Attachment to resume of Toppan

A) Detailed design/testing experience

1) *Digital Hardware Components/Subsystems*

a) VHDL simulation + test bench of 1D, 2D digital filters or nonlinear statistical digital filters for high speed data throughput applications, including data communication with framing signals synchronizations logic
b) On-chip bus configuration Finite State Machines for glue-logic multi-component programmable System on Chip, simulation + test bench + test on embedded system product
c) Complex time-to-digital converter + seven segments display control, directly tested on FPGA evaluation board

2) *Development of practical automatic software tools for engineering applications*

Automatic software tools for code transformations (i.e. access control functions obfuscations)
Bus Bandwidth calculations with Excel for Video Processing/transmission systems

3) *Own Analytical Data processing applications implementations*

PhP + Filesystem based huge data processing of paper based questionnaires or multiple choice tests
SPICE Circuits Simulation at Educational level

4) *Teamwork development for complete embedded system prototypes or close to prototype*

Development/configuration of hardware, software, firmware, real-time input peripherals configurations, algorithms, satisfying customers in advance (Microcontroller+Multi chips+LVDS receiver deserializer or, other design, DSP+Microcontroller for CAN+CPLD+CMOS sensor in one box)

5) *Pioneering DSP algorithms for smart cameras*

Sensors data acquisition, multi chips connection-routing through programmable glue logic, high speed data-communication, Oscilloscope Lab tests, REAL-TIME data processing, essential testing, advanced DMA configuration/strategy, type of practical problem solving work which is closer to patent/intellectual property R&D rather than to product development (like for instance point 4)

6) *Software for SYSTEM DESIGN/TESTING*

C++/C Automatic tools for embedded electronic system testing (including CAN data communication), C function development having *low complexity* (*high hardware efficiency)*

B) *Scientific/research&development experience (with publication)*

a. PhD thesis (under future evaluation) describing software complexity by means of information theory
b. IT or IDE environments:
   Windows based software development
   Linux/Unix based software development
   Freescale or Motorola, Analog Devices, Texas Instruments, Xilinx, Lattice

C) *Areas of interest/experience in research&development:*

1)Safety electronics, Intellectual property relevant or critical performance hardware/software
2)Research areas experience:
   a)Security aspects of ICT, Embedded Electronics Systems
   b)Organizational well-being, human resources management through questionnaires on the field, with the use of a software for on-line and automatic elaboration on real time

D) **Would like to:**

Acquire new competencies in hardware engineering teams
Work in new technology fields like optical wireless communication
Work in fields like radar systems and/or sensors
More experiences with MathCAD
Belong to flat hierarchy based autonomous/spontaneous research&development organization with meritocracy, trust, true vision, tolerance