Division of Electrical, Information and Communication Engineering	Research field	Natural Language Processing	Lab. ID EI28
Laboratory web site			

Research subjects

Natural Language Processing (NLP) is a technology that enables computers to understand and generate human language used in everyday life. It is an interdisciplinary research area that closely involves computer science and linguistics, playing a crucial role in artificial intelligence research. In our rapidly digitalizing modern society, NLP is extremely important in a wide range of applications, such as machine translation, automatic summarization, and other text generation tasks, as well as text classification tasks like sentiment analysis.
In recent years, the performance of various NLP tasks has improved dramatically with the rise of Large Language Models (LLMs) or pre-trained language models. Particularly notable progress has been made in the field of text generation. These models learn linguistic patterns and context from vast amounts of text data, demonstrating flexibility and comprehension close to human language use.
However, many practical challenges remain in the latest NLP technologies, including LLMs. To address these challenges, our laboratory will conduct research on various NLP tasks and their underlying foundational technologies. We aim to contribute our research outcomes to society.

Master/Doctor course: Education policy, curriculum, typical activity in the laboratory

We aim to create a dynamic learning environment that goes beyond traditional lab-wide seminars. Our plan includes organizing specialized study groups focused on specific research topics within NLP. Additionally, we recognize the importance of broader computer science knowledge, so we're planning summer intensive workshops and hackathons on crucial CS topics that may not directly relate to NLP.
To foster peer learning, we'll create opportunities for members interested in similar research areas to come together and share knowledge. However, we also want to encourage interdisciplinary thinking. Our goal is to have each member engage with multiple research themes, helping them understand the connections between different areas of study.

Daily life in the laboratory, etc.

We strongly encourage regular attendance at the lab. While someone who can solve every problem alone might not need to be here, that's rarely the case for most of us. Being present in the lab can spark productive discussions, accelerate your programming work, and even lead to research breakthroughs through casual conversations.
You've chosen to be part of a university research lab – make the most of this opportunity for your personal and professional growth. As you progress in your studies, we also want you to consider mentoring junior members and collaborating on research projects.

Message or comments by the laboratory faculty staffs

Natural Language Processing (NLP) is a multifaceted field that draws on various areas of computer science, including machine learning, algorithms, and data structures. We welcome students who are interested not only in the linguistic aspects of NLP but also in these core computer science technologies.
Don't worry if you're not an expert coder yet – what's more important is your willingness to learn and improve. As faculty members, we're committed to providing as much support as we can to help you succeed. However, it's crucial to remember that the primary driver of your research will be you, the student. We expect and encourage you to take initiative in your research projects.

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