Webinar Invitation

Smart Sensor Emulation for FPGA based Systems

Thursday, 11. 7. 2024 [9 a.m. to 10:30 a.m.] – online

With the TEC BYTES webinars, TRS-STAR offers you bite-sized technical tidbits. TRS-STAR customers are cordially invited to this free training opportunity. In addition, you have the **opportunity to receive a free T*Square T20-100/144 Education Board**: we will determine the three winners of this board among the first 10 registrations.

The emulation of sensors is demonstrated using the application example of an FPGA-based RISC-V system. Extreme conditions (corner cases) that might be even destructive when testing with real hardware, can be emulated and the proper system behavior can be verified.

Using SmartWave from semify, it is possible to easily emulate the behavior of sensors that have an I2C, SPI or UART interface. However, the hardware emulation is not limited to sensors, but they are used as application examples in this webinar. SmartWave is connected to a host PC via USB and can be accessed both via a web interface and a Python API. Users can enjoy all the benefits of this powerful scripting language, which enables, for example, the graphical display of real or emulated sensor data.

The intelligence behind the sensors is implemented in the form of a Sapphire RISC-V core on an Efinix Trion T20. The T*Square T20-100/144 Education Board from TRS-STAR and IMG Electronic & Power Systems is used for this purpose. The T*Square Education Boards offer the ideal entry into the world of **Efinix FPGAs, offering an optimum of cost, availability, low power consumption and good performance**.

Webinar participants get access to source code [VHDL and C++] and scripts [Pyhton] of the examples shown. This means that the webinar content can be reproduced and adapted for your own applications. In addition, webinar participants can purchase the SmartWave Emulator and the T*Square Education Board at a **promotional price of 599 €**.

Register

Webinar Invitation

Smart Sensor Emulation for FPGA based Systems

Thursday, 11. 7. 2024 (9 a.m. to 10:30 a.m.) – online

Speaker:	Klaus Strohmayer (CEO & Founder semify)
	Andreas Schwarztrauber (CEO TRS-STAR)
Language:	English
Prerequisites:	Technical understanding, basic knowledge of Python desirable but not required.
	T*Square T20-100/144 Education Board and SmartWave for customers
	who want to reproduce the hands-on afterwards.
Seminar form:	Presentation, hands-on at your own time and pace
Contact:	Andreas Schwarztrauber, (e-Mail: asc@trs-star.com) , +49 172 721 8963

Agenda (Zeitzone: MEZ)

09:00 a.m. – 09:05 a.m.	Welcome and introduction (Andreas Schwarztrauber)
09:05 a.m. - 09:15 a.m.	Introduction T*Square Education Boards (Andreas Schwarztrauber)
09:15 a.m. - 09:30 a.m.	Introduction SmartWave (Klaus Strohmayer)
09:30 a.m. – 09:45 a.m.	Sensor emulation using Smart Wave (Klaus Strohmayer)
09:45 a.m. – 10:00 a.m.	Demo: Emulation of an I2C-based temperature sensor (Klaus Strohmayer)
10:00 a.m. – 10:15 a.m.	Demo: Emulation of an I2C-based IMU sensor (Klaus Strohmayer)
10:14 a.m. – 10:30 a.m.	Q & A

Register