


МAY, 2018

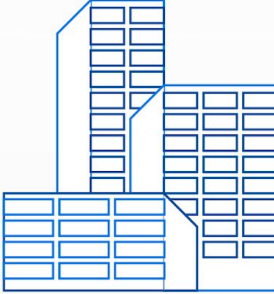
# Industrial automation opportunities career opportunities

# ABB Group in brief

~135,000   
employees

 \$34 billion  
in revenue  
(2017)

Present  
in  
~100   
countries

Formed  
in  
1988   
merger of Swiss (BBC, 1891)  
and Swedish (ASEA, 1883)  
engineering companies

# Industrial Automation (IA) division Customer Markets

## Process Industries

## Discrete & Hybrid Industries

**Oil & Gas**



**Refining & Chemicals**



**Mining & Metals**



**Food & Beverage**



**Pharma**



**Power generation & Water**



**Marine & Ports**



**Base Industries**



**Machinery**



**Data centers, infrastructure, other**





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# Industrial Automation division

## Main customer segments

### Marine and Ports

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- Cruise ships
- Oil & gas vessels
- Ice breakers
- Container cranes
- Port management systems

### Process Industry

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- Pulp & paper plants
- Metal plants
- Cement/aluminium plants

### Mining

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- Underground mining
- Open pit mining
- Minerals processing

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# Industrial Automation division

## Main customer segments

### Oil & Gas & Chemicals



- **Off shore platforms**
- **Floating production units**
- **Onshore terminals/pipelines**
- **Petrochem/refining**
- **Chemicals**

### Datacenters & Pharmaceutical



- **Power management**
- **Building management**
- **Server management**
- **HV & LV distribution**
- **Process control and batch control**

### Power Generation



- **Combined cycle plants**
- **Hydro power plants**
- **District heating**
- **Turbine control**



# Industrial Automation division

Process automation systems, +24.000 employees worldwide



## Systems solutions for process automation

- **Complex automation and electrical solutions for:**
  - **Process industry (oil&gas, Marine, Paper, Metals, Mining)**
  - **Power generation**

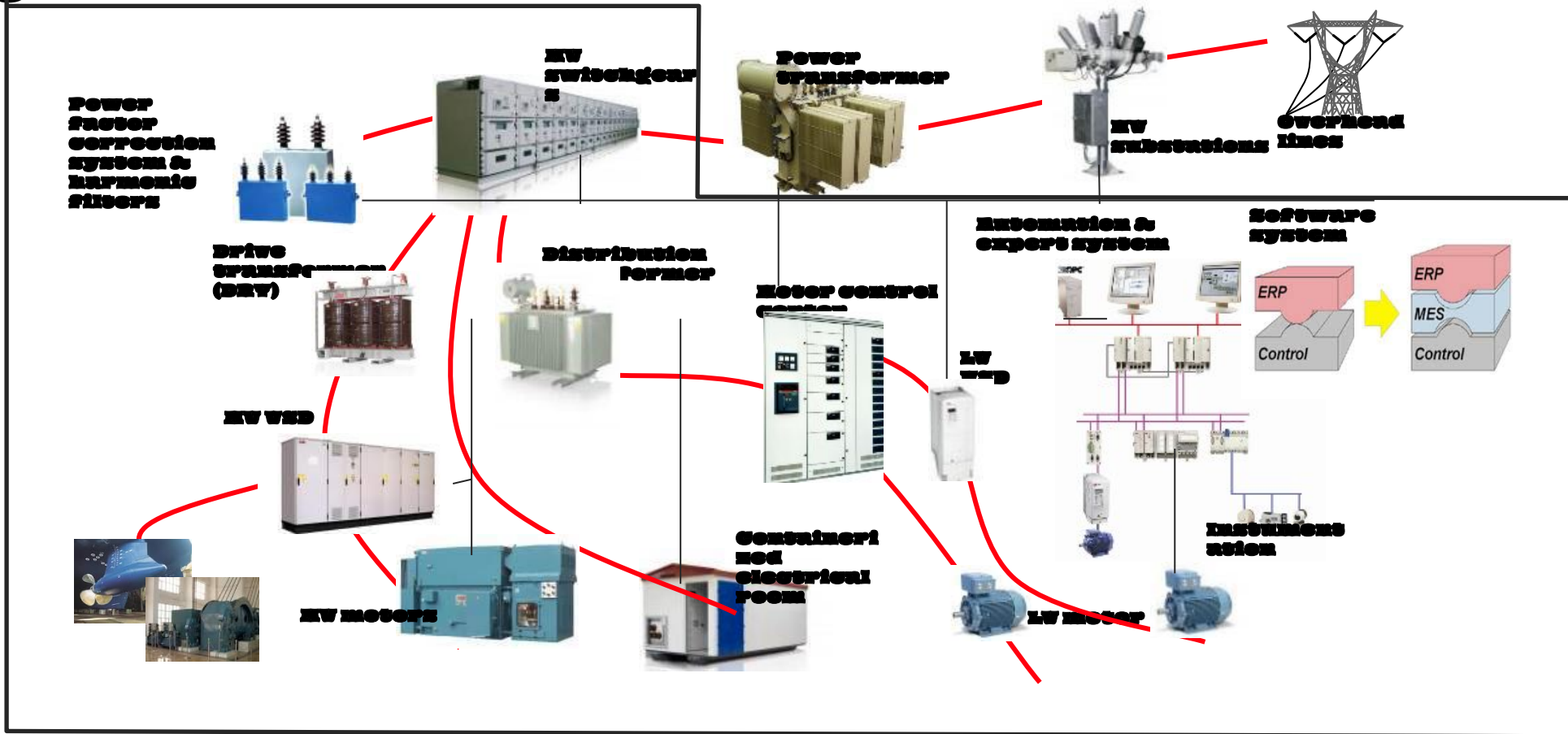
## Project delivery scope:

- **Programmable logic controllers (PLC)**
- **Distributed control systems (DCS)**
- **Drives and motors systems**
- **Electrification (HV & LV power distribution)**
- **Level 3 Management software systems**
- **Mechanical structures**



# Engineering centers

Core competencies: Automation, electrification and software systems

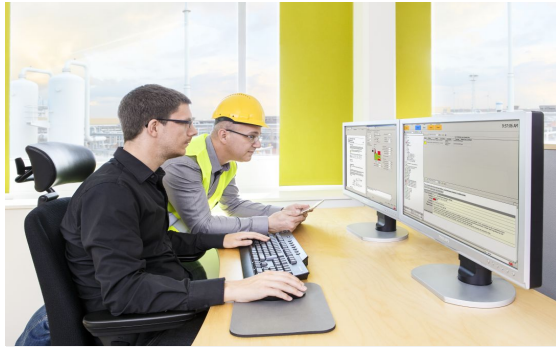




# Engineering center competencies

## Automation engineering

### OUR competencies



- **Application software architecture, design and implementation**
- **Safety application architecture, design and implementation**
- **Testing and configuration**
- **Engineering & commissioning**

### What we can provide



- **Complex project management**
- **Complex application software solutions**
- **Testing supervision**
- **Commissioning supervision**
- **Complex package delivery (turn-key) for**

### Technologies we use



- **800xA systems: AC 800H, AC800HI**
- **Advant systems: AC400, AC100, Safeguard,**
- **AC500, Freelance,**
- **S+ Operations, S+ Harmony, S+ Melody**
- **HIMA (non-ABB Fail-Safe System - in cooperation with CZ-LBU)**

# Engineering center competencies

## LV electrical engineering

### OUR competencies



- LV cabinets design (Control, Net, Distribution, MCC, MNS, Tailor made)
- LV electric installation (IAT, FAT, HAT, site supervision)
- Electrotechnical documentation (ACAD, EPLAN E3, EBase)
- LV studies (selectivity & coordination, short circuit, power & heating)

### What we can provide



- Complex LV solutions including Ex for various technologies
- Lead engineering of HW teams
- LV engineering support
- Cabinet manufacturing supervision (local suppliers)
- Integrated

### Technologies we use



- Engineering tools for electrotechnical documentation - EPLAN, E3, EBase, ACAD, EIP
- LV studies WIN DOC 2.0, Curves, Therm
- Electrotechnical standards IEC, EN, GSN and many others

# Engineering center competencies

## HV electrical engineering

### OUR competencies

- **Medium voltage basic and detail engineering**
- **Bid & proposal including sales support during FEED and bid**
- **Power system studies – load flow, short circuit study etc.**
- **Protection relays setting, mimic diagram**
- **Special design for high power motors**
- **Design of control network for HV switchgears including transformer control, visualizations, SCADA**

### What we can provide



- **Complex package delivery of HV equipment such as HV switchgears, HV motors, HV drives etc.**
- **Factory acceptance test (FAT) for HV motors, switchgears and other HV equipment**
- **Commissioning**

### Technologies we use



- **HV switchgear – AIS Unigear ZS1, GIS ZX**
- **HV drives – ACS1000, ACS2000, ACS5000, ACS6000**
- **HV motors – AMI, AXD, AHS**
- **UPS system – Dale, AEG, Emerson**
- **Protection & controls relays – Relion6XX, REF5XX**
- **Power transformers**



# Engineering center competencies

## Drives engineering

### OUR competencies



- LV & HV drives engineering
- LV & HV drives commissioning, service and maintenance
- RDS engineering & commissioning
- Complete LV & HV drives design
- Dimensioning of generators and transformers
- RDS design

### What we can provide



- Electrical design of RDS, LV & HV drives, generators, transformers etc.
- Factory acceptance test (FAT), commissioning, sea trial
- Service & maintenance of RDS, LV & HV drives
- Special services

### Technologies we use



- ACS 800/880
- ACS 6000
- DCS 600
- Start drives

# Engineering center competencies

## SW engineering & development

### OUR competencies



- **Software architecture, design and implementation**
- **Application testing, configuration and maintenance**
- **Software project management**
- **Interface management information**
- **Software product lifecycle**

### What we can provide



- **Complex software solutions, complete software products**
- **Web, desktop & mobile applications development**
- **Integrated operation installation, configuration & testing**

### Technologies we use



- **UML modelling for requirements specifications**
- **Microsoft .NET as Applications Framework**
- **VisualStudio, TFS, Eclipse IDE for development & source control**
- **MVC4/5, HTML5, AngularJS, WPF for user interface design**

# Operation and Engineering centers

## Co-operation with universities

### Universities

**VSB – Technical University of Ostrava, CZ**

**University of West Bohemia, CZ**

**University of Žilina, SK**

**Future: Russian universities**

#### Activities:

- Open days for students & job fairs
- Partnership with universities to support science, technology & best practices
- **Attracting the best talents**
- **Use of equipment & technologies to university classes**
- **Bachelor & diploma thesis**



**VSB –  
Technical  
University  
of Ostrava**



**University  
of West  
Bohemia**



**University  
of Žilina**



**Russian  
universiti  
es**



# Operation and Engineering centers

## Career opportunities

### Competency development



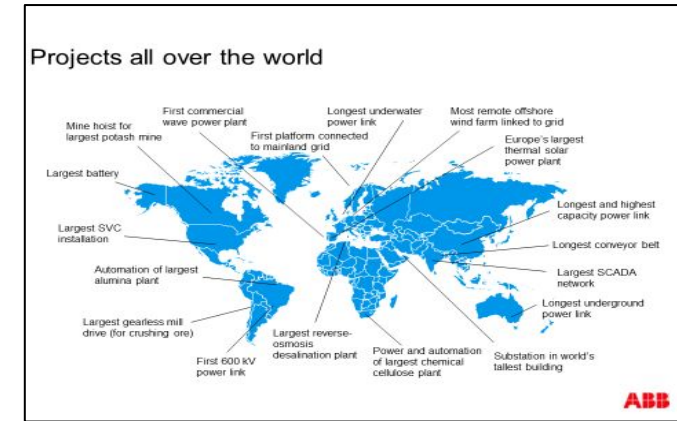
- ABB product and system training
- Software tool training
- Project management training
- Leadership training

### Team work & Personal growth



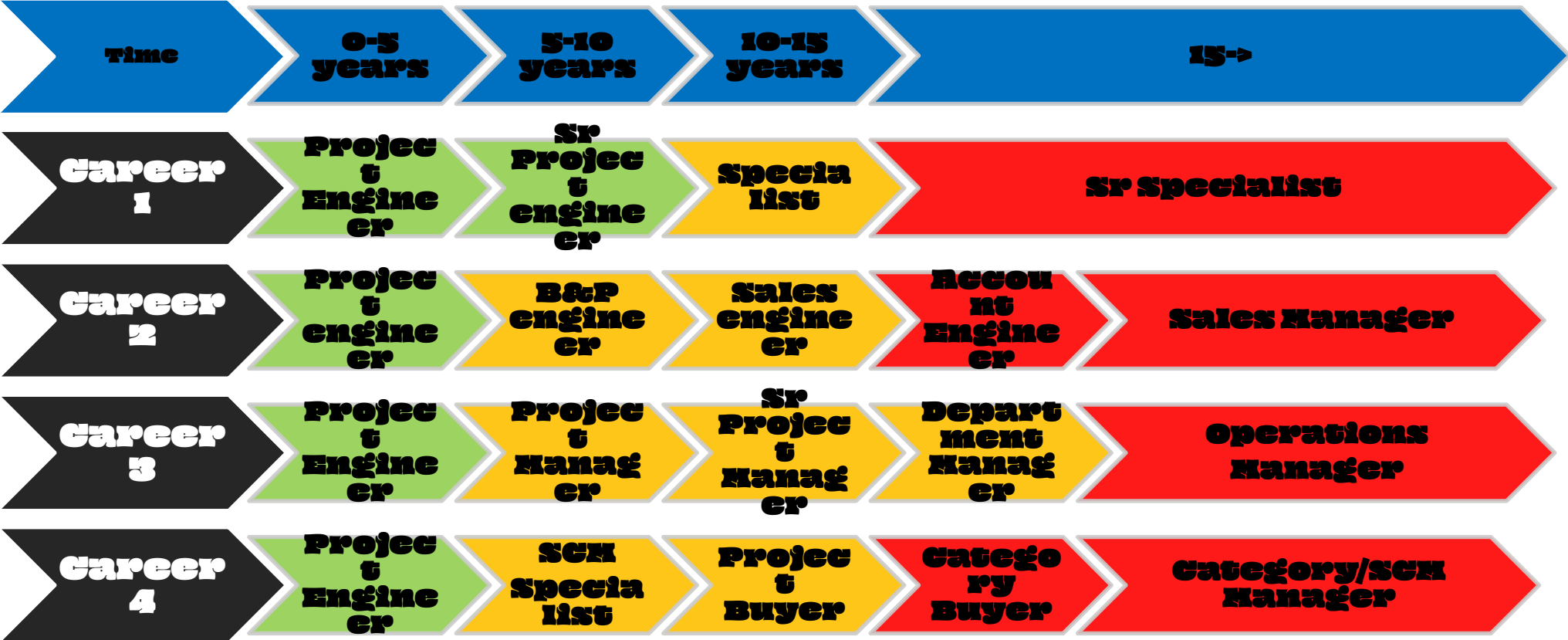
- Join team of experienced colleagues
- Work with latest technologies & tools
- Increasing responsibilities
  - Lead engineer
  - Project management


### International projects



- Europe
- North America
- South America
- Middle East

# Operation and Engineering centers Career paths





**we are hiring  
now!**



# What are our expectations?

- **Appropriate education, Specialist/Master degree in electrotechnics, electrical or IT preferred**
- **Ability to communicate in English language**
- **Global mindset with a passion to work in a multicultural environment**
- **Ability to work independently**
- **Team player who is flexible and open to new challenges**
- **Flexibility to travel abroad on business trips**



**Click next slides to see our job offers**

# Automation Engineer

## Job responsibilities



- **Develop design, specification and documentation of automation systems according to requirements**
- **Create functional description and program SW applications**
- **Coordinate with hardware design**
- **Perform FATs**
- **Commissioning on customer site**
- **Proactively participate in project teams**
- **Contribute with creative ideas in order to develop solutions that keep pace with technology and market trends**
- **Produce technical documentation in accordance with ABB's and end customers' requirements**

# Electrical Engineer

## Job responsibilities



- **Design, specification and documentation of LV/MV or HV electrical system solutions according to requirements**
- **Electrical system studies (short circuit, relay settings etc.)**
- **Technical clarification with sub-suppliers and end-customers**
- **Assist in preparing technical part of quotations**
- **Commissioning on customer site**
- **Participate proactively in project teams**
- **Contribute with creative ideas in order to develop solutions that keep pace with technology and market trends**
- **Produce technical documentation in accordance with ABB's and end-customers' requirements**



# Software Engineer

## Job responsibilities

- **Analyses of requirements and recommend solutions**
- **Technical design of application/product features**
- **Development, basic testing, evaluation and maintenance**
- **Participate proactively in project teams**
- **Contribute with creative ideas in order to develop solutions that keep pace with technology and market trends**
- **Produce technical documentation in accordance with ABB's and end-customer's requirements**



# **What we offer**

## **Benefits**

- **Member of a global operations team collaborating to deliver solutions to customers worldwide**
- **International experience and a career in engineering project business**
- **Competitive salary and incentive pay system**
- **Wide range of business benefits**
- **An open company culture that supports the growth of talents, training and continuous development.**
- **Use of foreign languages, regular and ongoing language courses**
- **Relocation support**

**Be part of ABB, a global pioneer in engineering**

# How to join ABB

## Recruitment process

**Would you like to join our Engineering Center Russia? Please follow the steps below!**

**1. Send your CV in English or Contact us:**

**E-mail: [hrcenter@ru.abb.com](mailto:hrcenter@ru.abb.com) Phone: [+7 \(495\) 777 222 0, ext 2141](tel:+7(495)7772220) – Kuvyrtalova Julia**

- 1. We will get in touch with you and discuss details.**
- 2. You will have interview with your potential manager.**
- 3. IF both you and your manager find that future cooperation is possible, you will discuss details about salary, benefits and start date.**
- 4. We will help with your relocation and take care about all the paperwork.**
- 5. Done. You can start.**

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**We look forward to your CV's!**



**Are you interested but  
still studying?**

**No worries, we have  
special offer for you as  
well!!**

**Next slides will show what we have  
prepared for you....**



# **Sponsored M.Sc. program in the Czech Republic**

**Are you finishing your bachelor studies this year and already thinking about your future?**

## **We offer:**

- **2 year M.Sc. program, accredited in English at VSB - Technical University of Ostrava – starting autumn 2018**

**( <https://www.vsb.cz/en> )**

- **Study programs:**

- ✓ **Power engineering**
- ✓ **Automation systems**
- ✓ **Software development**

**Financial support – contribution towards tuition fees**

**Internship - during studies at ABB operation center in Ostrava**

**Possibility of perspective employment - in ABB Engineering center**

**Kaliningrad**



## **Contacts**

**Secure your future today and  
contact us!**

**mail: [hrcenter@ru.abb.com](mailto:hrcenter@ru.abb.com)**

**tel: +7 (495) 777 222 0, ext 2141 – Kuvyrtaiova Julia**



**A A B B**