



Title of The Thesis

Master Thesis

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Dept. of Computer Science Chair of Software Technology for Embedded Systems Chemnitz University of Technology, Germany

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Acknowledgement

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1. Introduction

2. State of The Art

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5. Safety Competency

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8. Conclusion

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List of Abbreviations

GUID Globally Unique Identifier

IDE Integrated Development Environment

API Application Program Interface **IP** Internet Protocol **IPC** Inter Process Communication **ASIL** Automotive Safety Integrity Levels **ISO** International Organization For Standardization **BPF** Berkeley Packet Filter **KDE** K Desktop Environment **Bash** Bourne-again shell **KOID** Kernel Object ID **BIOS** Basic Input/Output System **LK** Little Kernel **BLOB** Binary Large Object MBR Master Boot Record **BMP** Bitmap **OS** Operating System **CISC** Complex Instruction Set Computing **QEMU** Quick Emulator **CPU** Central Processing Unit **RAM** Random Access Memory **RTE** Runtime Environment **DLL** Dynamic Link Library **SDK** Software Developement Kit **DMA** Direct Memory Access **SSH** Secure Shell **DOS** Disk Operating System **SSL** Secure Sockets Layer **DRAM** Dynamic Random Access Memory **TOML** Tom's Own Minimal Language eBPF Linux Enhanced BPF **VM** Virtual Machine **FIDL** Fuchsia Interface Description Lan-**UDP** User Datagram Protocol guage **URL** Uniform Resource Locator FTP File Transfer Protocol **VGA** Video Graphics Array **GPU** Graphics Processing Unit **VPI** Virtual Path Identifier **GUI** Graphical User Interface **vDSO** Virtual Dynamic Shared Object

WIP Work in Progress

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A. AAAA

B. BBBB

C. Performance Evaluation