

## Industry

- **AŽD Prague:**  
FPGAs in dependable applications – railway signaling and safety devices
- **ASICentrum:**  
ASIC design
- **2N TELECOMMUNICATIONS, CESNET:**  
firmware for embedded systems – telecommunication devices
- **IKT Advanced Technology:**  
FPGA-based high-speed wireless communication
- **various partners:**  
estimations of cryptanalytical strengths of industrial ciphers

## Education

- “Hardware is yet another platform for your algorithms”
- Hands-on experience with circuits, units, architectures: “FPGAs from cradle to grave”
- **Courses** in computer architecture, testing, simulation, digital design

# Digital Design & Dependability Research Group

<http://ddd.fit.cvut.cz/>

## Research

- Reliability and diagnostics of logic circuits
- SEU-resistant systems in FPGA
- Logic synthesis
- Cryptanalysis by massively parallel FPGA engines
- Arithmetic circuits for cryptography
- Formal verification

## Projects

- Petri Nets in Hardware Design & Dependability Models – *Hana Kubátová*
- Design of Fault-Tolerant and Testable Logic Circuits – *Hana Kubátová*
- Hardware for Cryptography and Cryptanalysis – *Martin Novotný*
- High-Speed Wireless Communication – *Pavel Kubalík*
- BOOM, FC-Min – Boolean Minimizers – *Petr Fišer*
- Logic Synthesis – *Jan Schmidt*
- Formal Verification – *Stefan Ratschan*

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