Speech and Text to Sign Language

Darshan Soni, **Dipesh Makwane**, **Goutam Barwha, Harsh Yadav**, **Divyam Dubey**

Undergraduate Students, Department of Computer Science and Engineering

Acropolis Institute of Technology and Research, Indore, India

Abstract: *Sign languages are known as a natural means for verbal communication of the deaf and hard of hearing people. There is no universal sign language, and almost each country has its ownnationalsignlanguageandfingerspellingalphabet.Signlanguagesusevisual-kineticcluesforhuman-to-human communication combining hand gestures with lips articulation and facial mimics. They also possess a special grammar that is quite different from that of speech-based spoken languages. Sign languages are spoken (silently) by a hundred million deaf people all over the world and the most popular are American (ASL), Chinese, Brazilian, Russian, and British Sign Languages; there are almost 140 such languages according to the Ethnologies. They do not have a natural written form, and there is a huge lack of electronic resources for them, in particular, vocabularies, audio-visual databases, automatic recognition and synthesis systems, etc. Thus, sign languages may be considered as non-written under resourced spoken languages.*

Keywords: Sign language; communication of deaf people; unwritten languages; multi-modal synthesis system; under-resourced languages

REFERENCES

[1]. O. Aran, I. Ari, L. Akarun, B. Sankur, A. Benoit, A. Caplier, P. Campr,A.H. Carrillo, and F.-X. Fanard, "SignTutor: An interactive system for sign language tutoring," IEEE Multimedia, vol.16, pp. 81–93, 2009.

[2]. Ankita Harkude, Sarika Namade, Shefali Patil, Anita Morey "Audio to Sign Language Translation for Deaf People" ISSN: 2277-3754, International Journal of Engineering and Innovative Technology (IJEIT) Volume9, Issue 10, April 2020.

[3]. Farahanaaz Shaikh, Shreya Darunde, Nikita Wahie, Swapnil Mali "Sign Language Translation System for Railway Station Announcements", Institute of Electrical and Electronics Engineers (IEEE), IEEE Bombay Section Signature Conference (IBSSC), 2019

[4]. Amit Kumar Shinde and Ramesh Khagalkar "sign language to text and vice versa recognition using computer vision in Marathi" International journal of computer Application (0975-8887) National conference on advanced o computing (NCAC 2015).08:45 PM

[5]. Harrington, T. (July, 2004). Statistics: Deaf Population of the US. http://library.gallaudet.edu/dr/faq-statistics-deaf-us.html