MMLow 2022

First Workshop on Multimodal Machine Learning in Low-resource Languages

Proceedings of the Workshop

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Introduction

In recent years, the exploitation of the potential of big data has resulted in significant advancements in a variety of Computer Vision and Natural Language Processing applications. However, the majority of tasks addressed thus far have been primarily visual in nature due to the unbalanced availability of labelled samples across modalities (e.g., there are numerous large labelled datasets for images but few for audio or IMU-based classification), resulting in a large performance gap when algorithms are trained separately. With its origins in audio-visual speech recognition and, more recently, in language and vision projects such as image and video captioning, multimodal machine learning is a thriving multidisciplinary research field that addresses several of artificial intelligence's (AI) original goals by integrating and modelling multiple communicative modalities, including linguistic, acoustic, and visual messages. Due to the variability of the data and the frequently observed dependency between modalities, this study subject presents some particular problems for machine learning researchers. Because the majority of this hateful content is in regional languages, they easily slip past online surveillance algorithms that are designed to target articles written in resource-rich languages like English. As a result, low-resource regional languages in Asia, Africa, Europe, and South America face a shortage of tools, benchmark datasets, and machine learning approaches.

This workshop aims to bring together members of the machine learning and multimodal data fusion fields in regional languages. We anticipate contributions that hate speech and emotional analysis in multimodality include video, audio, text, drawings, and synthetic material in regional language. This workshop's objective is to advance scientific study in the broad field of multimodal interaction, techniques, and systems, emphasising important trends and difficulties in regional languages, with a goal of developing a roadmap for future research and commercial success.

We invite submissions on topics that include, but are not limited to, the following: (a) Multimodal Sentiment Analysis in regional languages (b) Hate content video detection in regional languages (c) Trolling and Offensive post detection in Memes (d) Multimodal data fusion and data representation for hate speech detection in regional language (e) Multimodal hate speech benchmark datasets and evaluations in regional languages (f) Multimodal fake news in regional languages (g) Data collection and annotation methodologies for safer social media in low-resourced languages (h) Content moderation strategies in regional languages (i) Cybersecurity and social media in regional languages

We received 16 papers after a careful review process; two papers were selected for the proceedings.

Organizing Committee

Workshop Organizers

Bharathi Raja Chakravarthi, University of Galway, Ireland
Abirami Murugappan, Anna University, Chennai, India
Dhivya Chinnappa, Thomson Reuters, USA
Adeep Hande, Indiana University Bloomington, IN, USA
Prasanna Kumar Kumaresan, Indian Institute of Information Technology and Management- Kerala, India
Rahul Ponnusamy, Techvantage Analytics, India

Invited Speakers

Desmond Elliot, University of Copenhagen, Denmark
Shyamala Doraisamy, Universiti Putra Malaysia, Malaysia

Program Committee

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Muzhaffar Hazman, University of Galway, Ireland
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Antonette Shibani Xavier, University of Technology Sydney, Australia

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