ROCLING 2026

The 38th Conference on Computational Linguistics and Speech Processing (ROCLING 2026)

Proceedings of the Conference

November 6-7, 2026

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Message from the Conference Chairs

It is our great pleasure to present the proceedings of the 38th Conference on Computational Linguistics and Speech Processing (ROCLING 2026), held at National Tsing Hua University (NTHU) in Hsinchu, Taiwan, on November 6–7, 2026.

For more than three decades, ROCLING has served as a premier forum for presenting original research and showcasing innovative systems and techniques in natural language processing and speech processing. The papers collected in this volume reflect the breadth and pace of the field, spanning large language models, information retrieval and evaluation, conversational AI, speech and audio processing, and language technologies for Taiwanese and other low-resource languages.

ROCLING 2026 continues the multi-track submission format introduced in 2025, comprising an archival track, a non-archival track, and a special-session track. Papers accepted to the archival track appear in these proceedings and in the ACL Anthology, and papers accepted to the special-session track, which were reviewed by dedicated committees, are likewise included in these proceedings. The non-archival track offered authors the opportunity to present ongoing work, or work under review at other venues, to the ROCLING community without formal publication. In addition, selected papers will be invited for extension and publication in a special issue of the International Journal of Computational Linguistics and Chinese Language Processing (IJCLCLP).

The conference program features two keynote speeches by distinguished scholars. Prof. Kotaro Funakoshi of the Institute of Science Tokyo addresses the development of attentive machines, from conversation games to respiration and swallowing rehabilitation, and Prof. Berrak Sisman of Johns Hopkins University presents recent advances in expressive, secure, and health-centric speech intelligence. The program also includes a tutorial on frontiers and engineering practices in memory management for large language model agents, and a special session on Creativity and Language Play in Digital Discourse, which brings linguistic and computational perspectives into dialogue. The ROCLING 2026 Shared Task on Chinese Dimensional Sentiment Analysis, which focuses on texts written by new immigrants, reflects the community's continued commitment to shared benchmarks and socially meaningful applications. Finally, the NSTC Division of Intelligent Computing presents its planning report on natural language and speech signal processing, outlining future research directions in Taiwan.

The success of ROCLING 2026 is owed to the dedication of many individuals. We are deeply grateful to the Program Chairs, Prof. Po-Chih Kuo, Prof. Lung-Hao Lee, and Prof. An-Zi Yen, for assembling a rigorous and forward-looking technical program, and to the Keynote Chair, Publication Chairs, Shared Task Chair, and Special Session Chair for their invaluable contributions. We sincerely thank all authors, reviewers, session chairs, and volunteers, as well as the Association for Computational Linguistics and Chinese Language Processing (ACLCLP) for its continued support. We also gratefully acknowledge the generous sponsorship of E.SUN Bank, eLAND, and Chunghwa Telecom.

We hope that the work presented in these proceedings will inspire new ideas, foster lasting collaborations, and further our shared mission of advancing human language and speech technologies.

Sincerely,

Prof. Yi-Shin Chen, National Tsing Hua University
Prof. Hung-Yu Kao, National Tsing Hua University

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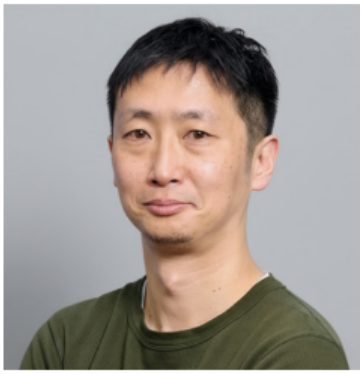
Keynote Talk

Towards attentive machines: from a conversation game to respiration and swallowing rehabilitation

Kotaro Funakoshi
Institute of Science Tokyo



2026-11-06 14:00:00 – Room: **CS Auditorium, B1, C.L. Liu Building**

Abstract: Attention has become a technical buzzword as a core concept underlying the Transformer architecture that powers generative AI and large language models. This talk approaches attention from a somewhat different perspective, exploring its role and importance in dialogue.
First, I examine a Wizard-of-Oz dialogue experiment in which a humanoid robot plays a simple conversational game with multiple users. Drawing on qualitative analysis, I consider why a human-operated robot can create rich, enjoyable interactions despite its highly limited repertoire of behaviors, whereas an automated dialogue system capable of similar behaviors can produce interactions that feel monotonous and boring. The analysis suggests that one major factor is the system's lack of attention or awareness to its users and the unfolding situation.
Next, I introduce our series of studies on incorporating users' breathing information into dialogue systems. Breathing information allows a system to anticipate when a user will speak and time its own utterances carefully to avoid overlapping speech. Furthermore, having a robot display simulated breathing movements synchronized with the user's breathing can improve certain aspects of the user's impression of the robot.
Finally, I present our ongoing research on supporting swallowing rehabilitation. Through the development of a prototype system, we identified the same fundamental challenge encountered in the conversational game: a lack of attention to the user and the situation, and an inability to respond accordingly. I conclude by outlining directions for future research.

Bio: Kotaro Funakoshi is currently an associate professor at the Institute of Integrated Research, Institute of Science Tokyo since 2020. Formerly with Honda Research Institute Japan Co., Ltd. from 2006, he also served as a program-specific associate professor with the Cooperative Intelligence Joint Chair at Kyoto University from 2017 to 2020. He received his B.E., M.E., and Dr.Eng. degrees from Institute of Science Tokyo (formerly Tokyo Institute of Technology) in 2000, 2002 and 2005, respectively. His research interests include natural language processing, multi-modal dialogue systems, and human-machine interaction. He recently served the general chair of a Japanese domestic conference, the 31st Annual Meeting of the Association for Natural Language Processing (NLP 2025), and served a program chair of an international conference, the 27th Annual Meeting of the Special Interest Group on Discourse and Dialogue (SIGDIAL 2026).

Keynote Talk

Recent Advances in Expressive, Secure, and Health-Centric Speech Intelligence

Berrak Sisman
Johns Hopkins University



2026-11-07 09:00:00 – Room: **CS Auditorium, B1, C.L. Liu Building**

Abstract: In this talk, Dr. Sisman presents recent research from her lab at the Johns Hopkins University Center for Language and Speech Processing (CLSP) on human-centered speech intelligence. The keynote highlights recent progress in controllable speech synthesis and voice conversion, robust speech deepfake detection under expressive conditions, mechanistic interpretability of large audio-language models, and clinical applications for speech and language technologies, such as Alzheimer's and depression detection.

Bio: Berrak Sisman is an Assistant Professor of Electrical and Computer Engineering at Johns Hopkins University (JHU), where she leads the Speech and Machine Learning (Smile) Lab as part of the Center for Language and Speech Processing (CLSP). She received her Ph.D. from the National University of Singapore. Her research centers on human-centered speech and audio intelligence, focusing on expressive speech synthesis, voice conversion, speech deepfake detection, and the security, privacy, and health information encoded in the human voice. Her research has received multiple recognitions, including the 2026 Speech Communication Best Journal Paper Award, an NSF CAREER Award (2024), Amazon Faculty Awards (2023, 2025), and the Singapore Ministry of Education Tier 2 Award (2023). Her work spans secure AI, healthcare, human–machine interaction, and assistive technologies. She is an Associate Editor for IEEE Transactions on Affective Computing, and an elected member of the IEEE Speech and Language Technical Committee (SLTC). She serves on the ISCA Board.

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