The New Automation Technology
1. Who we are - Beckhoff Profile
2. What we do
3. Career prospect & Opportunities
4. Questions
1. Who we are | Beckhoff Profile
The results of increasing population and incomes

More people demand more consumer goods.

More people demand more energy and resources.

More people demand more infrastructure.

How to overcome the challenges?
Only automation technology:

- Enables and optimises resource-friendly and energy-efficient manufacturing processes for the growing wealth and population

- Realises living environments and infrastructures for a growing population with higher demands... with sustainable and efficient use of energy and resources
Beckhoff globally provides leading-edge automation technology for ...

- machine manufacturers
- factory automation applications
- energy suppliers
- building automation projects
- Infrastructure applications
- … and many more
Without us, the lights would go out in Bavaria …
Beckhoff technology: Changi Airport, Singapore

… and you could not experience the Kinetic Rain in Singapore.
Beckhoff technology: Nobilia, Germany

… are the basis for the state-of-the-art kitchen manufacturer.

**Estimation:**

- Nobilia has approx. 30% market share in Germany
- Nobilia is the biggest kitchen manufacturer in Europe
- 500,000 kitchens/year

- Every third kitchen in Germany is manufactured with Beckhoff control technology
Beckhoff technology: Elettric80, Italy
Beckhoff technology: Teatro alla Scala, Italy - Modernization of stage equipment
Beckhoff technology: Xesa, Italy
Full-motion simulator for ultra-realistic driving simulation
Beckhoff Worldwide

Headquarters: Verl, Germany
Employees worldwide: 3,850
Number of engineers: 1,300
Offices in Germany: 21
Beckhoff Offices WW: 35 countries
Distributors Worldwide: more than 75 countries
Sales 2016: 679 million € (+9.5%)
Sales 2017 (Est.): 800 million € (+18%)
Beckhoff Italy

Head Office: Limbiate (MB) Italy
Employees: 48
Number of engineers: 26
Beckhoff Branch Offices: 3
Sales 2016: 31 million € (+31%)
Sales 2017 (Est.): 38 million € (+23%)
2. What we do
TwinCAT 3 eXtended Automation
PC-based control technology from Beckhoff sets new standards in automation.
Support for multi-core systems

- distribution of modules to individual cores (e.g. PLC, Motion control and HMI run on different cores)
- scalable base time for each core
- scalable CPU usage for each core
- C/C++ code integration
  → Method *CycleUpdate*: – is called cyclically from a task
<table>
<thead>
<tr>
<th>NC PTP</th>
<th>Interpolated motion with 3 axes and 5 additional axes</th>
<th>Complete CNC functionality</th>
<th>Interpolated motion for robotic control</th>
</tr>
</thead>
</table>
| Point-to-point movement | - gearing  
|                   | - camming  
|                   | - superposition  
|                   | - flying saw | - interpolated movement for up to 32 axes per channel | - support for a wide range of kinematic systems  
|                   |                                        | - technological features  
|                   |                                        | - straightforward utilisation through function blocks from the PLC | - optional torque pre-control |
XFC – eXtreme Fast Control Technology

I/O Response Time < 100 µs

Input Conversion
Input Communication
Calculation
Output Communication
Output Conversion
TwinCAT HMI

- Efficient engineering
- HTML5, JavaScript
- Platform-independent
- Web-based
- Powerful architecture
- Modular expandability
Operating systems, browsers, devices: it’s your choice. TwinCAT HMI automatically adapts to your needs.
IPC Overview

Panel PCs

Embedded PCs

Control cabinet industrial PCs

Control Panel

Ultra Compact IPC
EtherCAT

Ethernet for Control Automation Technology
Beckhoff | The I/O Company

Ethercat I/O Overview

Ethercat terminal

Measurement Modules

Ethercat box

Ethercat P – One cable solution
Servo Drives from 0.2 to 120 kW
Servomotors from 0.2 to 180 Nm
### Motion Overview

<table>
<thead>
<tr>
<th>Servo Drives</th>
<th>Servomotors</th>
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<tbody>
<tr>
<td><img src="image1" alt="Servo Drives" /> <img src="image2" alt="Servo Drives" /></td>
<td><img src="image3" alt="Servomotors" /> <img src="image4" alt="Servomotors" /></td>
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<tr>
<th>Compact Drive Technology</th>
<th>eXtended Transport System</th>
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<tr>
<td><img src="image5" alt="Compact Drive Technology" /> <img src="image6" alt="Compact Drive Technology" /></td>
<td><img src="image7" alt="eXtended Transport System" /></td>
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</table>
XTS – eXtended Transport System
3. Career prospect & Opportunities
What sets us apart

In contrast to most of our competitors, Beckhoff has always been – and will always be – an owner-driven company.

People who become part of the Beckhoff Automation team are given the opportunity to:

- work in a family company with **FAMILY VALUES**
- face with innovative, **TECHNOLOGICALLY**, advanced and rapidly growing environment
- accelerate their professional growth: **KNOWLEDGE SHARING** and **TRAINING** are the key elements in a technology driven company such as Beckhoff

We grant high standards of **TRAINING** both local and linked to the German HQ on all the product range (Industrial PCs, I/O and Fieldbus Components, Drive Technology and automation software)
Beckhoff Automation offers numerous opportunities for starting careers with:

- Internships for university students in order to support the development of thesis
- Hiring for new graduated

**Application Engineer**

**Responsibilities**

- Provide technical assistance across Beckhoff’s product range for internal and external customers
- Fault finding and troubleshooting on existing systems
- Product servicing and repair
- Represent the organization in a professional, ethical and socially responsible manner

**Sales Engineer**

**Responsibilities**

- Manage and generate new business opportunities
- Develop sales with OEM and End User customer accounts using appropriate products and solutions
- Successfully build relationships with current customer base and provide necessary sales support
- Represent the organization in a professional, ethical, and socially responsible manner
Working at Beckhoff

We’re looking for talented young people who have:

• Bachelor’s Degree in Engineering, or equivalent
• Familiarity with Automation and Control Systems
• Strong interpersonal skills with ability to interact with customers
• Flexible and adaptable to changing support priorities
• Willing to travel

Whether you are a university student, graduate or professional, we look forward to your application!

Please send your application to: jobs@beckhoff.it.
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4. Questions