

The Sudanese Dialect is one of various variations of Arabic language, it's considered a low-resourced dialect especially on ASR and NLP tasks, for it suffers from lack of annotated resources. We explored the use of self supervised transfer learning to develop an ASR model, by fine-tuning WAV2VEC2 to recognize Sudanese dialect, in addition we built a small speech dataset to overcome the lack of the annotated data, the dataset consists of 4 hours and has 3544 records. We used low budget computational resources ( Google Colab free quota) to fine-tune the WAV2VEC2 model on train split of the [Sudanese Dialect speech dataset](#) and [Arabic speech corpus](#) for training, validation was done on a test split of just the Sudanese clips, and we reached 74.37 % WER. Finally, We are investigating the use of OpenAI Whisper model to produce better results, and also started [ook.sd](http://ook.sd) website to annotate [ADI17](#) Sudanese dialect records, to build upon our effort to enrich Sudanese dialect and enable future research.