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Analysis and Applications of Human Emotion Dynamics (AAHED)

Editorial

Clement Leung

SCHOOL OF SCIENCE AND ENGINEERING &

GUANGDONG PROVINCIAL KEY LABORATORY OF FUTURE NETWORKS OF INTELLIGENCE

THE CHINESE UNIVERSITY OF HONG KONG, SHENZHEN, CHINA

clementleung@cuhk.edu.cn

香港中文大學(深圳)
The Chinese University of Hong Kong, Shenzhen

Clement LEUNG

- FULL PROFESSORSHIPS at

    - University of London, UK; National University of Singapore; Chinese University of Hong Kong, Shenzhen, China; Hong Kong Baptist University; Victoria University, Australia

- Two US patents, five books and over 150 research articles

- Program Chair, Keynote Speaker, Panel Expert of major International Conferences

- Editorial Board of nine International Journals

- Listed in Who's Who in the World and Great Minds of the 21st Century

- Fellow of the International Academy, Research, and Industry Association, Fellow of the British Computer Society, and Fellow of the Royal Society of Arts

Contemporary Society Induces Significant Pressures on Individuals

Pressures can stem from various sources

The intricate nature of human interaction and brain processes underscore the critical importance of accurately perceiving and articulating emotions

Emotions profoundly shape individual experiences, influencing every facet of life:

| inter-personal interactions | decision making processes | overall well-being | job performance |

Human Emotion Dynamics

▶ Human emotion dynamics includes identifying and interpreting human emotions

▶ People vary significantly in their ability to accurately recognize and differentiate the emotions of others

▶ Evolution of emotions over time

Emotion can be influenced by music

- Music volume (dynamics)
- Music tempo –
  - e.g., syncopation
- Piano Playing style
  - Glissando
  - Trill
  - Arpeggio
  - Octave

Emotion can be influenced by visual arts

- Colour tone and variety
- Textures
- Contents
- Shapes
- Scenery
- Season
- Time of day

Healthy Emotions are Necessary for Safety-Critical Situations
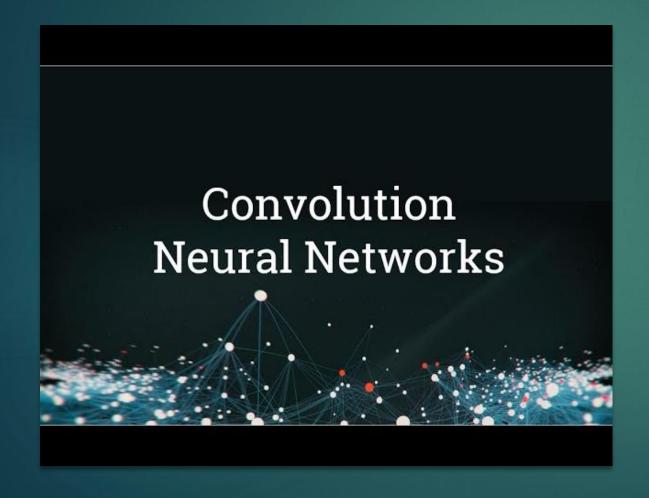

- Pilots

- Surgeons

- Drivers

- Prediction of Emotion Evolution for Duty Roster

Research Papers

- Dynamic Emotion Analysis in Piano Music Based on Performance Techniques

- CNN-Based Emotion Classification in Visual Art for Therapeutic and Creative Applications

- Predicting Emotion States Using Markov Chains

Deep Learning

▶ Convolution Neural Networks are used to identify emotions

Thank you!