

Session Title:

[TG2] [SS] Emerging Electromagnetic Technologies for Medical

Diagnosis and Therapy

**Session Date:** 

December 4 (Thu.), 2025

**Session Time:** 

10:30-12:10

**Session Room:** 

Room G (303)

[TG2-1] 10:30-10:50

# A Knowledge-Fusion Deep Learning Approach for Premature Beat Classification Using mmWave Radar in Clinical Settings

Yuchen Li, Jie Cao and Gaomin Xue (Shanghai Jiao Tong University, China); Xiaolei Xu (Xinhua Hospital Affiliated to Shanghai Jiaotong University School of Medicine, USA); Qishan Chen and Li Zhang (Xinhua Hospital Affiliated to Shanghai Jiaotong University School of Medicine, China); Changzhan Gu (Shanghai Jiao Tong University, China)

[TG2-2] 10:50-11:10

### Transcutaneous Auricular Vagus Nerve Stimulation for Cognitive Enhancement

Sang Beom Jun (Ewha Womans University, Korea (South))

[TG2-3] 11:10-11:30

#### Preliminary Design of a Modified Birdcage Receiver RF Coil for 23Na Breast MRI at 7T

Sheikh Faisal Ahmad (Kyungpook National University & Institute of Advance Convergence Technology, Korea (South)); Sukhoon Oh (Korea Basic Science Institute, Korea (South)); Hyun Deok Kim (Kyungpook National University, Korea (South))

[TG2-4] 11:30-11:50

## Wrist-Worn Frequency-Modulated Continuous Wave (FMCW) Radar for Respiration Monitoring

Iou Heng Chen (National Sun Yat-sen University, Taiwan); Ji-Xun Zhong (National Sun Yat-Sen University, Taiwan); Ju-Yin Shih and Fu-Kang Wang (National Sun Yat-sen University, Taiwan)

[TG2-5] 11:50-12:10

## **Terahertz Radiation for Novel Cancer Therapy**

Joo-Hiuk Son (Korea (South))