



István Bosznai

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Date of birth: 26/06/1982 **Nationality**: Hungarian

WORK EXPERIENCE

[01/2019 – Current] **Innovation Project Manager, HW and System Architect**

Robert Bosch Kft.

Country: Hungary

- Define project scope, objectives, and deliverables.
- Create detailed project plans, schedules, and milestones.
- Communicate with key stakeholders (executives, clients, team members) to align expectations.
- Facilitate regular updates, meetings, and reports.
- Drive innovation initiatives by identifying opportunities for new products or process improvements.
- Define project budgets and ensure financial feasibility.
- Apply agile and lean methodologies for rapid innovation.
- Design the overall system architecture, including hardware, software, and network components.
- Define technical requirements and system specifications.
- Collaborate with the design and engineering teams for prototyping and testing.
- Work closely with software architects and developers to ensure seamless integration between hardware and software components.
- Work with mechanical, electrical, and software engineers to ensure the system meets technical and performance requirements.

[01/2017 – 01/2019] **Hardware Lead Engineer**

Robert Bosch Kft.

Country: Hungary

- Guide the creation of hardware architecture, schematics, and specifications for electronic components.
- Choose appropriate hardware components based on performance, cost, and power requirements.
- Oversee the creation of hardware prototypes and testing iterations.
- Lead, mentor, and coordinate teams of electrical, mechanical, and firmware engineers.
- Work closely with software, industrial design, manufacturing, and testing teams to ensure hardware integration with the overall system.
- Establish development timelines, deliverables, and goals.
- Create detailed documentation, including design specifications, test plans, user manuals, and troubleshooting guides.
- Provide regular updates to stakeholders, including senior management and other project leads.
- Ensure the smooth transition from design to production by working closely with manufacturing engineers.
- Assist with hardware-related issues that arise in the field and work with customer support teams to address any challenges.

[01/2015 – 01/2017] **Hardware Team Leader**

Robert Bosch Kft.

Country: Hungary

- Define project scope, objectives, and timelines.
- Review and validate hardware design, schematics, and specifications.
- Manage and mentor hardware engineers and technicians.
- Evaluate team performance and provide feedback for continuous improvement.
- Work closely with other teams, such as software, mechanical, and product management.
- Collaborate with suppliers to source components and materials.
- Maintain detailed records of designs, testing results, and project progress.
- Ensure alignment between customer requirements and hardware specifications.

[05/2012 – 01/2015] **Senior Hardware Design Engineer**

lesswire AG (PRETTL Electronics Hungary)

City: Érd | **Country:** Hungary

- Managing the hardware activities in various automotive projects (e.g.: Media Router Device),
- Coordinating colleagues
- Creating the main parts of the schematic, creating a working schematic from all parts
- Writing the design document, creating specifications
- Selecting the suitable components
- Making electric simulations
- Routing boards (8-layered, high frequency PCB)
- Supporting the manufacturing of the PCB (prototype and series)
- Maintaining the component database
- Creating Design FMEA
- Making tests according to VW80000
- Cooperating with the software and test team
- Keeping in contact with foreign partners
- Organizing meetings

[04/2007 – 11/2007] **Design Engineer**

BUTE - Department of Control Engineering and Information Technology

City: Budapest | **Country:** Hungary

- Modifying and fine tuning an existing ECG device
- Data acquisition, storage and processing the measurement data

[02/2008 – 02/2011] **Technical Instructor**

BUTE - Department of Electronics Technology

City: Budapest | **Country:** Hungary

- Designing and developing embedded systems for Hungarian and EU projects (schematic, simulation, PCB layouting, creating the firmware, manufacturing, etc.)
- Developing medical devices, creating firmwares, programming GUIs
- Communicating and coordinating with other engineer teams

EDUCATION AND TRAINING

[02/2011 – 05/2012] **Ph.D in Electrical Engineering - not finished**

Budapest University of Technology and Economics, Doctoral School in Electrical Engineering

| **Level in EQF:** EQF level 8

[02/2006 – 09/2009] **Biomedical Engineer**

Budapest University of Technology and Economics / Semmelweis University (MSc.)

| **Level in EQF:** EQF level 7

[09/2001 – 06/2007]

Electrical Engineer

Budapest University of Technology and Economics, Faculty of Electrical Engineering (MSc.)

| **Level in EQF:** EQF level 7

- Electronics Technology as major
- Biomedical Engineering as minor

[09/1997 – 06/2001]

High School Diploma

Kossuth Lajos bilingual High School (High School)

| **Level in EQF:** EQF level 5

- Faculty of Advanced English

LANGUAGE SKILLS

Mother tongue(s): Hungarian

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

German

LISTENING A1 READING A1 WRITING A1

SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

DIGITAL SKILLS

My Digital Skills

Exprience using Latex | Microsoft Office | Microsoft Word | Microsoft Powerpoint | Soldering and de-soldering of electronic components. | Matlab/Simulink | Microcontroller Programming in C | PCB Design & Layout | LTSpice, PSpice, MicroCap | Linux (main OS) | 3D Designer. | Hardware: Create and design schematics and circuits with study its behavio | Canban | Serial communication(RS-232,485) | Embedded communication protocols | Measurment Tools: Oscilloscope, Multimeter, Power Supply, Signal Generator | KiCAD , Altium CAD tools

JOB-RELATED SKILLS

Job-related skills

- Three eight of experience in automotive projects
- More than 14 years of experience in designing analog and digital circuits
- Experience in finding faults in the design and the hardware
- Routing multi layer, high density boards (Altium, OrCad)
- Circuit simulation (SPICE)
- Designing DC-DC converters
- Designing embedded systems
- Over 10 years of experience working with microcontrollers
- Writing firmware in C or assembly language

Problem Solving Expert

Use the 8D methodology to narrow down possible root causes

Manage the team to follow this approach

Bring the process view into the thinking

DRIVING LICENCE

Cars: B

PUBLICATIONS

Publications

- A custom-developed, handheld EIS measurement platform. 5th European Conference of the International Federation for Medical and Biological Engineering. ISBN: 978-3-642-23507-8
- Measurement platform for atmospheric pressure sensors, SIITME 2011, E-ISBN : 978-1-4577-1275-3
- Web Server Based Remote Health Monitoring System, 32nd International Spring Seminar on Electronics Technology, 2009, ISBN: 978-1-4244-4260-7
- Járművezetők EKG jeleit mérő rendszer kialakítása. A JÖVŐ JÁRMŰVE 3, 2008
- Sensor-net for Monitoring Drivers' Vital Parameters. Proceedings of the 8th International Symposium of Hungarian Researchers on Computational Intelligence and Informatics (CINTI), ISBN: 978 963 7154 65 2
- Sensor-net for Monitoring Vital Parameters of Vehicle Drivers. ACTA POLYTECHNICA HUNGARICA 4

PROJECTS

Projects

Participation in numerous Electronics Technology Department and EU funded projects (also as a student) from which the most important projects are:

- MAGNETEC-UNGARN (2011):
 - Development of new PCBs from existing schematics
 - Integrating customer's change requests on the PCBs
 - Managing the manufacturing, and assembly of the PCBs
- DVT-IMP, EU FP6 (2009):
 - Creating the main board (schematic, layout) in a handheld Deep Vein Thrombosis measurement device
 - Development of a control electronics for fluidic Micropump, creating a GUI control software
 - Keeping in touch with foreign project partners
- BOSCH (2009):
 - Development and realization of the LED lighting part of a Pin in Paste device
- Nokia (2006):
 - Participating in the development of a 64 slot battery charger, development of battery charger electronics part

CONFERENCES & SEMINARS

Seminars

FMEA training (document number: 890020)

HONOURS AND AWARDS

Honours and awards

- 1st place - BUTE-VIK Scientific Students' Associations, Image processing and biomedical section, 2006
- 3rd place - National Scientific Students' Associations, Engineering science section, 2007
- 3rd place - BUTE-VIK Scientific Students' Associations, Image processing and biomedical section, 2009
- Excellent Poster Award - Symposium for Design and Technology in Electronic Packaging (SIITME), 2011

ORGANISATIONAL SKILLS

Organisational skills

- As a senior hardware design engineer it was my responsibility to manage and help other hardware designer colleagues
- As a Ph.D student I supervised and managed 4 to 6 students' work
- As a technical instructor I managed one or two students' work from technical point of view

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

- Excellent communication skills in English what was obtained in several years of practicing. These skills were useful in various EU projects.

OTHER SKILLS

Other skills

- Striving for perfection, precision
- Team player
- Working independently
- Responsibility for the work
- Problem solving

HOBBIES AND INTERESTS

Astronomy

Photography

Swimming

Embedded Linux systems

Archery

Motorcycling