ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

INVITATION TO THE PRESENTATION ABOUT THE WORK-PLACEMENT

Optimization of Burn-In Models

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Friday, 29 May 2020 | 13:00–13:30

https://classroom.aau.at/b/jpi-rjr-3wy

ABSTRACT

The internship was completed in collaboration with Infineon Technologies Austria AG, a semiconductor manufacturer in Villach. Infineon Technologies Austria AG stands for an effective combination of innovative research and high-quality production of semiconductors. The manufacturing of semiconductors follows strict rules and regulations, since these are used in safetycritical applications, such as driver assistance and airbag systems in cars or trucks. So, it is of particular importance to ensure high reliability and safety of semiconductors. New technologies and products from Infineon Technologies Austria AG are already undergoing several quality tests during the entire development and production phase. These tests ensure that the products survive a long period of time under various conditions after delivery.

In the automotive division new technologies and devices are running through the BurnIn before delivery, which is an important measure of quality and functionality for semiconductors before delivery, based on reliability theory. With the Burn-In early failures are screened out, so the main goal of Burn-In is to simulate the first operating hours of a device. After Burn-In, it must be ensured

that the components function properly and do not fail in the field after a short period of operation.

The tasks of the internship were to participate in the Burn-In process, to make various calculations based on different models, and to optimize an already implemented package in R called FlexSampleBI.

We hope to see you there!

