University of Tabriz Persian Sign Language database (UoT-PSL)

The dataset was collected in the Society of Deaf People (SDP), Urmia, Iran. Twelve volunteers including six male and six female singers were participated in this dataset. The signers included both deaf and hearing individuals. Twenty dynamic signs of PSL were chosen to be included in the dataset. The signs were selected from the single-handed signs appearing in everyday conversations with the consultation of the experts in SDP. A list of the signs available in this dataset is presented in Table 1. Each individual performed a sign 5 times producing 60 samples for each sign A Sony digital camera (model DSC-HX9V) was used to obtain a total number of 1200 videos from 20 signs. There were no particular restrictions on the light of the environment. The collected videos were in AVI format and the frame rate was set to 25 frames per second and the spatial resolution was 1800×2000 pixels. The audio contents of the videos were eliminated to avoid unnecessary complexities.

Some restrictions were imposed on the videos to ease the hand tracking process. A blue curtain was considered as background in all videos and the signers were asked to wear a simple white glove. Colored marks were considered on the fingertips of the glove for possible future studies. All the signs were chosen from single-handed Persian signs to avoid possible occlusions of the hands.

Table 1. List of the signs of the dataset.

Sign Code	Sign	Sign Code	Sign
1	Sad ,ناراحت	11	Eat,خوردن
2	Wish,آرزو	12	Sun,خورشید
3	Dear,عزیز	13	Mother,مادر
4	Sorry,ببخشید	14	People,مردم
5	How?,چطور؟	15	Go,رفتن
6	Student,دانشجو	16	Day,روز
7	Today,امروز	17	Hear,شنیدن
8	Forget,فراموش کردن	18	Brave,شجاع
9	Please,لطفا	19	Natural,طبیعی
10	Danger,خطر	20	Can,توانستن

Figure 1 presents a sample of the captured video frames.

Figure 1. Samples of the captured video frames for sign 'wish'.

To use and download University of Tabriz Persian Sign Language database (UoT-PSL) please contact to following email: seyedarabi@tabrizu.ac.ir