# **Gongpu CHEN**

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# **Research Interests**

Information theory, Wireless communications and networking, Cyber-physical systems, Markov decision process, Reinforcement learning, Multi-armed bandits

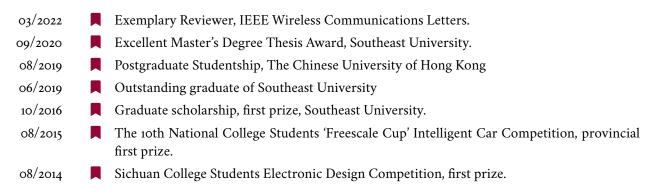
## Education

| 08/2019 – 07/2023 | The Chinese University of Hong Kong, Hong Kong, China.<br>Ph.D. in information engineering.                   |
|-------------------|---|
| 09/2016 – 06/2019 | <ul> <li>Southeast University, Nanjing, China.</li> <li>Master in Control Science and Engineering.</li> </ul> |
| 09/2012 – 06/2016 | University of Electronic Science and Technology of China, Chengdu, China. Bachelor in Automation Engineering. |

# **Publications and Preprints**

- [1] G. Chen and S. C. Liew, "Intermittently observable markov decision processes," *arXiv:2302.11761*, (Under Review).
- [2] ——, "An index policy for minimizing the uncertainty-of-information of markov sources," *IEEE Transactions on Information Theory*, vol. 70, no. 1, pp. 698–721, 2024. *9* DOI: 10.1109/TIT.2023.3315459.
- [3] G. Chen, S. C. Liew, and D. Gunduz, "Gino-q: Learning an asymptotically optimal index policy for restless multi-armed bandits," *arXiv preprint arXiv:2408.09882*, 2024.
- [4] G. Chen, L. Zhang, and S. C. Liew, "Periodic transmissions in random access networks: Stressed period and delay," *IEEE Transactions on Communications*, vol. 71, no. 7, pp. 4119–4132, 2023. *O* DOI: 10.1109/TCOMM.2023.3273419.
- G. Chen, S. C. Liew, and Y. Shao, "Uncertainty-of-information scheduling: A restless multi-armed bandit framework," *IEEE Transactions on Information Theory*, vol. 68, no. 9, pp. 6151–6173, 2022. *O* DOI: 10.1109/TIT.2022.3177891.
- [6] G. Chen, X. Cao, and J. Jin, "Joint scheduling and channel allocation for kalman filtering over multihop wirelesshart networks," *IEEE Transactions on Industrial Informatics*, vol. 17, no. 5, pp. 3555–3565, 2021.
   Ø DOI: 10.1109/TII.2020.2984491.
- [7] G. Chen, X. Cao, L. Liu, C. Sun, and Y. Cheng, "Joint scheduling and channel allocation for end-to-end delay minimization in industrial wirelesshart networks," *IEEE Internet of Things Journal*, vol. 6, no. 2, pp. 2829–2842, 2019. *O* DOI: 10.1109/JIOT.2018.2875508.
- [8] M. Lei, X. Cao, G. Chen, and C. Sun, "A consensus-state-aware adaptive algorithm for tuning csma parameters in multi-agent networks," in 2019 IEEE 28th International Symposium on Industrial Electronics (ISIE), 2019, pp. 1769–1774. O DOI: 10.1109/ISIE.2019.8781184.
- [9] G. Chen, R. Ma, M. Lei, and X. Cao, "Channel list selection based on quality prediction in wirelesshart networks," *Journal of Communications and Information Networks*, vol. 3, no. 3, pp. 49–56, 2018. *O* DOI: 10.1007/s41650-018-0030-5.

### **Honors and Awards**



#### Services

#### **Organisation of International Conferences**

- 12/2020
- **Session Chair**, Session A1: Learning Algorithm, IEEE International Conference on Parallel and Distributed Systems (IEEE ICPADS 2020).

#### **Journal Review**

- IEEE Transactions on Wireless Communications.
- IEEE Wireless Communications Letters.
- IEEE/CAA Journal of Automatica Sinica.

#### **Conference Review**

- IEEE Vehicular Technology Conference (VTC).
- IEEE International Conference on Parallel and Distributed Systems (ICPADS).
- IEEE/CIC International Conference on Communications in China (ICCC).

### **Teaching Assistant**

| IERG 2470 | <b>Probability Models and Applications</b> , Spring 2022. |
|-----------|---|
| IERG 2080 | Introduction to Systems Programming, Fall 2021.           |
| IERG 2470 | <b>Probability Models and Applications</b> , Spring 2021. |
| IERG 3010 | <b>Digital Communications</b> , Fall 2020.                |
| ENGG 2470 | <b>Probability for Engineers</b> , Spring 2020.           |
|           |   |

### Referees

Prof. Soung Chang Liew Professor The Chinese University of Hong Kong

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Prof. Xianghui Cao Professor Southeast University

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