

Associate Professor Chitin Hon

Department of Engineering Science, Faculty of Innovative Engineering
Macau University of Science and Technology
Research Center for Pandemic and Epidemic Prediction and Intelligence



PhD. Supervisor

Tel. : (853) 65563613

E-mail : cthon@must.edu.mo

Academic Qualification:

December 2017-December 2018	Visiting researcher at the Automation and Energy Laboratory of Saarland University, Germany
June 2015-December 2015	Visiting Scholar, Discrete Event Systems Laboratory, New Jersey Institute of Technology, USA
November 2011-May 2015	Postdoctoral Visiting Researcher, Smart City Research Center, Fudan University
September 2003-June 2008	Ph.D. in Management Science and Engineering (system engineering direction), South China University of Technology
September 1997-September 2000	Master of Computer Software Application, Jinan University
April 1993-June 1996	Master of Management Science and Decision Science, University of Macau
September 1989-April 1993	Bachelor of Science in Electronics, School of Science, Guangzhou University

Teaching Area

Business Analysis and Decision Making

Information Technology

Research Area

Pandemic and Epidemic Dynamics and Prediction, Human-Robot Interaction, Statistical Learning, etc.

Working Experience

1. August 2017-Present, Associate Professor and Doctoral Supervisor, Faculty of Innovative Engineering, Macau University of Science and Technology
2. May 2021-Present, PI, Guangzhou Laboratory(National Laboratory)
3. May 2021-Present, Associate Researcher, Guangdong Nanshan Innovative Medicine Research Institute
4. August 2017-July 2018, Visiting Researcher, Automation and Energy Laboratory, University of Saarland, Germany

5. January 2016-July 2017, Executive Director and Deputy CEO , Parafuturo de Macau Investment Development Co., Ltd.
6. June 2015-December 2015, Visiting Researcher, Discrete Event Systems Laboratory, New Jersey Institute of Technology, USA
7. September 2003-May 2015, Director/Associate Professor, Macau University of Science and Technology Research Office
8. August 2002-August 2003, Assistant Dean , Huasoft Software College, Guangzhou University
9. November 1996-August 2002, Co-Founder & Technical Director, NetCraft Information Technology (Macau) Co., Ltd.

Research Grants

1. FDCT, Respiratory Disease AI Laboratory on Epidemic Intelligence and Medical Big Data Instrument Applications, No.005/2022/ALC
2. Self-supporting Program of Guangzhou Laboratory, Research and develop an integrated system for accurate forecasting of major national epidemics , No.SRPG22-007
3. Ministry of Science and Technology, Topics on Science and Technology Winter Olympics, Risk chain analysis technology for the spread of the new crown epidemic in the relevant population of the Winter Olympics, No.2021YFF0306000
4. Department of Science and Technology of Guangdong Province, Construction and application of a high-precision prediction model for the spread of novel coronavirus, No.2021A1111120009
5. FDCT, Printing Defect Detection Method and Application Based on Broad Learning System, No.0055/2020/A2
6. FDCT, Robot Assitant in Vehicle, No.0014/2018/AIR
7. FDCT, Chatbot Research and Development Based on NLP and Deep Learning, No.078/2017/AIR
8. FDCT, Intelligent Hotel Robot - Unmanned Hotel, No.079/2017/AIR
9. Macau University of Science and Technology Research Fund, Research on Social Network Analysis and Its Prediction in Prevention and Control of "COVID-19" Epidemic, No.FRG-20-021-MISE

Representative publications (Complete publication refer to my webpage)

1. Zeng Z, Guan W, Liu Y, Lin Z, Liang W, Liang J, et al.and **Hon Chitin***, Different Circulation Pattern of Multiple Respiratory Viruses in Southern China During the COVID-19 Pandemic. *Frontiers in Microbiology*. 2022;12. (Q1)
2. Luo L, Yang Z, Liang J, Ma Y, Wang H, **Hon Chitin***, et al. Crucial control measures to contain China's first Delta variant outbreak. *National Science Review*. 2022;9(4). (Q1)
3. Zifeng YANG,Zhiqi Zeng, Tong Wu,Zhijie Lin, Lei Luo, **Hon Chitin***,et al.Containment of SARS-CoV-2 Delta strain in Guangzhou, China by quarantine and social distancing: a modelling study, *Scientific Reports*, 2022 (Q2)
4. An, Y., Wu, N. Q., **Hon Chitin***, & Li, Z. W. (2017). Scheduling of Crude Oil Operations in Refinery without Sufficient Charging Tanks Using Petri Nets. *Applied Sciences-Basel*, 7(6). doi:10.3390/app7060564 (Q2)
5. Cai, S. H., Feng, Y. F., Ye, J. H., Deng, Y. L., Cai, Z. D., Zhu, X. J., . . . He, **Hon Chitin***. (2021).

The prognostic roles of CYP19A1 expression in bladder cancer patients of different genders. *Translational Andrology and Urology*, 10(9), 3579-+. doi:10.21037/tau-21-400

6. Chen, Y. F., Al-Ahmari, A., **Hon Chitin***, & Wu, N. Q. (2015). Equivalent Transformation of Nonlinear Constraints to Linear Constraints in Petri Nets. *Mathematical Problems in Engineering*, 2015. doi:10.1155/2015/640917
7. Choi, F., **Hon Chitin***, Mao, Y. H., & Lai, I. K. W. (2019). Sustainable Development for Small Economy and Diversification from a Dominant Industry: Evidence from Macao. *Sustainability*, 11(6). doi:10.3390/su11061626 (Q2)
8. Ghahramani, M., Zhou, M. C., & **Hon Chitin***. (2017, May 16-18). *Analysis of Mobile Phone Data under a Cloud Computing Framework*. Paper presented at the 14th IEEE International Conference on Networking, Sensing and Control (ICNSC), Calabria, ITALY. (Q1)
9. Ghahramani, M., Zhou, M. C., & **Hon Chitin***. (2019a). Extracting Significant Mobile Phone Interaction Patterns Based on Community Structures. *Ieee Transactions on Intelligent Transportation Systems*, 20(3), 1031-1041. doi:10.1109/tits.2018.2836800 (Q1)
10. Ghahramani, M., Zhou, M. C., & **Hon Chitin***. (2019b). Mobile Phone Data Analysis: A Spatial Exploration Toward Hotspot Detection. *Ieee Transactions on Automation Science and Engineering*, 16(1), 351-362. doi:10.1109/tase.2018.2795241 (Q1)
11. Ghahramani, M., Zhou, M. C., **Hon Chitin***, & Ieee. (2018, Mar 27-29). *Spatio-Temporal Analysis of Mobile Phone Data for Interaction Recognition*. Paper presented at the 15th IEEE International Conference on Networking, Sensing and Control (ICNSC), Zhuhai, PEOPLES R CHINA.
12. Ghahramani, M., Zhou, M. C., **Hon Chitin***, Wang, G., & Ieee. (2018, Mar 27-29). *Retention Analysis based on a Logistic Regression Model: A Case Study*. Paper presented at the 15th IEEE International Conference on Networking, Sensing and Control (ICNSC), Zhuhai, PEOPLES R CHINA.
13. Ghahramani, M. H., Zhou, M. C., & **Hon Chitin***. (2017). Toward Cloud Computing QoS Architecture: Analysis of Cloud Systems and Cloud Services. *Ieee-Caa Journal of Automatica Sinica*, 4(1), 6-18. doi:10.1109/jas.2017.7510313
14. Han, Z. D., Feng, Y. F., Deng, Y. L., Tang, Z. F., Cai, S. H., Zhuo, **Hon Chitin***, . . . Zhong, W. D. (2022). Integrated analysis reveals prognostic value and progression-related role of AMIGO2 in prostate cancer. *Translational Andrology and Urology*, 11(7), 914-+. doi:10.21037/tau-21-1148
15. Lee, T., **Hon Chitin***, & Cheung, D. (2009, Jun 29-30). *XML Schema Design and Management for e-Government Data Interoperability*. Paper presented at the 9th European Conference on e-Government, Univ Westminster Business Sch, London, ENGLAND.
16. Liu, R., Feng, Y. F., Deng, Y. L., Zou, Z. H., Ye, J. H., Cai, **Hon Chitin***, . . . Zhong, W. D. (2021). A HIF1 alpha-GPD1 feedforward loop inhibits the progression of renal clear cell carcinoma via mitochondrial function and lipid metabolism. *Journal of Experimental & Clinical Cancer Research*, 40(1). doi:10.1186/s13046-021-01996-6 (Q1)
17. Miranda, M. S., da Silva, J., **Hon Chitin***, McKerrall, S. J., & Liebman, J. F. (2013). The structure and energetics of pyrrolidinones, tetrahydrofuranones, piperidinones, and tetrahydropyranones: a computational study. *Structural Chemistry*, 24(6), 1829-1839. doi:10.1007/s11224-013-0237-x
18. Pang, C., Chen, Z. M., & **Hon Chitin***. (2005, Jul 21-26). *Factors affecting consumers' trust building in B-to-C e-Commerce market of China: An empirical study*. Paper presented at the 8th Joint Conference on Information Sciences (JCIS 2005), Salt Lake City, UT.
19. Xu, R. W., Hsieh, K. C., Chan, U. H., Cheang, H. U., Shi, W. K., **Hon Chitin***, & Ieee. (2022, Feb 18-20). *Analytical Review on Developing Progress of the Quadruped Robot Industry and Gaits Research*. Paper presented at the 8th International Conference on Automation, Robotics and Applications (ICARA), Electr Network.

20. Zhang, J. F., Khalgui, M., Boussahel, W., Frey, G., **Hon Chitin***, Wu, N. Q., & Li, Z. W. (2015). Modeling and Verification of Reconfigurable and Energy-Efficient Manufacturing Systems. *Discrete Dynamics in Nature and Society*, 2015. doi:10.1155/2015/813476
21. Zhao, H. B., Zeng, Y. R., Han, Z. D., Zhuo, Y. J., Liang, Y. K., **Hon Chitin***, . . . Wu, C. L. (2021). Novel immune-related signature for risk stratification and prognosis in prostatic adenocarcinoma. *Cancer Sci*, 112(10), 4365-4376. doi:10.1111/cas.15062 **(Q2)**

Professional Certification and Awards

1. In December 2021, awarded a letter of commendation from Academician Zhong Nanshan for undertaking the prediction and early warning work of various domestic epidemic outbreak cities
2. In September 2022, awarded a letter of thanks from the Hainan Provincial Health Committee for undertaking the epidemic prediction work in Sanya City, Hainan Province
3. In July 2022, awarded a letter of thanks from the Macao SAR government for undertaking the prediction and research of the prevention and control of the epidemic in Macao
4. In July 2022, awarded a letter of thanks from the Beijing Public Health Emergency Management Center for the prediction of the epidemic situation in Beijing
5. In April 2022, awarded a letter of thanks from the Games Service Department of the Beijing Winter Olympics Organizing Committee for undertaking the special project of the Science and Technology Winter Olympics
6. In July 2021, awarded a letter of thanks from the Guangzhou Center for Disease Control and Prevention for undertaking the epidemic prediction work in Guangzhou
7. 2021 Guangdong-Hong Kong-Macao Greater Bay Area High-Value Patent Layout Competition-Excellence Award
8. 2019 Kirin Cup (hosted by China Service Robot and Special Robot Industry Alliance) – TOP20 Most Popular Commercial Service Robots in 2019
9. 2017 Shanghai International Service Robot Exhibition (hosted by China Service Robot Industry Alliance) – Best Commercial Robot
10. 2016 Geneva International Exhibition of Inventions - Silver Award (Second Inventor)
11. 2016, the third prize of the Science and Technology Invention Award of the Macao SAR Government Science and Technology Awards - DAA-based reverse secondary authentication technology
12. 2015 Asia Pacific Infocommunications Awards (APICTA) Merit Award - First Place in Tourism Category
13. 2014 Asia Pacific Infocommunication Awards (APICTA) Merit Award - 2nd Place in Information Security Category
14. 2012 Macao Special Administrative Region Government Science and Technology Award, Third Prize of Scientific and Technological Invention Award – Ultra-small Network Intrusion Detector Based on Reducing the Feature Dimension of SVM Classification Algorithm

Journal Editorship

Personal Website