

Ref. No. SEQ/Intern/03/2019

## CERTIFICATE

This is to certify that **Mr Niel Parekh**, SSN College of Engineering, Chennai has done his internship program from 23<sup>rd</sup> Oct 2019 to 09<sup>th</sup> November 2019 under the supervision of Dr. H. Muthurajan at our R&D Lab in IIT Madras Research Park, Chennai.

During this time, he worked on software development on Arduino boards, sensors (ultrasonic, vibration, light intensity, etc) and basic display elements (2x16 LCD, 8 segment display and a 16x16 LCD). He also was exposed to other boards like nodeMCU (Wi-Fi) and HM-10 (Bluetooth). He also worked with high precision stepper motors and controlling them with Arduino code. He was also exposed to web page design and controlling Arduino boards using a HTML page. He then went on to learn to control the Arduino using an app made using visual studios. Lastly, he connected the Arduino to the thingspeak cloud using the nodeMCU and pushed data into the cloud and extracted data from it.

He displayed professional traits during the internship period and completed all the 24 assignments first time right. We found him extremely inquisitive and hard-working. He was very much interested to get into the depth of the subject to understand it better displaying self-motivated attitude to learn new things.

Mr Niel Parekh is contributing many fruitful ideas right from the nascent stage of the work, which not only reflects his interest in software programming and research but also in-depth understanding of the subject. He is much focused, able to work independently and takes potential efforts towards achieving his goals.

He is sincere in work with innovative ideas, who selflessly help all other in all activities. He is very spontaneous in coordinating with his colleagues and many times he has taken lead for new experiments. As a person, his communication skills are excellent and he is extremely humble with very pleasing behavior. He has successfully completed the requirements of his internship project. His performance in the internship project was excellent.

His association thought for a short time was fruitful and we wish him all the best in his future endeavours.

Dr. H. Muthurajan



Date: 9th November 2019