

AHaSIS-ST 2025

Proceedings
of the Shared Task on Sentiment Analysis on Arabic Dialects
in the Hospitality Domain: A Multi-Dialect Benchmark

associated with
The 15th International Conference on
Recent Advances in Natural Language Processing
RANLP'2025

Edited by Maram I. Alharbi, Salmane Chafik, Saad Ezzini, Ruslan Mitkov
Tharindu Ranasinghe and Hansi Hettiarachchi

12 September, 2025
Varna, Bulgaria

Shared Task on Sentiment Analysis on Arabic Dialects
in the Hospitality Domain: A Multi-Dialect Benchmark
Associated with the International Conference
Recent Advances in Natural Language Processing
RANLP'2025

PROCEEDINGS

Varna, Bulgaria
12 September 2025

Online ISBN 978-954-452-109-7

Designed by INCOMA Ltd.
Shoumen, BULGARIA

Preface

Welcome to the Sentiment Analysis on Arabic Dialects in the Hospitality Domain (AHaSIS) Shared Task, held on September 12, 2025, in conjunction with the 15th International Conference on Recent Advances in NLP (RANLP 2025) in Varna, Bulgaria.

With the rapid digital transformation of the hospitality industry across the Arab world, user-generated content such as hotel reviews has become a critical source of insight for service enhancement. However, the complexity of Arabic and its many dialects poses unique challenges for Natural Language Processing (NLP), particularly in sentiment analysis. The AHaSIS shared task addresses this need by focusing on sentiment detection across multiple Arabic dialects, specifically within the hospitality domain.

This shared task introduces a novel, sentiment-balanced dataset consisting of over 1000 hotel reviews, originally authored in Modern Standard Arabic (MSA) and professionally translated into two major dialects: Saudi Arabic and Moroccan Darija. The translations were validated by native speakers to ensure both linguistic and sentiment fidelity, making this dataset a valuable resource for developing and benchmarking dialect-aware sentiment analysis systems.

The AHaSIS task attracted widespread interest from the NLP community, with over 40 teams registering to participate. Of these, 12 teams successfully submitted systems during the evaluation phase. The top-performing system achieved an F1 score of 0.81, demonstrating both the promise and the persistent challenges of robust sentiment analysis in Arabic dialects.

We believe the outcomes of the AHaSIS shared task contribute significantly to the advancement of Arabic NLP, especially for underrepresented dialectal varieties in practical, real-world domains such as hospitality. The shared task encourages further research into multi-dialect processing and highlights the importance of dialect-specific resources for effective sentiment analysis.

We would like to express our sincere gratitude to all participating teams, reviewers, and the organizing committee for their contributions and dedication. We hope that these proceedings will support and inspire future work on sentiment analysis and dialectal Arabic NLP.

Maram Alharbi, Shared Task Chair, on behalf of the AHaSIS organizing team.

Organizing Committee

Maram Alharbi, Lancaster University, UK

Salmane Chafik, Mohammed VI Polytechnic University, Morocco

Saad Ezzini, King Fahd University of Petroleum and Minerals, Saudi Arabia

Ruslan Mitkov, Lancaster University, UK

Tharindu Ranasinghe, Lancaster University, UK

Hansi Hettiarachchi, Lancaster University, UK

Table of Contents

<i>AHaSIS: Shared Task on Sentiment Analysis for Arabic Dialects</i> Maram I. Alharbi, Salmane Chafik, Saad Ezzini, Ruslan Mitkov, Tharindu Ranasinghe and Hansi Hettiarachchi.....	1
<i>iWAN-NLP at AHaSIS 2025: A Stacked Ensemble of Arabic Transformers for Sentiment Analysis on Arabic Dialects in the Hospitality Domain</i> Hend Al-Khalifa.....	7
<i>Fine-tuning AraBERT model for arabic sentiment detection</i> Mustapha Jaballah, Dhaou Ghoul and Ammar Mars.....	14
<i>Enhancing Arabic Dialectal Sentiment Analysis through Advanced Data Augmentation Techniques</i> Md. Rafiul Biswas and Wajdi Zaghouni.....	24
<i>Ahasis Shared Task: Hybrid Lexicon-Augmented AraBERT Model for Sentiment Detection in Arabic Dialects</i> Shimaa Amer Ibrahim, Mabrouka Bessghaier and Wajdi Zaghouni.....	29
<i>Lab17 @ Ahasis Shared Task 2025: Fine-Tuning and Prompting techniques for Sentiment Analysis of Saudi and Darija Dialects</i> Al Mukhtar Al Hadhrami, Firas Al Mahrouqi, Mohammed Al Shaaili and Hala Mulki.....	35
<i>Dialect-Aware Sentiment Analysis for Ahasis Challenge</i> Hasna Chouikhi and Manel Aloui.....	40
<i>MAPROC at AHaSIS Shared Task: Few-Shot and Sentence Transformer for Sentiment Analysis of Arabic Hotel Reviews</i> Randa Zarnoufi.....	46
<i>mucAI at Ahasis Shared Task: Sentiment Analysis with Adaptive Few Shot Prompting</i> Ahmed Mohamed Abdelaal Abdou.....	54
<i>A Hybrid Transformer-Based Model for Sentiment Analysis of Arabic Dialect Hotel Reviews</i> Rawand Alfugaha and Mohammad AL-Smadi.....	62
<i>Arabic-Centric Large Language Models for Dialectal Arabic Sentiment Analysis Task</i> Salwa Saad Alahmari, Eric Atwell, Hadeel Saadany and Mohammad Alsalka.....	69
<i>A Gemini-Based Model for Arabic Sentiment Analysis of Multi-Dialect Hotel Reviews: Ahasis Shared Task Submission</i> Mohammed A. H. Lubbad.....	76
<i>Sentiment Analysis on Arabic Dialects: A Multi-Dialect Benchmark</i> Abdusalam F. Ahmad Nwesri, Nabila Almabrouk S. Shinbir and Amani Bahlul Sharif.....	86

Shared Task Program

Friday, September 12, 2025

9:00–9:05 *Welcome and Opening Remarks*

9:05–9:15 *AHaSIS: Shared Task on Sentiment Analysis for Arabic Dialects*
Maram I. Alharbi, Salmane Chafik, Saad Ezzini, Ruslan Mitkov, Tharindu Ranas-
inghe and Hansi Hettiarachchi

Session 1

9:15–9:30 *iWAN-NLP at AHaSIS 2025: A Stacked Ensemble of Arabic Transformers for Sen-
timent Analysis on Arabic Dialects in the Hospitality Domain*
Hend Al-Khalifa

9:30–9:45 *Fine-tuning AraBert model for arabic sentiment detection*
Mustapha Jaballah, Dhaou Ghoul and Ammar Mars

9:45–10:00 *Enhancing Arabic Dialectal Sentiment Analysis through Advanced Data Augmen-
tation Techniques*
Md. Rafiul Biswas and Wajdi Zaghoulani

10:00–10:15 *Ahasis Shared Task: Hybrid Lexicon-Augmented AraBERT Model for Sentiment
Detection in Arabic Dialects*
Shimaa Amer Ibrahim, Mabrouka Bessghaier and Wajdi Zaghoulani

10:15–10:30 *Lab17 @ Ahasis Shared Task 2025: Fine-Tuning and Prompting techniques for
Sentiment Analysis of Saudi and Darija Dialects*
Al Mukhtar Al Hadhrami, Firas Al Mahrouqi, Mohammed Al Shaaili and Hala
Mulki

10:30–10:45 *Dialect-Aware Sentiment Analysis for Ahasis Challenge*
Hasna Chouikhi and Manel Aloui

10:45–11:00 *Coffee Break*

Friday, September 12, 2025 (continued)

Session 2

- 11:00–11:15 *MAPROC at AHaSIS Shared Task: Few-Shot and Sentence Transformer for Sentiment Analysis of Arabic Hotel Reviews*
Randa Zarnoufi
- 11:15–11:30 *mucAI at Ahasis Shared Task: Sentiment Analysis with Adaptive Few Shot Prompting*
Ahmed Mohamed Abdelaal Abdou
- 11:30–11:45 *A Hybrid Transformer-Based Model for Sentiment Analysis of Arabic Dialect Hotel Reviews*
Rawand Alfugaha and Mohammad AL-Smadi
- 11:45–12:00 *Arabic-Centric Large Language Models for Dialectal Arabic Sentiment Analysis Task*
Salwa Saad Alahmari, Eric Atwell, Hadeel Saadany and Mohammad Alsalka
- 12:00–12:15 *A Gemini-Based Model for Arabic Sentiment Analysis of Multi-Dialect Hotel Reviews: Ahasis Shared Task Submission*
Mohammed A. H. Lubbad
- 12:15–12:30 *Sentiment Analysis on Arabic Dialects: A Multi-Dialect Benchmark*
Abdusalam F. Ahmad Nwesri, Nabila Almabrouk S. Shinbir and Amani Bahlul Sharif
- 12:30–13:00** *Closing Remarks, and Wrap-Up by Ms Maram Alharbi*