

Fraunhofer Institute for Integrated Circuits IIS

Management of the Institute Prof. Dr. Albert Heuberger (executive) Dr. Bernhard Grill

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## To Whom it May Concern

Mr. Raza Ul Azam B.Sc., born on March 1, 1995, was assigned as a graduated student in part time to the »Semantic Audio Processing« department of Fraunhofer Institute for Integrated Circuits IIS from April 1, 2018 to July 31, 2018.

The Fraunhofer Institute for Integrated Circuits IIS is one of the world's leading application-oriented research institutions for microelectronic and IT system solutions and services. It is the largest of all Fraunhofer Institutes.

Mr. Azam supported the research group »Mobile Audio Rendering« with the following tasks:

- Evaluation and improvement of audio rendering algorithms in Matlab and C/C++
- Programming tasks (C/C++) on an existing audio rendering library
- Creation of signals for testing purposes

Mr. Azam performed his tasks in an exemplary manner without exception. We were therefore always absolutely satisfied with his performance. Due to his constantly friendly and polite manner he was highly valued by all.

We thank Mr. Azam for his always good and successful collaboration and wish him all the best and every success for his personal and professional life.

Erlangen, July 31, 2018

Dipl.-Ing. Felix Fleischmann Head of the Group

Mobil Audio Rendering