



To whom it may concern



**Hals-Nasen-Ohren-Klinik
Kopf- und Halschirurgie**
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Mr Shrishti Saha Shetu, MSc, born on 06.11.1994 was working as a part-time student assistant from 01.04.2019 to 30.06.2020 at the Audiological Department at the ENT clinic, University Hospital, Erlangen.

Mr.Shetu worked on the topic of neuro-steered hearing aids and was assigned the following tasks:

- Familiarize with electroencephalography (EEG)
- Understand characteristics of EEG signal generated from brain during auditory evoked potential and auditory attention decoding (AAD) paradigms
- Familiarize with the state-of-the-art AAD algorithms based on least-squares estimation principle
- Design a high level system architecture improve AAD algorithms using classical machine learning and deep neural networks
- Implement AAD algorithm based on convolutional neural networks (CNN) using Keras
 - Extend CNN based AAD to capture the temporal dynamics of speech and EEG using LSTM networks
 - Generate testcases to evaluate the performance of aforementioned DNN architectures

Mr.Shetu impressed us with his expertise in the field of deep neural networks that was valuable to the entire team. He was a dedicated internee who has always accomplished his assignments with utmost commitment. Mr.Shetu worked prudently and always made a habit of going the extra mile on his tasks. His contribution will be extremely valuable to our future work.

We thank Mr.Shetu for the successful collaboration and wish him all the best and success for his personal and professional life.

Erlangen, 27th July, 2020

A handwritten signature in blue ink, appearing to read 'U. Hoppe'.

Prof.Dr.Dr. Ulrich Hoppe
(Department head)

A handwritten signature in blue ink, appearing to read 'I. Kuruvila'.

Ivine Kuruvila , MSc
(Supervisor)