Theme: Machine Intelligence

- Sub Theme: Customizing Generative AI and LLM Models

We are excited to announce a call for proposals in the cutting-edge fields of Generative Artificial Intelligence (AI) and Large Language Models. Customizing existing pretrained large language models and generative AI models offers the ability to tailor their behavior and output to specific requirements and enable fast development. Customization empowers users to harness the power of these models while ensuring output quality and achieving desired outcomes across a wide range of applications, from content generation and conversational agents to virtual assistants and data analysis. We are especially interested in customization based on open source models.

1. Large Language Models: Projects that leverage large-scale language models, such as GPT-3 and beyond, to enhance natural language processing tasks, including language understanding, question answering, text summarization, and machine translation.   We are especially interested in projects that focus on enhancing virtual assistants and chatbots through the use of generative AI and large language models, enabling more natural and context-aware interactions with users.

2. Large Multimodal Models: Proposals that focus on developing large-scale multimodal models capable of understanding and generating diverse outputs across multiple modalities, including text, images, audio, and video. These models should demonstrate advanced capabilities in multimodal learning, content generation, and cross-modal understanding.

We are mostly interested in fundamental research that solve problems arising in the above areas, such as but not limited to:

1. Enable fast expansion to multilingual models.
2. Efficient training strategies to improve training efficiencies.

3. Reduce model size and latency during inference so that it can run on edge device.

4. Reduce hallucinations, bias and potential security threats.

5. Improve action planning and decision making capability.

※ *The topics are not limited to the above examples and the participants are encouraged to propose the original idea.*

※ *Funding: Up to USD 150,000 per year*