



Certificate of Presentation

We hereby certify that the work
Transient Response Analysis for Third-Order Programmable PLL

by

Raphael Ronald Noal Souza, Agord de Matos Pinto Jr., Leandro T. Manera, Cassia Maria Chagas and Saulo Finco

was presented at the XIV Workshop on Semiconductors and Micro & Nano Technology, in Campinas-SP, held on April 11-12, 2019.

A handwritten signature in blue ink, reading "Jacobus Swart".

Dr. Jacobus Swart
SEMINATEC 2019 General Chair