiting Scholar, 2018.8-2020.3

Feng Chia University ***Taichung, Taiwan***
M.S. in International Trade, 2008.9-2010.6
- *Dissertation: Comparison of Mobile-Blogging Acceptance between Indonesia and Taiwan*

Tamkang University ***Taipei, Taiwan***
- *B.S. Information Management,2001.9-2005.6*

WORK EXPERIENCE

Artificial intelligent consultant, CRIS, Taichung City. ***July 2021-present***
- Manage and direct research and development *(R&D)* and processes to meet the needs of CRIS AI strategy.
- Help cross-functional teams to identify and prioritize key areas of the client's business where AI solutions can drive significant business benefit.
- Develop processes and tools to monitor and analyze machine learning (ML) solutions while setting and maintaining the outcomes accuracy.

Data Scientist in Institutional research, Thunghai University, Taichung City. ***Oct. 2020-present***
- Delivers different Dept. data consulting services. Efforts directed toward Tableau, Python, SQL or leveraging school data to drive solutions.
- Mine and analyze data from school databases to drive the improvement of student learning performance, and the satisfaction of learning.
- Mine and analyze data from the status of graduation databases to drive the improvement of teacher's teaching performance, and deliver the suggestions for the teach material.
- Assess the effectiveness and accuracy of new data sources and data gathering techniques.

Assistant Researcher, Feng Chia University, Taichung City. ***Sept. 2013-May 2015***
- Assisted with preparation of research manuscripts, summarizing and organizing literature reviews, editing design of data collection activities, performing statistical analyses, cleaning and coding datasets, interpreting quantitative analysis results.

Marketing Specialist, Vedan, Taichung City. ***May - Nov. 2011***
- Assisted commodity consumption behavior, market opportunities, and the product niches research.
- Assisted monthly ACNielsen report update for department meetings.
- Assisted launch and tracking sales and marketing.
- Assisted sourcing and discussing marketing campaigns with the advertising agency.

PUBLICATION

Computer Science/Machine Learning

- Wang, L. C, Chen, C. C*., & Hsu, C. C. (2022). Applying machine learning and GA for process parameter
  optimization in car steering wheel manufacturing. (Submitted to *The International Journal of Advanced Manufacturing Technology*-R1)
- Wang, L. C*., Chen, C. C., Liu, J. L., & Chu, P. C. (2021). Framework and deployment of a cloud-based advanced planning and scheduling system. *Robotics and Computer-Integrated Manufacturing*, 70,102088. https://doi.org/10.1016/j.rcim.2020.102088. (13/109-Computer Science, Interdisciplinary Applications, 2019)
- 蘇致瑩, 陳俊智 & 包曉天. (2020)基於機器學習的台灣民宿訂價分析與預測模型-電子口碑的角色. *觀光與休閒管理期刊*, 8(1).

Time series in Energy/Circular economy

- Pao H. T*., & Chen, C. C. The dynamic interaction between circular economy and the environment: Evidence on EU countries. *Waste Management & Research*. December 2021. doi:10.1177/0734242X211057015 (SCI)
- 陳俊智, &包曉天. (2021). 循環經濟對經濟及環境永續之影響-以歐盟國家為例. 人文與社會科學簡訊, 22(4), 96.
- Chen, C. C.* (2020). The path to a 2025 nuclear-free Taiwan: An analysis of dynamic competition among emissions, energy, and economy. *Energy & Environment*, 32(4), 668-689.
- Pao, H. T., & Chen, C. C. (2020). Decoupling of environmental pressure and economic growth: evidence from high-income and nuclear-dependent countries. *Environmental Science and Pollution Research*, 27(5), 5192-5210. (SCI)
- Pao, H. T., & Chen, C. C. (2019). Decoupling strategies: CO_2 emissions, energy resources, and economic growth in the Group of Twenty. *Journal of cleaner production*, *206*, 907-919. (SCI)
  <🏆Highly Cited Paper in Top 1% of engineering>

E-commerce

- Wu, K. W., Huang, S. Y., & Chen, C. C. (2012). Comparison of Mobile-Blogging Acceptance between Indonesia and Taiwan. *International Journal of Mobile Communications*, 10(2), 150-168. (SSCI)
- 侯佩妤, 陳俊智, & 包曉天. (2017). 電子口碑訊息和訂價: 以臺灣連鎖經營酒店為例. *商略學報*, 9(2), 103-118.

PROJECT

Foaming process parameter recommendation system

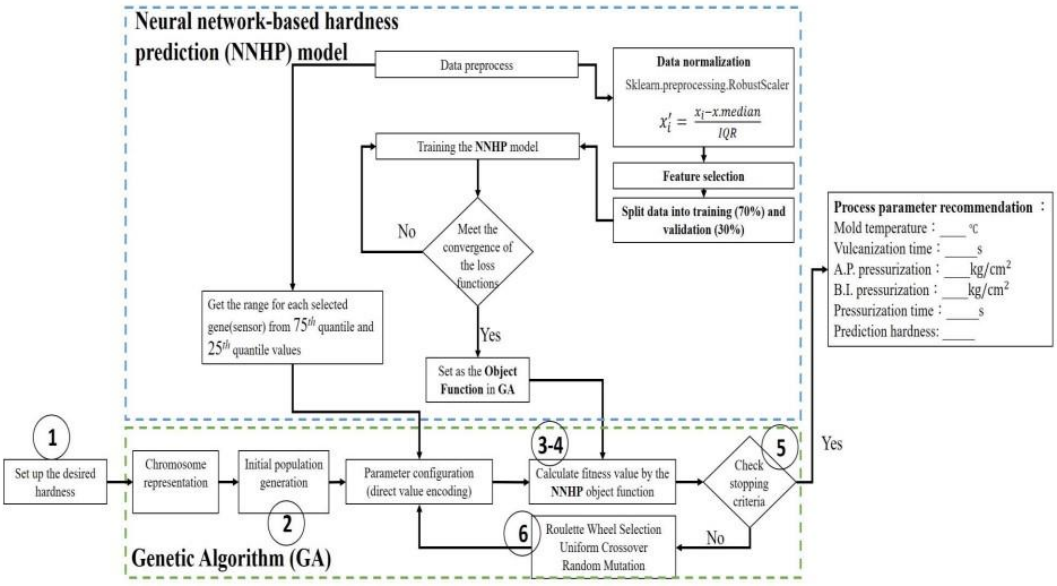
Issue: The parameters setting incorrectly and reduce the production yield.

Solution:

- Build an AI monitor and recommendation system, the functions are below:
  1. SPC
  2. Visualization Dashboard
  3. Recommendation system: Neural network coupled with Genetic Algorithm
  4. Defect detection – ensemble model (RF, Navie Bayes, XGboost)

All the functions are coded in python, and the package includes: Tensorflow, Keras, and sklearn. The GA is built from scratch.

The process of the recommendation model is below:



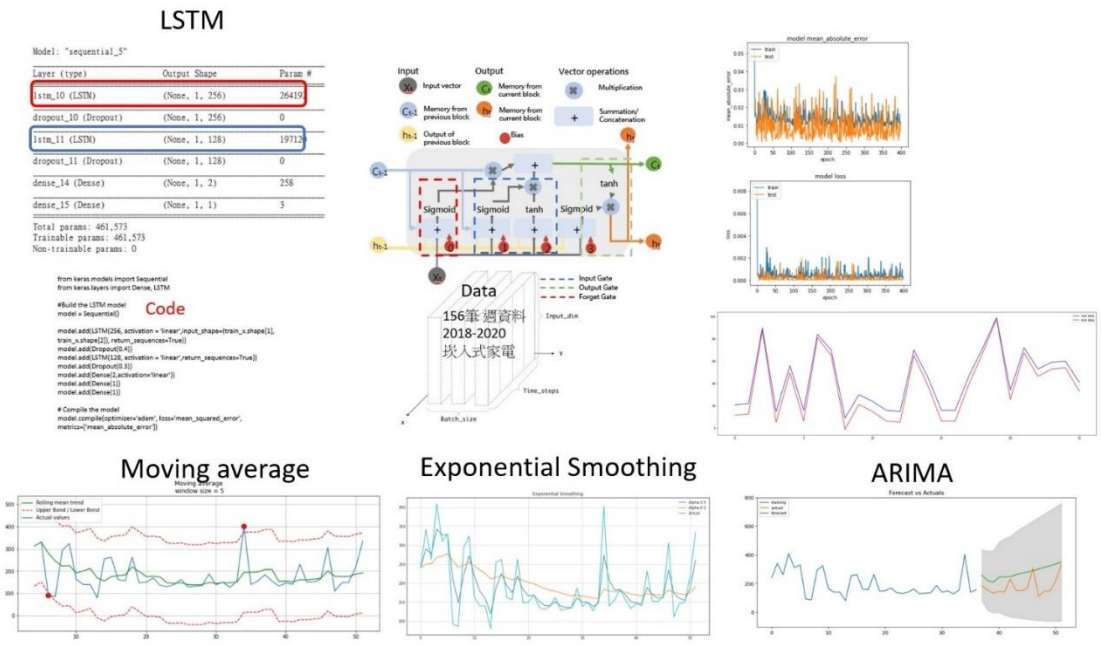
Process of NNHP-GA process parameter recommendation model

JTL sales prediction https://www.e-jtl.com.tw/

Issue: The sales are predicted by senior sales. And the accuracy (**predicted/real-sales** between 20%-234%) is not accurate.

Solution:

1. We compared different methods to make the prediction such as ARIMA, Exponential Smoothing, and LSTM. By using the LSTM, we improve the accuracy to 73%-105%。



Different methodology for JTL sales prediction

SKILL

Language:

Chinese ●●●●● English (TOEIC:900) ●●●●○

Technical Skills:

Python ●●●●● SAS ●●●●● R ●●●●○ MS SQL●●●○○ HTML&CSS●●●○○
SPSS ●●●●● Eviews ●●●●● Tableau ●●●●●