
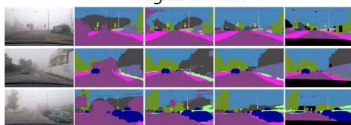

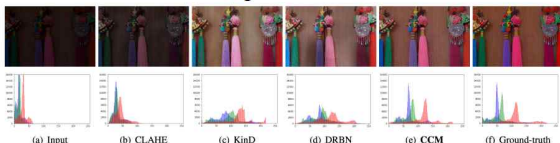
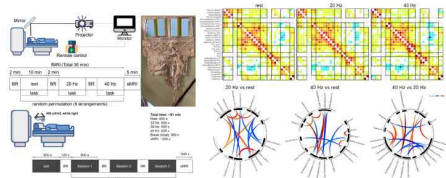
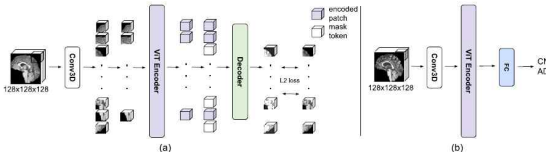


<div><div><p>Brain Reverse Engineering and Imaging Lab</p><p>Brain Reverse Engineering and Imaging Laboratory</p></div></div>	<div><div><div>Contact information</div><div>Professor : ITC building 511 TEL : 042-350-3490</div><div>Lab. : ITC building 521 TEL : 042-350-8172~4</div><div>Website : http://brain.kaist.ac.kr</div></div></div>
<div><div><div>Current state of the Lab. (in 2025 Spring Semester)</div><div>PhD Students: 7 Master's Student: 3 Staff: 2</div></div></div>	
<div><div><div>Research Areas</div><div><div><div>Deep Learning Group</div><div><div>• Segmentation</div></div><div>• 3D Vision</div><div><div>Recoloring</div></div><div>• Image Restoration</div></div></div><div><div>Brain Group</div><div><div>• fMRI experiment design and analysis</div></div><div>• Medical imaging (Segmentation, Classification)</div></div></div></div>	

Our laboratory is divided into two main groups.

The AI group have studied image restoration, semantic segmentation and generation task (including 3D) in computer vision, as well as medical imaging. Inspired by the success of GPT, we have also focused on vision-language multi-modal task.

The brain imaging group have conducted brain analysis, including decoding human emotions and reconstructing arm, movements) using brain imaging technique (fMRI, EEG) and machine learning model.

<div><div><div>Recommended courses & Career after graduation</div><div><Recommended courses></div><p>We recommend to take Introduction to Brain IT and coursework in machine learning, information theory, and signal processing.</p><div><Career after graduation></div><ul style="list-style-type: none">• Company: Samsung, LG, ETRI, Hyndai Motors, etc• Study Abroad: UCLA, Stanford, etc• Start-up: Omnious, bHaptics, INNERVERZ</div></div>	<div><div><div>Introduction to other activities besides research</div><p>In our Laboratory, we freely share and socialize cultural life such as monthly birthday parties, cultural days, athletic competitions, strawberry festivals, opening and closing parties, MT.</p><p>Professor Dae-Shik Kim is currently serving as the director of Kyobo/Dplanex-KAIST AI Center for Future of Insurance.</p></div></div>
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Introduction to the Lab.

Our laboratory conducts studies that lead the current flow of science and technology. We are actively engaged in cutting-edge research in areas such as deep learning, language model, neuromorphic engineering and brain decoding, enriched by active collaboration with leading groups.

You can choose from a wide variety of topics, not limited to one, and there are many internal studies to try and choose from. Laboratory seminar rooms allow students to study without time and space limitations. Freshman tutorials are organized in the laboratory, so students who are new to deep learning can study with interest.

Recent research achievements ('23~'25)

[1] Jae-Hyeok Lee and Dae-Shik Kim, "ICE-NeRF: Interactive Color Editing of NeRFs via Decomposition-Aware Weight Optimization", International Conference on Computer Vision (ICCV), Paris, France, 2023.

[2] Kassymzhomart Kunanbayev, Vyacheslav Shen, Dae-shik Kim. (2024) "Training ViT with Limited Data for Alzheimer's Disease Classification: an Empirical Study", International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI), 2024.

[3] Donggon Jang, Sunhyeok Lee, Gyuwon Choi, Yejin Lee, Sanghyeok Son, and Dae-Shik Kim, "Energy-based Domain Adaptation without Intermediate Domain Dataset for Foggy Scene Segmentation", IEEE Transactions on Image Processing, October 2024.

[4] Seonghak Kim*, Gyeongdo Ham*, Yucheol Cho* and Daeshik Kim, "Robustness-Reinforced Knowledge Distillation with Correlation Distance and Network Pruning", IEEE Transactions on Knowledge and Data Engineering, Aug. 2024. (*These authors equally contributed to this work.)

[5] Suin Lee and Daeshik Kim, "TextTailor: Customized Text-aligned Texturing via Effective Resampling", International Conference on Learning Representations (ICLR), Singapore, Apr 24-28, 2025.

[6] Donggon Jang*, Yucheol Cho*, Suin Lee, Taehyeon Kim, and Daeshik Kim, "MMR: A Large-scale Benchmark Dataset for Multi-target and Multi-granularity Reasoning Segmentation", International Conference on Learning Representations (ICLR), Singapore, Apr 24-28, 2025. (*Equal contribution)