## SEMINAR ANNOUNCEMENT

**DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING**
**COLLEGE OF DESIGN AND ENGINEERING**
Website: https://cde.nus.edu.sg/ece

*Area: Signal Analysis & Machine Intelligence*

*Host: Associate Professor Thomas Yeo*

*Lecture seminar*

| | | |
|---|---|---|
| **TOPIC** | : | **Dimensionality Reduction via Principal Component Analysis** |
| **SPEAKER** | : | **Dr. Zhou Kaiyang**<br>**Research Fellow**<br>**School of Computer Science and Engineering**<br>**Nanyang Technological University, Singapore** |
| **DATE** | : | **Wednesday, 11 January 2023** |
| **TIME** | : | **10.00AM to 11.00AM** |
| **VENUE** | : | **E5-03-20**<br>**Block E5, College of Design and Engineering, NUS** |

### ABSTRACT

In real-world machine learning applications, we often need to deal with high-dimensional data, such as images typically containing hundreds of thousands of pixels. The most common solution is to use unsupervised learning methods to identify some meaningful structure in data so that the dimensionality of the data can be reduced for better interpretability and improving performance. This lecture will first give a general background on unsupervised learning and then introduce a specific method called Principal Component Analysis (PCA), which is one of the most popular dimensionality reduction methods.

### BIOGRAPHY

Dr. Kaiyang Zhou is currently a research fellow at NTU Singapore. His research interests lie at the intersection of machine learning and computer vision. He has published over 20 papers at top-tier journals and conferences in relevant fields, with over 2,000 citations received in total. He is a guest editor of the flagship journal in computer vision, International Journal of Computer Vision (IJCV), and has served as an area chair and senior program committee member for multiple AI conferences. He received his PhD in Computer Science from the University of Surrey, UK.

https://cde.nus.edu.sg/ece/highlights/events/