

IJCNLP-AAACL 2023

**The 13th International Joint Conference on Natural
Language Processing and the 3rd Conference of
the Asia-Pacific Chapter of the Association for
Computational Linguistics**

Proceedings of the Student Research Workshop

November 1 – 4, 2023

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Message from the General Chair

Welcome to IJCNLP-AAACL 2023, the 17th International Joint Conference on Natural Language Processing (IJCNLP) and the 3rd Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics (AAACL). The conference will be held in Nusa Dua, Bali, Indonesia, during November 1-4, 2023.

The joint conferences of IJCNLP and AAACL are organized by alternating leadership in the Asia-Pacific region, in odd years by Asian Federation of Natural Language Processing (AFNLP) and in even years by AAACL, except when the annual meetings of ACL are offered in the region every three years, in which case the conferences will be offered and organized solely by ACL. This year, the conference is organized by AFNLP.

As President of AFNLP, I have formed the Conference Coordination Committee (CCC) last year with executive members of AFNLP: Sadao Kurohashi (Vice President), Min Zhang (Secretary), Liang-Chih Yu (Honorary Treasurer), and Minghui Dong (Web Master). Xuanjing Huang has participated in the meetings of the committee as AAACL Representative. I am truly thankful for their dedication in the initial stages as CCC members, in particular during the selection of the Local Chairs together with the conference venue and the nomination and appointment of General Chair and Program Committee Chairs, and, after it is decided that I also serve as General Chair of the conference, for their service as respective chairs throughout the conference preparation stages. Their continued support has been of tremendous help and is much appreciated.

I would also like to thank deeply the entire organizing committee of the conference for their hardwork and superb handling of difficult situations, most of all due to the much limited time to address their respective tasks.

- Program Committee Chairs: Yuki Arase, Baotian Hu and Wei Lu have managed the most critical task of establishing the main program of the conference, which includes, among many others, forming and coordinating the Program Committee, constructing the call for papers with a timely theme track, overseeing the review process on both Softconf and ARR, making decisions on paper acceptance, selecting keynote speakers and putting together the program schedule, and most of all communicating with the reviewers, authors, and other committee members over numerous times during the entire process. This is a formidable task, and their efforts for leading to its successful completion are so much appreciated.
- Tutorial Chairs: Yun-Nung (Vivian) Chen and Sadao Kurohashi have gone through the tutorial proposals to select six tutorials that are well balanced both topically and geographically, actively fostering diversity and inclusion.
- Workshop Chairs: Kehai Chen and Lun-Wei Ku have gone over the workshop proposals to select eight strong workshops, NLPWC, WIESP, Eval4NLP, SocialNLP, SEA, FinNLP, NLInt, and ArtOfSafety.
- Demo Chairs: Sriparna Saha and Herry Sujaini have overseen the process of selecting papers among those submitted to the system demonstration session independently of the main program.
- Publication Chairs: Minghui Dong and Kotaro Funakoshi have put together all the documents and articles to construct the conference proceedings expertly, cordially and in a timely manner.
- Sponsorship Chairs: Min Zhang, Satoshi Sekine, Haofeng Wang, and Zhongqing Wang have worked hard to solicit funding to support the conference, and successfully, despite the short time to operate. We are all much grateful to the funding organizations for their generous help.

- Finance Chair: Liang-Chih Yu has always been the person to consult whenever any financial issues arise. Things are not yet fully over at the time of preparing for this message, but are believed to come to self-sustainment, with some room for financial aid as well, thanks to the valiant efforts of all the people involved.
- Website & App Chair: Juntao Li has worked single-handedly and dependably to reflect all the requests to post important news at our conference homepage.
- Publicity & Social Media Chairs: Koustava Goswami and JinYeong Bak have worked to disseminate information over social media as widely as possible whenever there are notable events for the conference.
- Handbook Chairs: Yasuhide Miura and Yunita Sari have worked very hard to meet the deadline for the conference handbook when there is really not much time left. The help of Sonoko Miura as Conference Handbook Designer is also gratefully acknowledged.
- Faculty Advisors to Student Research Workshop (SRW): Hyeju Jang, Yugo Murawaki, and Derek Fai Wong have worked to oversee the SRW, in particular communicating with its chairs, Dongfang Li, Rahmad Mahendra and Zilu Peter Tang. The efforts of the faculty advisors and SRW chairs are much appreciated.
- Diversity & Inclusion Chair: Hwanhee Lee has worked to resolve requests for financial aid, mostly in the form of registration waiver, and as amicably as possible, under a strict limit on granting such requests.
- Registration Chair: Dessi Puji Lestari has worked to oversee the process of registration, together with the kind help of Minghui Dong as the manager of the registration site.
- Local Chairs: Derry Wijaya, Ayu Purwarianti and Adila Alfa Krisnadhi have worked to resolve practically numerous issues, many times beyond the duties of local chairs, after successfully bidding to host the conference in Nusa Dua, Bali, Indonesia. It is with much gratitude and respect that I commend their efforts to the fullest.

In summary, I can only say that their sense of duty and responsibility has been critical to meeting and resolving so many difficulties that we faced along the way. Many, many thanks to all of them.

The mode of the conference has been determined early on to be hybrid, considering the fact that we are not fully over the coronavirus pandemic. However, it has not been quite clear until very recently whether we would need, and can afford, the top-notch professional service of an on-demand video platform such as Underline for a hybrid conference. I am very grateful to all the chairs for the remarkable patience and very happy with the concerted decision to go for the service of Underline, albeit in a limited scope. I wish to thank kindly Damira Mrcic and Sol Rosenberg, representatives of Underline, for the patience and expert help. I also thank Richard Gerber for the help with our use of Softconf.

The Local Chairs made a proposal to host the conference in Nusa Dua early on, but it took all of us a long time to finally come to a decision to choose Grand Hyatt Bali, Nusa Dua, Bali, Indonesia for its exceptional location in the region as the conference venue. Its daytime temperatures are expected to reach 31°C, with the nighttime temperatures of around 24°C. I wish a very pleasant time for all the off-line participants of the conference and an equally memorable time for all the on-line participants.

Welcome to the conference and Nusa Dua!

IJCNLP-AAACL 2023 General Chair
 Jong C. Park
 Korea Advanced Institute of Science and Technology (KAIST)

Message from the Chair of Student Research Workshop

Welcome to the IJCNLP-AAACL 2023 Student Research Workshop (SRW)!

The IJCNLP-AAACL 2023 SRW is held in conjunction with the 13th International Joint Conference on Natural Language Processing (IJCNLP) and the 3rd Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics (AAACL)

The IJCNLP-AAACL 2023 SRW provides a forum for student researchers who are investigating various areas related to Computational Linguistics and Natural Language Processing. The workshop provides an excellent opportunity for student participants to present their work and receive valuable feedback from the international research community as well as from selected mentors - experienced researchers, specifically assigned according to the topic of their work, who will prepare in-depth comments and questions in advance of the presentation. The workshop's goal is to aid students at multiple stages of their education: including undergraduate, master's, junior, and senior PhD students. This year's IJCNLP-AAACL SRW raise a theme of understanding language models, which is reflected in the choice of our keynote speaker (Tom McCoy).

The submissions were organized into two categories, that are general research papers and thesis proposals, following the tradition established by the previous SRWs:

- General research papers: Papers in this category can describe completed work, or work in progress with preliminary results. For these papers, the first author must be a current graduate or undergraduate student.
- Thesis proposals: This category is appropriate for advanced students who have decided on a thesis topic and wish to get feedback on their proposal and broader ideas for their continuing work.

We received a total of 29 submissions: 27 general research papers and 2 thesis proposal. We accepted 11 general research papers and 2 thesis proposal, resulting in an overall acceptance rate of 45%. The decision-making process was competitive, but we were delighted that all accepted submissions have great creativity and make contributions to their fields. The accepted submissions are diverse not only in topics but also in terms of student demographics. Following the tradition established by the previous SRWs, we also provided the pre-submission mentoring program for participants. The mentoring program offers students the opportunity to get feedback by a mentor prior to submitting their work for review. There are 5 papers participated in the pre-submission mentoring program.

We would like to thank the pre-submission mentors that spend their time and effort to help improve the work of the student authors. We would also like to thank all members of the program committee for their in-depth, detailed review and constructive suggestions for each submission. We are especially grateful to all the emergency reviewers who provide timely support and submit their high-quality feedback.

Preparing a workshop is never an easy business. Thanks to Hyeju Jang, Yugo Murawaki, and Derek Fai Wong, who act as the faculty advisors for this year's workshop. Special thanks to Vishakh Padmakumar and Gisela Vallejo, two of the co-chairs of ACL 2023 SRW, and Hanqi Yan, one of the co-chairs of the IJCNLP-AAACL 2022 SRW, who shared their invaluable experience in preparing the workshop. We are also grateful to Derry Wijaya for her constant and timely guidance. A huge shout out to Tom McCoy, who agreed to give the SRW keynote. We sincerely appreciate all of the organizers of the IJCNLP-AAACL conference for their effort. And of course, we would like to thank all the student authors and participants who submitted their work to the workshop. This workshop cannot be successful without any of them.

We hope you enjoy the IJCNLP-AAACL 2023 SRW!

Organizing Committee

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Rahmad Mahendra, RMIT University, Australia
Zilu Peter Tang, Boston University, USA

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