

NTeALan Research and Development

Annual Conference on Language Technologies and NLP for Africa's
Poorly Endowed Languages

NTeALan Group / Douala (Cameroun)

12 février 2021

1 Summary

Theme	Advances and Challenges of NLP for African Languages : How far have we come ?
Date	February 19, 2021
Timetable	from 9am to 2pm GMT
Guests	<ul style="list-style-type: none">— Researchers specialised in NLP for African languages— Teachers of African languages— Entrepreneurs
Place	NTeALan Centre located at Parcours Vita (makepe Douala) and online at [https://webinar.nteabot.net/b/elv-tq4-oor-vrj], Facebook and Instagram pages

2 Presentation of NTeALan

Created in 2017 in Douala, Cameroon by Elvis Mboning and Jean-Marc Bassahak, NTeALan (New Technologies for Africans Languages) association works for the digital emergence of African languages by building communities of voluntary contributors

around African languages and cultures on the one hand, and natural language processing and artificial intelligence technologies on the other. NTeALan is essentially made up of volunteers passionate about African languages and eager to contribute to their development. However, NTeALan works in partnership with government ministries (in Cameroon), research laboratories, companies and also entrepreneurs, representing different sectors.

3 Conference description

As part of the activities of its general assembly marking the end of the year 2020 and the beginning of 2021, the association New Technologies for African Languages organizes, for the second time, a scientific workshop around the issues of NLP with regards to poorly endowed languages of Africa. This edition will take place on February 19, 2021 simultaneously online on NTeALan's webinar platform ¹ and at the association's headquarters (NTeALan multimedia center), located in Douala-Makepe, Tradex Parcours vita (opposite "Majestic Pressing"). This conference will bring together NTeALan's large community of members living in Cameroon and abroad, invited researchers, partners and other members of the scientific community.

This workshop aims at bringing together professionals, researchers and experts in African languages and Natural Language Processing (NLP), whose research work focuses on machine learning techniques and electronic lexicography applied to NLP and language pedagogy/didactics. We will also discuss the main challenges that arise in this context for the constitution of corpora in African languages. We will define possible directions for future progress.

In summary, this workshop is an opportunity for the participants and the audience to :

- review outstanding work on the constitution of datasets useful for the automatic processing of African languages.
- present the latest advances in NLP applied to African languages.
- present the platforms, datasets and softwares currently available on the market for processing African languages.
- evaluate and challenge the NLP approaches, methods and techniques currently used to process African languages.
- boost digital industries favourable to the digitisation of African languages.

1. <https://webinar.nteabot.net>

To build their presentations for the workshop, speakers will be able to draw inspiration from the following themes (non-exhaustive list) :

- Electronic Lexicography
- Codification and Xmlisation of dictionaries
- Knowledge Representation
- Methods for building up lexical resources
- Tokenization, Lemmatization, POS
- Application of lexicographical data for NLP tools
- Machine translation for African languages
- Speech recognition and synthesis in African languages
- Semantic classification of documents
- Speech synthesis / Audio recognition
- Named-entities Recognition in African languages
- Question-answer system, Chatbot, NLU
- Text extraction from images, PDFs, etc.

4 Participants

The workshop will be held on **Friday, February 19, 2021** from **9am to 14pm GMT** online on the association's webinar site² and will be broadcast live at the NTeALan Centre and on NTeALan's Facebook, Instagram pages³. The guests are presented in the table below (non-exhaustive list).

5 Scientific committee :

- Prof Jules Assoumou
- Prof Ndibnu Messina
- Dr Ornella Wandji
- Mr. Elvis MBONING

6 Contact :

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2. <https://webinar.nteabot.net/b/elv-tq4-oor-vrj>
3. <https://www.facebook.com/NTeALan.org>

Speakers	Institutions	Themes	Sessions
Opening session			9h00 - 9h15 UTC+1
Prof. Assoumou Jules	Head of Department of African Language and Linguistics at the University of Douala	The linguistic question in the emergence of Africa	9h15 - 9h45 UTC+1
Pr Sonja Bosch ⁽²⁾ & Dr Gertrud Faaß ⁽¹⁾	⁽²⁾ Professor in the Department of African Languages at the University of South Africa (UNISA)	A Learners' Dictionary for Zulu	9h45 - 10h15 UTC+1 <small>(10h45 - 11h15 UTC+2, heure de Johannesburg)</small>
MCF Ndibnu Messina	Researcher at ENS and University of Yaoundé	Le lexique des langues minoritaires africaines et la construction des corpus en TAL	10h15 - 10h45 UTC+1
Dr Gertrud Faaß ⁽¹⁾ & Pr Sonja Bosch ⁽²⁾	⁽¹⁾ Lecturer / Researcher at the University of Hildesheim	Working towards a Zulu verb valence lexicon	10h45 - 11h15 UTC+1 <small>(10h45 - 11h15 UTC+1, heure de Berlin)</small>
Pause			11h15 - 11h30 UTC+1
M. Elvis Mboning	President of the NTeALan association	Les dictionnaires collaboratifs de NTeALan : quels avantages pour le traitement automatique des langues africaines ?	11h30 - 12h00 UTC+1
Mme Zouleiha Alhadji & Dr Paul Dayang ⁽³⁾	PhD student at the University of Ngaoundere	A suffix-stripping Algorithm And transducers for the peul language	12h00 - 12h30 UTC+1
Dr Paul Dayang ⁽³⁾ & M. Jules Paulin Bayang Souloukna ⁽⁴⁾	⁽³⁾ Senior lecturer at the University of Ngaoundere & ⁽⁴⁾ PhD student at the University of Ngaoundere	Computing perplexity values for under-resourced languages using ngram and deep learning approaches	12h30 - 13h00 UTC+1
Dr. Rodrigue Tchamna	Research Associate at City College of New York and member of Resulam Association	Présentation des Travaux de Resulam, Ré-surrection des langues maternelles ancestrales, pour la revitalisation des langues africaines	13h00 - 13h30 UTC+1 <small>(7h00 - 7h30 UTC-5, heure de New York)</small>
Work group	Thematic discussions / exchanges		13h30 - 14h00 UTC+1
Conclusion			14h00 UTC+1