BOSCH
Invented for life
Summer Student Program
@ Bosch Engineering Center Cluj
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Let’s be remarkable.

Bosch Engineering Center Cluj

Software Engineering for Automotive Industry

Video Systems

Ultrasonic & Radar Systems

Electric Power Steering

Artificial Intelligence / Machine Learning / C / C++ / C# / Computer Vision / / Image Processing / Matlab / Python / Java / .NET / Angular / JavaScript / / IoT / Simulink / Spark / Hadoop / Data analytics and visualization

Software Engineering for Multimarket

IoT & Connectivity Solutions

Software Campus

OOP (Object Oriented Programming) / Java / C / C++ / Matlab / Simulink / / Bosch IoT Cloud / Software verification and validation

Engineering Quality & Validation

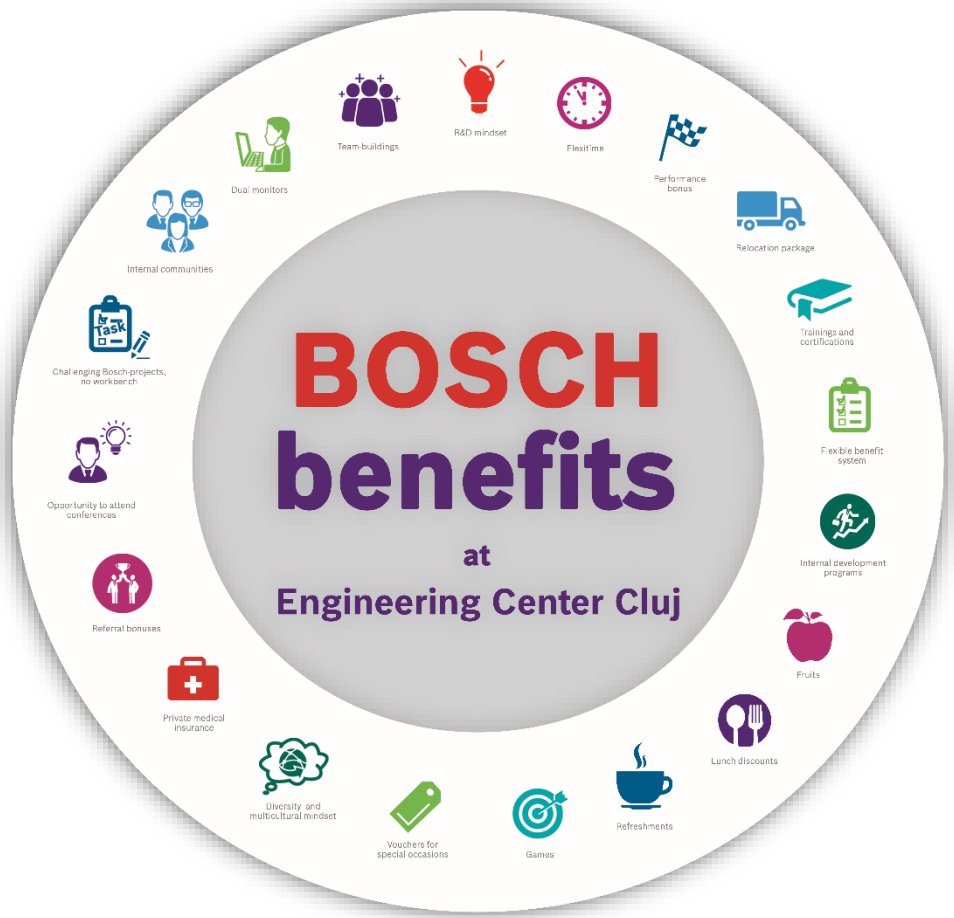
Analysis

Reliability

Testing

Laboratory

Physics / Mechanical Engineering / Chemical Eng. / Electrical Eng. / / Material Sciences / Electronics / Quality



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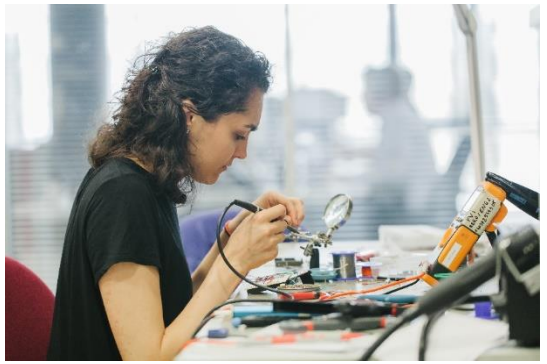
BOSCH

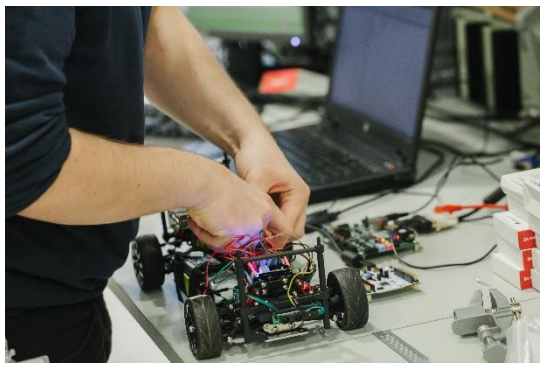
Bosch Engineering Center

Discover new directions. We hire the attitude and train the skills.

Join our student program and you will:

- Shape the future with your ideas
- Meet the challenges of future technologies and discover game-changing solutions
- Gain deep insights into topics of software, hardware, reliability engineering and mechanics





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✓ *Over **300** talented engineers @Bosch Engineering Center.*
✓ *Working with the next generation technology for developing multiple areas, such as: **Autonomous driving**, **IoT**, **Industry 4.0**, **Electric vehicles**.*

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SOFTWARE AUTOMOTIVE & MULTIMARKET

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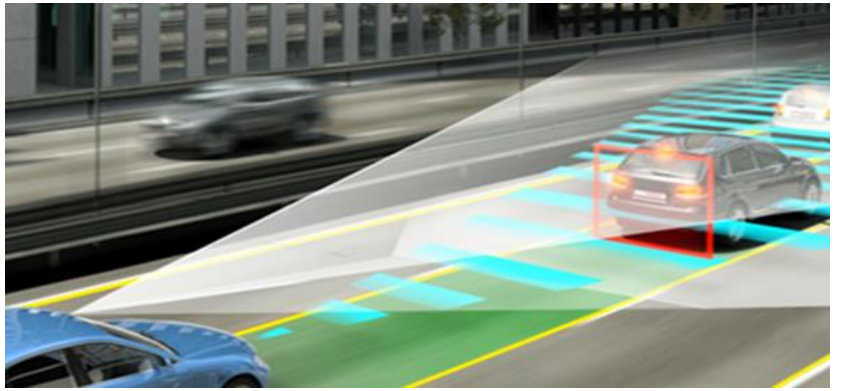
Video Systems and Connectivity

We develop software technologies, algorithms and connectivity solutions for driver assistance and automated driving, artificial intelligence, machine learning, connectivity, cloud.

Student projects

- **Algorithms development** (computer vision, image processing, machine learning, signal processing) using C/C++, Matlab, Python
- **Embedded C/C++ software** (hardware friendly algorithms implementation)
- **C++ Software** development using frameworks like OpenGL, QT
- **Full stack web** development (Java or C#/.Net, Angular, JavaScript, IoT)
- **Cloud Software** development (Spark, Hadoop, data analytics and visualization)



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Ultrasonic & Radar Systems

We are developing systems for Driver Assistance & Automated Driving in the area of SW (C/C++, MatLab), Microcontrollers, Signal processing, Control engineering.

Student projects

- Work with cutting-edge technologies that will contribute to the development of **Self Driving Vehicles** using **Radar & Ultrasonic sensors**.
- Leave a deep footprint on the future of **Mobility & Autonomous Driving** and have the chance to experiment your ideas.

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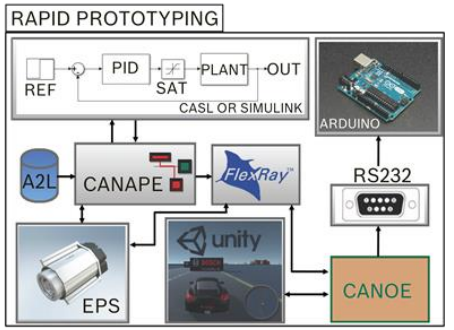
Electrical Power Steering

We are responsible for software development of electrical power steering. We use technologies such as CANoe, CANape, dSPACE, ODXStudio, Diagnostic Tool and mastering multiple programming languages: C/C++/C#/Matlab/Simulink/Python.

Student projects

- Your work can vary from **developing embedded software** for the electrical power steering control unit to creating an environment (through software and control loops) that will trick the steering system that is inside the car (steering driving simulator).
- Find your **Bachelor Thesis project** and develop it with us. You will be trained by experienced engineers during the entire process.



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BOSCH

IoT & Connectivity Solutions

We develop Smart sensors and IoT software solutions for our innovative I4.0 products that are used everywhere across the world.

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Student projects

- You will **develop solutions** that will be deployed in cloud with end-customer reports, predictions alarms, configurations and visualization for IoT sensors and/video cameras topologies.
- You will learn **Java, Spring, MVC, Spring boot, communication protocols, web services and machine learning**.
- You can work on your own project idea, if it is related to the IoT.
- Working for **OOP (Object Oriented Programming)** where JAVA is a must.

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Software Campus

We contribute to development of the future technologies in area of Light Electric Mobility, Connected Mobility and IoT, which are enabling an individual, flexible and emission-free mobility. Our everyday work involves C, C++, Matlab/Simulink, Bosch IoT Cloud, JAVA full-stack, SW verification and validation.

Student projects

- You will bring concepts to prototype phase (**HW, SW and Mechanics**).
- Develop your **R&D mindset** (idea, concept, demo).

  and experiment different technologies
- **Find your Bachelor Thesis project** and develop it with us.

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ENGINEERING
QUALITY & VALIDATION

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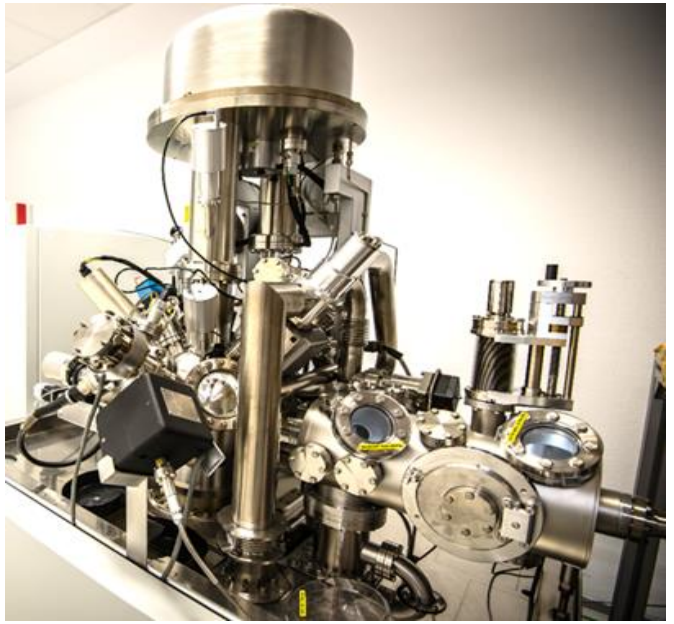
Analysis Group

We are responsible for the physical – chemical investigation of tested electronic components. We also deal with the investigation of claimed parts or the 3D measurement of the raw materials. We are mastering physics, chemistry, materials sciences, electronics, metrology.

Student projects

- You will be involved in the daily activity of the group, which can be **electronics, metrology or material sciences**.
- You will understand how the quality standards are implemented in our daily work, and **how we make sure that our products are reliable**.
- Students can work on their own projects, diploma thesis preparation
- You can work on your **Bachelor Thesis project** and develop it with us.



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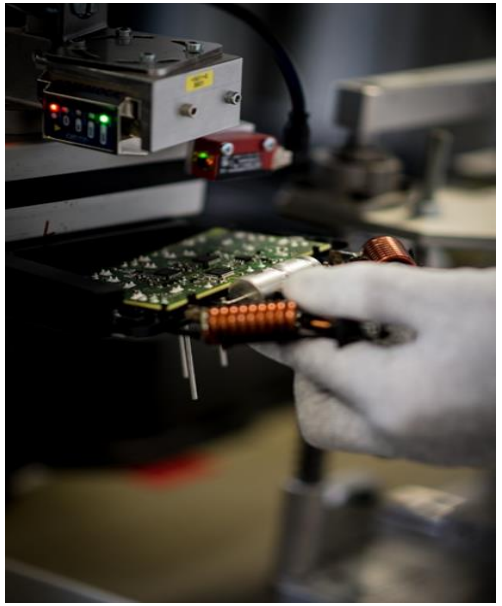
Laboratory Group

We are responsible for laboratory operations to assure quality for series production from plant through regular inspections.



Student projects

- You will have the possibility to **know the products** and to **understand the processes from production**.
- You will **make regular inspections** and will confirm the **quality requirments** of products before sending to logistic.
- You will have the possibility to work in different shifts.

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Testing Group

We coordinate the testing process and overall laboratory activities and use advanced technical knowledge in multiple areas: electrical, mechanical, chemical.

Student projects

- You will work with **environmental testing**, **lifetime simulation** and **endurance**.
- You will do **elaborate planning** and follow up of the daily projects and tasks.
- You will use and focus on gaining in-depth learning of the **laboratory resources managing tool**.

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Choose a project and send us your CV!

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