

## Associate Professor Tsang, Cheung-choy Eric

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### Academic Qualification:

**Ph.D. in Computing**, HongKong Polytechnic University, 1996

**Bachelor of Science in Computer Studies (BScCS)**, City University of Hong Kong, 1990

### Teaching Area

Data Structures and Algorithms

Fundamentals of Multimedia Computing

Computer Organization and Architecture

Discrete Structures

Linear Algebra

Discrete Mathematics

Artificial Intelligence

Object Oriented Methods for Information System Development

Analysis and Design of Management Information System

### Research Area

Fuzzy Rough Sets

Neural Networks

Genetic Algorithms

Support Vector Machines

Adversarial Machine Learning

### Working Experience

2009-now: FIT, MUST, Macau, China

1996-2008: Hongkong Polytechnic University, Hongkong, China

### Academic Publication

Eric C. C. Tsang, Qinghua Hu, Degang Chen, “Feature and instance reduction for PNN classifiers based on fuzzy rough sets”, *Int. J. Machine Learning & Cybernetics*, 7(1): 1-11 (2016).

An S, Hu Q, Pedrycz W, Zhu P, Tsang ECC, “Data-Distribution-Aware Fuzzy Rough Set Model and its Application to Robust Classification”, *IEEE Transactions on Cybernetics*, 2016 Dec;46(12), pp. 3073-3085.

Jingjing Song, Eric C. C. Tsang, Degang Chen, Xibei Yang, “Approaches of minimal decision cost reduct for fuzzy decision-theoretic rough set model”, *Knowledge-Based Systems*, Volume 126, 15 June 2017, Pages 104-112

Bingjiao Fan, Eric C. C. Tsang, Weihua Xu, Jianhang Yu, “Double-quantitative rough fuzzy set based decisions: A logical operations method”, *Information Sciences*, Volume 378, 1 February 2017, Pages 264–281.

Eric C. C. Tsang, Jingjing Song, Degang Chen and Xibei Yang, “Order based hierarchies on hesitant fuzzy approximation space”, International Journal of Machine Learning and Cybernetics, May 2018, pp. 1-16.

Yanting Guo, Eric C.C. Tsang, Weihua Xu and Degang Chen, “Local logical disjunction double-quantitative rough sets”, Information Sciences, Volume 500, 21 May 2019, Pages 87–112.

Yanting Guo, Eric C.C. Tsang, Meng Hu and Xuxin Lin et al., “Incremental updating approximations for double-quantitative decision-theoretic rough sets with the variation of objects”, Knowledge-Based Systems, 1 October 2019.

## Professional Activity

Reviewers of Journal Papers:

IEEE Transactions on Neural Networks

IEEE Transactions on Fuzzy Systems

IEEE Transactions on Cybernetics

International Journal of Pattern Recognition and Artificial Intelligence

Fuzzy Sets and Systems,

International Journal of Information Sciences, etc.

Associate Editor:

IEEE Transactions on Systems, Man, and Cybernetics, Part B. 6/2004--2013

International Journal of Machine Learning and Cybernetics, 2016--present

Advances in Computational Intelligences 10/2020---present

Treasurer:

International Conference on Machine Learning and Cybernetics 2003-present, International

Conference on Wavelet Analysis and Pattern Recognition 2007-present, and vice chairman of IEEE

SMC Hong Kong Chapter

