전 자 전 기 컴 퓨 터 학 부
세 미 나 안 내

1. 제　　목 : Real-time fMRI and neurofeedback training

2. 발 표 자 : 이상견 박사 (Max Planck Institute for Biological Cybernetics)

3. 일　　시 : 2012년　05월　22일(화)　10:30 ~　12:30

4. 장　　소 : 경북대학교 IT-2호관 104호

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7. 내용요약 :

The development of real-time functional Magnetic Resonance Imaging (rtfMRI)and the advance in computer technology allow us to acquire functional brain images and analyze them online during an ongoing task.
In this talk, I will present how the rtfMRI has been used to self-regulate the activation of a single brain area. The regulation was guided by the feedback signal (e.g., visual feedback), which reflects the blood-oxygen-level dependent (BOLD) signal of the target area. Usually, through a few reguation training sessions, human participants could improve their regulation capability.
This neurofeedback training has advantages over the standard neuroimaging by modulating activation of a hypothetic area actively rather than observing the passive response to stimuli.
I will also introduce subsequent developments to use multivariate methods, which use activation patterns of multiple brain areas/voxels to assess the brain states and generate the feedback signal.

※ 주최 : BK21 정보기술연구인력양성사업단, 전자전기컴퓨터학부
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