

## GENÈVE, SUISSE GENEVA, SWITZERLAND

## ORGANISATION EUROPÉENNE POUR LA RECHERCHE NUCLÉAIRE EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

Laboratoire Européen pour la Physique des Particules European Laboratory for Particle Physics

Carlos Solans CERN, EP Department CH-1211 Geneva 23 Switzerland

Tel: +41 22 766 1379 Mobile: +41 75 411 5518

e-mail: <u>carlos.solans@cern.ch</u>

To whom it may concern:

This is a recommendation letter in favour of Mr. Amitabh YADAV to support his application for the Ph.D. program at your university. I've known Amitabh for the last two years, when he participated in the summer student program at CERN in 2017 under my supervision. During his internship, Amitabh designed a prototype for the firmware for the read-out interface cards of the FE-I4 front-end ASICs in

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the framework of the ITK Pixel Stave demonstrator program for the Phase-II upgrade of ATLAS.

Amitabh carried out his research in a very elegant way. He was naturally interested in all aspects of the job and self motivated to perform beyond expectations. He pioneered the firmware development work that we carry out in the EP-ADE-TK group at CERN for the ATLAS upgrade. He gained experience with firmware development for Xilinx 7 series FPGAs in Vivado which led him to pursue a masters in quantum hardware development implemented in FPGAs.

Furthermore, Amitabh integrated himself very well into the daily activities of the team, and participated in other tasks like PCB design in Altium designer. As a student, he expressed his curiosity to delve deeper into the theoretical aspects and investigate the intricate details of his project. Amitabh's effort and dedication were very well appreciated.

Over the last two years, I've seen Amitabh grow an increasing interest in Electronics and Computer Engineering and carry out his Masters in the Quantum Computer Engineering Group in QuTech, Delft which he recently was awarded with recommendations from the committee. Soon after, he joined the Physics Division at Lawrence Berkeley National Laboratory in California, to work on the applications of Quantum Computing in High Energy Physics. This further boosted Amitabh's interest in complimenting his knowledge with research skill by pursuing a PhD, and given my experience with him, I fully support. I am sure your establishment will profit from this young and brilliant scientist.

Sincerely.

Carlos SOLANS SANCHEZ
CERN Staff Scientist