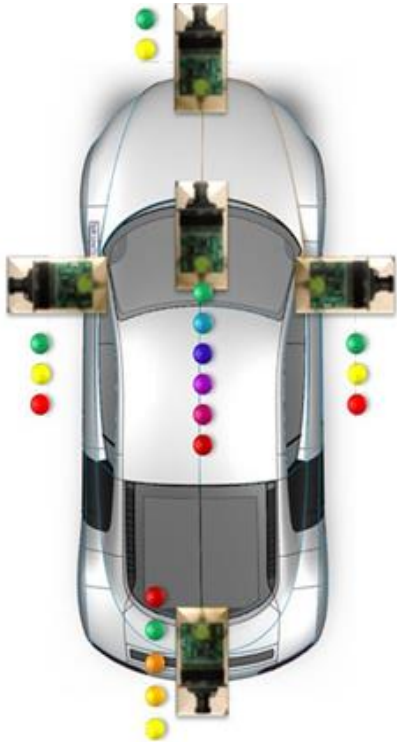
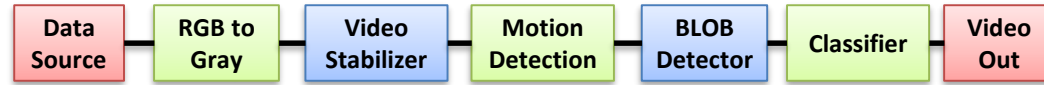


Vision-based ADAS Systems

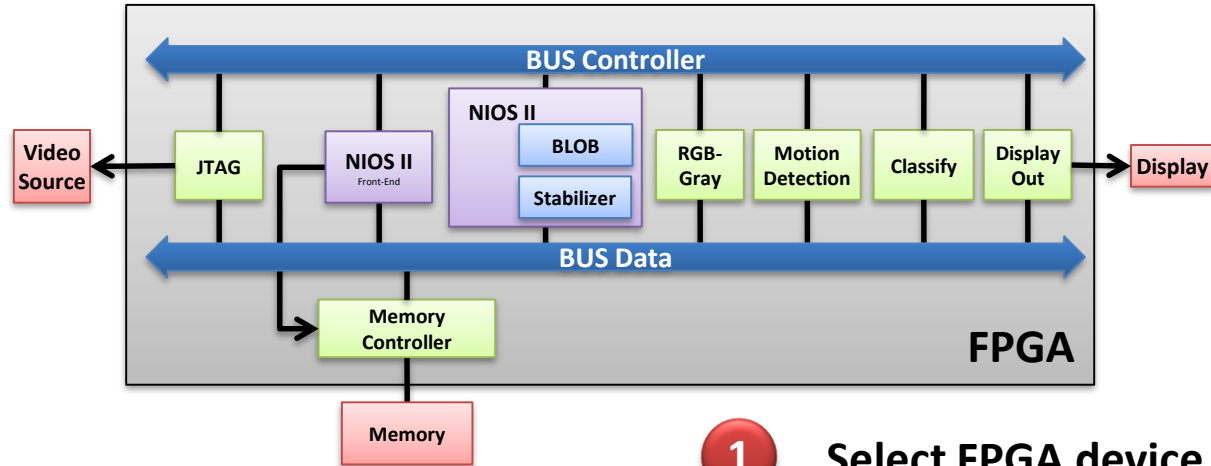


- Surround View
- Rear View Camera
- Rear Cross Traffic
- Blind Spot Detection
- Lane Departure Warning
- Intelligent Headlamp Control
- Traffic Sign Recognition
- Forward Collision Warning
- Intelligent Speed Control
- Pedestrian Detection

User Conceptual Designer



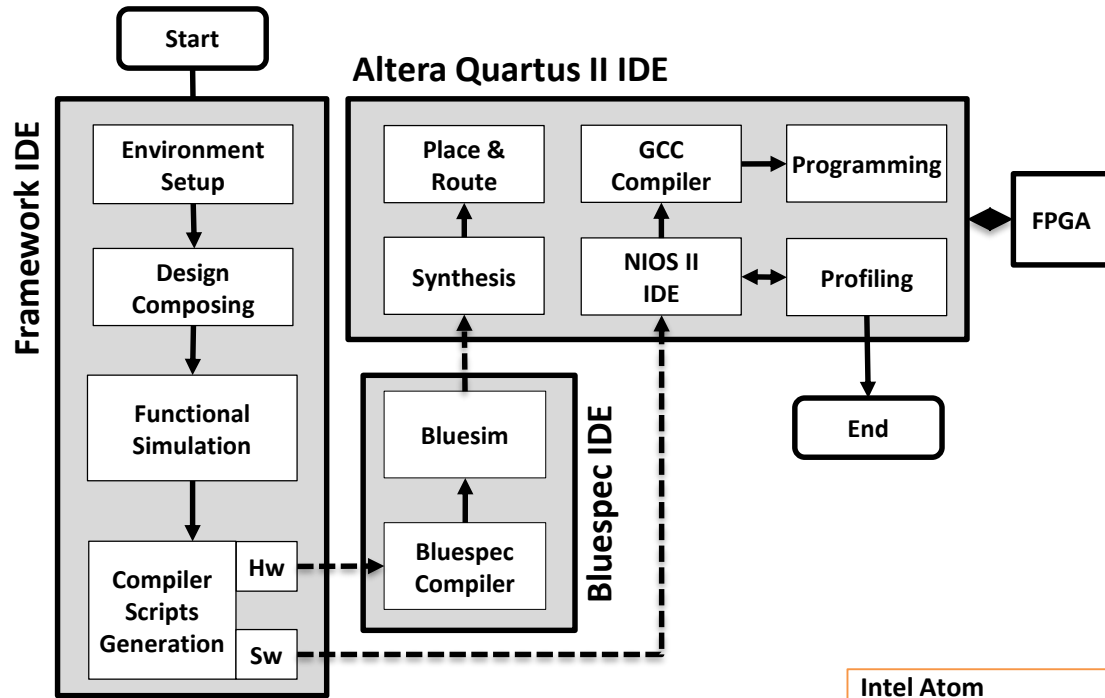
Automatic Hardware Conversion



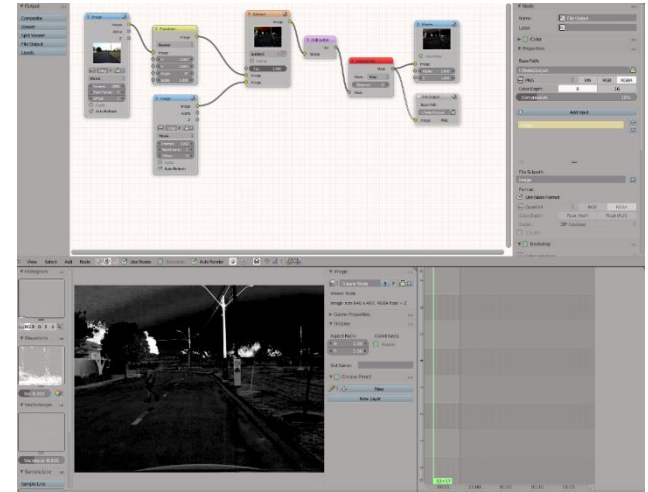
- 1 Select FPGA device
- 2 Select de template
- 3 Design space exploration
- 4 Simulate
- 5 Generate Quartus design

Leandro Martinez
Eduardo Marques
FPL 2016

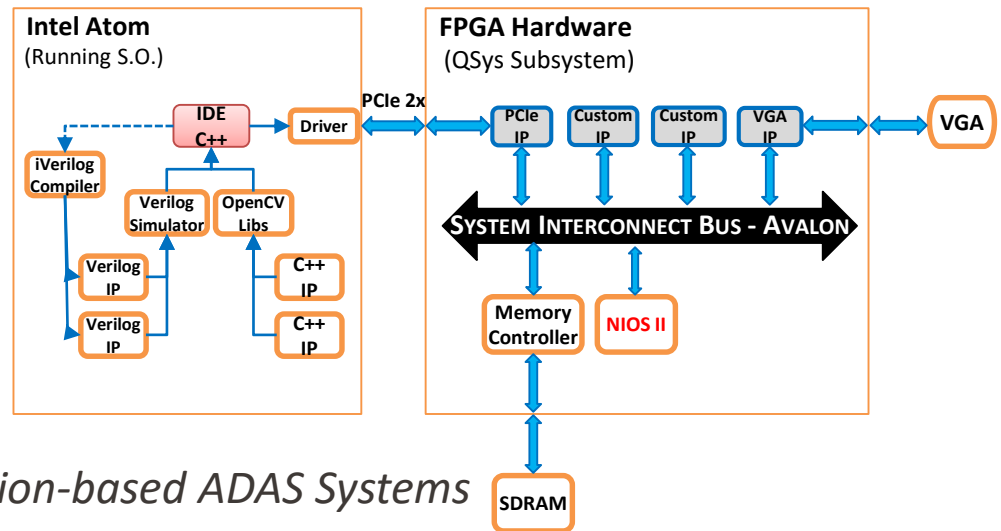
A hardware/software codesign framework for vision-based ADAS



Full flow using the framework



Main Screen Design Tool



Vision-based ADAS Systems

Thank you!

Imartinez@usp.br