

Dr. Partha Pratim Roy Assistant Professor Phone: +91-1332 284816 (O) E-mail: proy.fcs@iitr.ac.in

Dated: December 4, 2018

## To Whom It May Concern

This certificate is presented to Aishik Konwer, B.Tech (Electronics and Communication Engineering) from Institute of Engineering & Management (IEM, Kolkata), for his successful work as a summer intern in Computer Vision during the period July to September in 2017. Aishik was under my supervision at IIT Roorkee Computer Science lab for these two months. Initially, he was assigned to a project entitled 'Writer identification in music score images'. Later he pursued extensive research on the topic 'Script identification in natural scene image and video frames using an attention based Convolutional-LSTM network'. This work got published in reputed Pattern Recognition Journal, Elsevier (I.F.-3.962) in 2018.

Aishik was found sincere and hardworking during this tenure, and the outcome of his work was more than satisfactory. I wish him all the best for his future endeavours.

Porthe Pratim Roy.

Dr. Partha Pratim Roy Assistant Professor Dept. of Computer Science & Engineering Indian Institute of Technology Roorkee Roorkee - 247 667. Uttarakhand, India. Phone: +91-1332-284816