IJCNLP-AACL 2023

The First Workshop on South East Asian Language Processing

Proceedings of the Workshop

November 1, 2023

The IJCNLP-AACL organizers gratefully acknowledge the support from the following sponsors.



Gold



Silver





©2023 The Asian Federation of Natural Language Processing and The Association for Computational Linguistics

Order copies of this and other ACL proceedings from:

Association for Computational Linguistics (ACL) 209 N. Eighth Street Stroudsburg, PA 18360 USA Tel: +1-570-476-8006 Fax: +1-570-476-0860 acl@aclweb.org

ISBN 979-8-89176-023-3

Preface

This volume contains the proceedings of the First Workshop in South East Asian Language Processing, held in conjunction with the 13th International Joint Conference on Natural Language Processing and the 3rd Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics (IJCNLP-AACL 2023).

South East Asia (SEA) is one of the most linguistically diverse regions in the world, with over 1,200 languages spoken by 680 million people. However, the diversity of South East Asian languages has long been at risk due to the emphasis on national languages as the lingua franca in South East Asian countries at the end of colonization, and the increasing prominence of English due to the necessities of globalization.

This year is the first year we are conducting this workshop with the aim of bringing together practitioners from academia, government, and industry interested in the research and development of language technologies for SEA languages. The workshop also aims to build an inclusive community of everyone passionate about SEA languages, increase community awareness of works that have been developed to date on these languages, and foster collaborations that will strengthen and spur NLP research and development in SEA languages.

The workshop received 14 submissions of technical papers (12 long, 2 short), of which 10 were accepted (8 long, 2 short), for an acceptance rate of 71%. We thank the Programme Committee members who provided extremely valuable reviews in terms of technical content.

The accepted papers cover a wide range of natural language processing research, including research on languages in the Philippines and Indonesia, as well as languages in South Asia such as Bangla, Hindi, and Indic languages. The papers tackle a variety of tasks in NLP, including named entity recognition, word sense and synset induction, grammatical error correction, machine translation, dialogue systems, sentiment analysis, text generation, large language models alignment, as well as datasets, benchmarks, and language resources construction. In the future, we hope that this workshop will continue to attract submissions of diverse research works on SEA languages.

We look forward to an enriching discussion on research in South East Asian language processing at the hybrid event on November 1, 2023!

November 2023

Derry Wijaya, Alham Fikri Aji, Clara Vania, Genta Indra Winata, Ayu Purwarianti

Organizing Committee

Derry Wijaya, Monash University Indonesia Alham Fikri Aji, Mohamed bin Zayed University of Artificial Intelligence (MBZUAI) Clara Vania, Amazon Genta Indra Winata, Bloomberg Ayu Purwarianti, Bandung Institute of Technology (ITB)

Program Committee

Peerat Limkonchotiwat, Vidyasirimedhi Institute of Science and Technology (VISTEC) Jan Christian Blaise Cruz, Samsung R&D Institute Philippines Garry Kuwanto, Boston University Phu Mon Htut, Amazon Web Services AI Labs (AWS AI Labs) Samuel Cahyawijaya, Hong Kong University of Science and Technology (HKUST) David Moeljadi, Kanda University of International Studies Haryo Akbarianto Wibowo, Mohamed bin Zayed University of Artificial Intelligence (MBZUAI) Radityo Eko Prasojo, Pitik.id Andros Tjandra, Facebook AI Research (FAIR, Meta) Rahmad Mahendra, RMIT University Zilu Tang, Boston University Holy Lovenia, AI Singapore, National University of Singapore Samuel Louvan, Amazon

Table of Contents

<i>Towards Automatic Construction of Filipino WordNet: Word Sense Induction and Synset Induction Using</i> <i>Sentence Embeddings</i> Dan John Velasco, Axel Alba, Trisha Gail Pelagio, Bryce Anthony Ramirez, Jan Christian Blaise Cruz, Unisse Chua, Briane Paul Samson and Charibeth Cheng
Developing a Named Entity Recognition Dataset for Tagalog Lester James Miranda
Balarila: Deep Learning for Semantic Grammar Error Correction in Low-Resource Settings Andre Dominic H. Ponce, Joshue Salvador A. Jadie, Paolo Edni Andryn Espiritu and Charibeth Cheng
Utilizing Weak Supervision to Generate Indonesian Conservation Datasets Mega Fransiska, Diah Pitaloka, Saripudin Saripudin, Satrio Putra and Lintang Sutawika* 30
InstructAlign: High-and-Low Resource Language Alignment via Continual Crosslingual Instruction Tuning Samuel Cahyawijaya, Holy Lovenia, Tiezheng Yu, Willy Chung and Pascale Fung
<i>SentMix-3L: A Novel Code-Mixed Test Dataset in Bangla-English-Hindi for Sentiment Analysis</i> Md Nishat Raihan, Dhiman Goswami, Antara Mahmud, Antonios Anastasopoulos and Marcos Zampieri
<i>IndoToD: A Multi-Domain Indonesian Benchmark For End-to-End Task-Oriented Dialogue Systems</i> Muhammad Kautsar, Rahmah Nurdini, Samuel Cahyawijaya, Genta Winata and Ayu Purwarianti85
Replicable Benchmarking of Neural Machine Translation (NMT) on Low-Resource Local Languages in Indonesia Lucky Susanto, Ryandito Diandaru, Adila Krisnadhi, Ayu Purwarianti and Derry Tanti Wijaya 100

Conference Program

14:00–14:05 Welcome Remarks

- 14:05–14:20 Towards Automatic Construction of Filipino WordNet: Word Sense Induction and Synset Induction Using Sentence Embeddings
 Dan John Velasco, Axel Alba, Trisha Gail Pelagio, Bryce Anthony Ramirez, Jan Christian Blaise Cruz, Unisse Chua, Briane Paul Samson and Charibeth Cheng
- 14:20–14:35 *Low-Resource Clickbait Spoiling for Indonesian via Question Answering* Ni Putu Intan Maharani, Ayu Purwarianti and Alham Fikri Aji
- 14:35–14:50 *Developing a Named Entity Recognition Dataset for Tagalog* Lester James Miranda
- 14:50–15:05 Balarila: Deep Learning for Semantic Grammar Error Correction in Low-Resource Settings
 Andre Dominic H. Ponce, Joshue Salvador A. Jadie, Paolo Edni Andryn Espiritu and Charibeth Cheng
- 15:05–15:20 Unsupervised Approach to Evaluate Sentence-Level Fluency: Do We Really Need Reference?
 Gopichand Kanumolu, Lokesh Madasu, Pavan Baswani, Ananya Mukherjee and Manish Shrivastava

15:20–15:50 Coffee Break

- 15:50–16:05 Utilizing Weak Supervision to Generate Indonesian Conservation Datasets Mega Fransiska, Diah Pitaloka, Saripudin Saripudin, Satrio Putra and Lintang Sutawika*
- 16:05–16:20 InstructAlign: High-and-Low Resource Language Alignment via Continual Crosslingual Instruction Tuning Samuel Cahyawijaya, Holy Lovenia, Tiezheng Yu, Willy Chung and Pascale Fung
- 16:20–16:35 SentMix-3L: A Novel Code-Mixed Test Dataset in Bangla-English-Hindi for Sentiment Analysis
 Md Nishat Raihan, Dhiman Goswami, Antara Mahmud, Antonios Anastasopoulos and Marcos Zampieri
- 16:35–16:50 IndoToD: A Multi-Domain Indonesian Benchmark For End-to-End Task-Oriented Dialogue Systems
 Muhammad Kautsar, Rahmah Nurdini, Samuel Cahyawijaya, Genta Winata and Ayu Purwarianti
- 16:50–17:05 Replicable Benchmarking of Neural Machine Translation (NMT) on Low-Resource Local Languages in Indonesia
 Lucky Susanto, Ryandito Diandaru, Adila Krisnadhi, Ayu Purwarianti and Derry Tanti Wijaya

No Day Set (continued)

17:05–17:10 Best Paper Award Announcement

17:10–17:20 Closing Remarks