Education Guide 2016/17
Partnerships and Perspectives of Arab-German Cooperation

www.ghorfa.de
Complete Solutions for Technical Education

Our Topics

- Installation Engineering
- Electrical Power Engineering
- Renewable Energies
- Power Electronics, Electrical Machines, Drive Technology
- Fundamentals of Electrical Engineering and Electronics
- Communications Technology
- Control Technology
- Electropneumatics and Hydraulics
- Measurement and Instrumentation Technology
- Metal Technology
- Refrigeration and Air-conditioning Technology
- Microcomputers
- Automation
- Vehicle Technology
- Laboratory Systems

Multimedia Courses in Arabic Language

Installation and Training
After Sales Services

Lucas-Nuelle Middle East FZE
Dubai Silicon Oasis, HQ Building A-wing, Office No 503
P.O. Box 351353
Dubai, United Arab Emirates
Tel.: +971 (4) 5 015 639
www.lucas-nuelle.ae
Education Guide 2016/17

Partnerships and Perspectives of Arab-German Cooperation
# Table of Contents

## Prefaces

- Prof. Dr. Johanna Wanka .................................................. 5
- Dr. Peter Ramsauer, Abdulaziz Al-Mikhlafi .......................... 7
- Prof. Dr. Wassilios E. Fthenakis ........................................ 9

## Vocational and Higher Technical Education and Training

- Skilled worker development for Industry 4.0 | iMOVE ............. 12
- Modern vocational education: interactive technical qualifications from the cloud | Lucas-Nülle GmbH .............................. 16
- Siemens and KWS collaborate to train Egyptian power plant personnel | KWS PowerTech Training Center ............................. 21
- Creating sustainability—successful UAE-German training cooperation | SPA GmbH .................................................. 25
- Training Egyptians: creating value for society through knowledge transfer | Siemens Egypt ................................................ 29
- Industry 4.0: preparing technical specialists for the future today | Bosch Rexroth AG .............................................. 32

## Cooperation in Higher Education

- GUtech—the sole German university of technology in the Gulf region | German University of Technology in Oman (GUtech) .......... 40
- MBA renewables: preparing professionals for the renewable energy and energy efficiency sectors | Beuth University of Applied Sciences & Renewables Academy AG (RENAC) ................................................. 44
- The “Magellan MBA” experience in Germany | GISMA Business School ............................................ 48

## Research and Development

- AGYA receives 4 million Euros in funding for research projects that go beyond disciplinary limitations | Arab-German Young Academy of Sciences and Humanities (AGYA) ............................................. 54
The Arab region is currently undergoing a highly dynamic transformation and Arab-German cooperation in education offers huge potential for promoting further progress in the region.

I am therefore delighted that this new edition of the Education Guide highlights perspectives and opportunities for cooperation in the education sector. The Education Guide gives a good overview of German providers of initial and continuing vocational training who offer their international clients wide-ranging programmes under the “Training – Made in Germany” initiative and specialize in the practice-based elements which make the German dual system of vocational education and training so successful.

We welcome the fact that vocational training is once again playing a major role in this year’s Arab-German Education Forum, with the main focus on the energy and tourism sectors. The energy sector is a key factor in the Arab region. The Arab states are concentrating on developing non-petroleum based energy sources and need skilled experts in this field in the future. German companies are virtually predestined to contribute their experience here as Germany combines the necessary technologies in fields such as wind and solar energy or water resources management with expertise in vocational education and training.

Initial and continuing vocational training are also important for the tourism industry, not least in the northern African states, where tourism is of decisive importance for economic prosperity and thus for social and political stability. The Arab-German Chamber of Commerce and Industry will devote increased attention to the tourism sector this year. Initial and continuing training efforts will centre on producing trained professionals who know how to work sustainably and are able to meet the demands of guests from all over the world.

I wish iMOVE and Ghorfa every success as organizers of this year’s Arab-German Education Forum and hope that everyone involved will enjoy interesting exchanges.

Prof. Dr. Johanna Wanka

Federal Minister of Education and Research
Education is one of the main pillars of Arab-German cooperation. The level of education and the investments in research and development have a significant and long-term impact on the performance of every national economy.

In Germany, enormous amounts of money are invested in the development of new technologies and innovations. No other country in Europe invests larger sums in research and development, and expenditures have been continuously rising in the past years. The German vocational education and training system, known as the dual training scheme, is highly recognized worldwide due to the combination of theory and training embedded in a real-life work environment.

Arab governments are focusing to enhance the quality of education to meet the demands of the economy, and to offer sustainable job opportunities for the growing number of youth. Strengthening competitiveness through education is essential for the region to create more jobs for the growing population.

Our chamber sees great potential for Arab-German partnerships in the education sector. The German vocational training system is an excellent model for enhancing employability combining both practical skills and theoretical know-how. Many successful bilateral projects have already been initiated, which we are delighted to present in the third issue of the Arab-German Education Guide—Partnerships and Perspectives of Arab-German Cooperation. The projects show that education “Made in Germany” can strengthen innovative education projects all over the region.

The Arab-German Chamber of Commerce and Industry has an efficient network, consisting of both institutional and entrepreneurial decision-makers from Arab countries and Germany. As the representative of all Arab Chambers of Commerce and Industry in Germany, our role is to support the promising Arab-German business relations in close cooperation with our members and partners. We offer many activities in all branches, including the education sector. Besides our publications, we—together with our Arab and German partners—also organize the yearly Arab-German Education and Vocational Training Forum. The conference has established itself as the most prominent information and networking platform for vocational education and training companies, universities and colleges, as well as for public and educational institutions from Arab countries and Germany.

Our main objective is to develop and to strengthen business relations between Germany and the Arab world. Strategic partnerships create new business opportunities with benefits for both sides. The success of our activities always depends on the feedback and the involvement of our members and business partners. Therefore, we would like to thank you for your commitment.

With this book, we would like to encourage you to strengthen Arab-German business relations in the education sector and hope that it gives you many inspirations for future projects.

Dr. Peter Ramsauer
President
Federal Minister ret.

Abdulaziz Al-Mikhlaifi
Secretary General
During the past few years, a change has been taking place within international education systems. While the education systems of the 20th century simply authorized the transfer of knowledge from one generation to the next, today, they also have to focus from the start on supporting childhood development and skills. Only in this way we can prepare our children for the modern world and guide them so that they are commensurate to the challenges of a globalized 21st century.

This development is especially relevant in the Arab world, where many countries are incorporating changes to the social landscape. The German education sector, under the umbrella of the Didacta Association, would like to extend its knowledge and experience to help facilitate changes successfully within this transition period. We are aware of our great responsibility, as it is the quality of education that ensures the lasting implementation of new educational concepts.

Together with its partners, the Didacta Association will do everything it can do to ensure that from the beginning, education at all stages of a child’s development can be successful. We place great importance on our partnership with organizations such as Ghorfa, the Arab-German Chamber of Commerce and Industry, the Federal Ministry of Education and Research, and the Federal Institute for Vocational Education and Training (BIBB). We are delighted to be working side by side with such capable partners, and I am convinced that we will learn much from each other as we work toward our common goal of offering the best educational chances possible to every child and adult.

Prof. Dr. Wassilios E. Fthenakis

President, Didacta Association e. V.
Vocational and Higher Technical Education and Training
The digitalised world of work is changing the development of skilled workers

German companies provide technical solutions for manufacturing industries and are the world’s leading equipment suppliers. They are also regarded as pioneers in the intelligent linking of production technologies with information and communication technology and have taken on a leading role internationally in the development, operation and marketing of Industry 4.0.

The technical integration of cyber-physical systems within production and logistics is progressing at an unstoppable rate. The Internet of Things and Services involves “smart devices” with embedded computers and, increasingly, industrial processes will be run by devices such as these which will also communicate with one another. This development has far-reaching consequences for all business areas and company processes. However, this can only function at all if there is a supply of appropriately qualified skilled workers. In order to remain internationally competitive, all companies must meet this challenge - both in Germany and across the world.

The terms Industry 4.0 and Smart Factories signify a profound shift in the economy which will permanently change the world of work. The new technical opportunities provided by the automated control and the networking of work processes are having a far-reaching impact on the qualification requirements of specialists. These requirements in turn alter the methods used in the transfer of expertise; methods for which, in future, there will be worldwide demand from initial and continuing education providers.
Modern Vocational Education: Interactive Technical Qualifications from the Cloud

Lucas-Nülle GmbH

The generations who are taking up training or studies now and in the future have grown up with the new technology of the digital age. Computer games, e-mails, Internet, smartphones and instant messaging are an integral part of their lives. But how can these “digital natives” be inspired for static learning with books? The answer is: not at all! Training in technical occupations must therefore be changed and adapted in line with the conditions and requirements of the 21st century. That is the only way in which educational media can do justice to the constantly growing complexity with up-to-date learning material as well as to the requirements of future generations.

Young adults have different thought patterns as well as a fundamentally different way of processing information because of their ubiquitous interaction with digital devices and media. This generation—also called digital natives—is used to receiving information very quickly. They love to multitask. They prefer graphics to text and work best when they are connected. Frequent, immediate rewards are fundamental to learning success. This can and must also have corresponding implications for learning in schools, companies, colleges, and universities and, therefore, for all learning media.

Today’s reality in vocational training is different. In most cases, the kind of learners described above are virtually taken back to a pre-digital age when they start their training since digital media have not yet caught on in vocational training by a long way.
Siemens and KWS Collaborate to Train Egyptian Power Plant Personnel

KWS PowerTech Training Center

Siemens currently erects three gas-fired CCGT power plants in Egypt. One of the key aspects of this project is the training of local experts and professionals who will manage and operate the new facilities. KWS PowerTech Training Center has been assigned by Siemens to conduct a key part of the necessary foundation training, laying the groundwork for subsequent plant-specific instruction of the trainees.

In cooperation with its local partners, the Egyptian Ministry of Electricity and Renewable Energy and the Egypt Electricity Holding Company (EEHC), Siemens is building three CCGT (= Combined-Cycle Gas Turbine) power plants in Egypt, located at Beni Suef, Burullus and New Capital, a large-scale project involving an overall investment of €8 billion. The new natural gas-fueled plants will possess an overall electrical capacity of 14.4 GW, 4.4 GW of which will be connected to the national grid a mere 19 months after the signing of the contract between Siemens and its clients. This is a record-breaking six months quicker than any previous project worldwide.

Development of a substantial pool of local professionals

Of course, even advanced power plants like these, equipped with state-of-the-art control and systems engineering technology, are only as efficient as the people who manage, operate, and service them. Therefore, thoroughly and com-
Creating Sustainability—Successful UAE-German Training Cooperation

SPA - Simson Private Akademie

Located in the middle of Germany—in the “Green Heart” as the state of Thuringia is called due to its extensive forests—there is the city of Suhl. It has been the temporary home for more than 150 students and trainees from the United Arab Emirates who have participated in different training programs. Funded by the government of Abu Dhabi, these programs have been realized in the workshops and classrooms of the private training provider Simson Private Akademie GmbH, in cooperation with Merkel Jagd- und Sportwaffen GmbH, which belongs to the TAWAZUN Holding in the UAE. These programs have a direct impact on the consolidation of the VET system in the Arab Emirates where graduates help to promote further partnerships between the UAE and Germany.

“Hands on” for prospective engineers

Since 2008, Simson Private Akademie hosts mechanical engineering students from the UAE University in Al Ain. This pilot project has been the beginning of a steady cooperation, which lasts—and has expanded—until today. Based on a cooperation agreement with the University of Applied Sciences in Schmalkalden, the students receive practical training sessions in the modern workshops of the Simson Private Akademie in Suhl. The work-based learning starts with hand fitting techniques like filing and sawing and ends with the operation of conventional milling and turning machines. These basic skills are required in the entire metal-processing sector and the future engineers acquire necessary basic practical experience during their five months stay in Germany.
Following a period of uncertainty, Egypt is now resolutely setting the course for sustained development and economic growth. To achieve this goal, the government of Egypt has put forward a vision for 2030, serving as a roadmap to transform the country into a strong and stable economy over the long term.

Encompassing social, economic and environmental aims, the goal of Egypt Vision 2030 is clearly defined: By 2030, Egypt is meant to be among the world’s 30 most competitive countries.

Critical to achieving Egypt’s economic vision is having a productive, efficient, and innovative workforce. Operating an efficient energy system, advanced industrial production facilities or modern urban infrastructures, require the qualified large workforce of local engineers and technicians. Thankfully, Egypt’s society is highly dynamic, with a population younger and larger than Germany’s. And Egyptian citizens rightfully expect a bright and prosperous future for themselves and their families.

At Siemens, we believe that companies can only truly succeed if they help fulfill the needs of the society they operate in. Besides helping drive a country’s economic growth, businesses should add lasting value to communities. Therefore, and to build a pipeline of Egyptian experts in energy, Siemens started training the first batch of 600 Egyptian engineers and technicians. The move is part of the company’s
Smartphones, social media, the ever closer networking of people and devices: the technological shift has never been more rapid and far reaching than today. With the Internet of Things, devices exchange information with each other independently—in medical engineering, traffic systems and buildings. The environment is changing for manufacturing companies too. We are currently experiencing the fourth industrial revolution, towards network solutions. This means that the key qualifications required are also changing. Initial experiences show that companies are especially successful in introducing Industry 4.0 if they prepare employees at all levels for the changes in a targeted manner with suitable training and further education measures. Similarly, technical vocational colleges and universities are adjusting to the new Industry 4.0 trend, and are integrating related learning content into their educational programs.

Today, consumers can compare various global suppliers and their prices over the Internet like never before. At the same time, there is a trend towards individualized products. Consumers are configuring products individually, from cars, to furniture, to specially configured industrial products.

With Industry 4.0 manufacturing companies must aim to meet the following challenges:
- factories are capable of manufacturing small batches or even individual items for a similar cost to a large batch run;
In addition to providing practical training and further education within the company, the mMS 4.0 training system is being used in various educational institutions, such as universities. For example, Baden-Wuerttemberg Cooperative State University (DHBW) in Mosbach, Germany, has set up the „Digital Factory“ training lab with the mMS 4.0 training system as an important element. The Digital Factory forms a complete value stream from order entry in an ERP system, through a Manufacturing Execution System (MES) that controls production steps, right up to warehouse management. With this system, the university is qualifying practically-oriented engineers for industrial companies. Through the training system, students learn how to complete work across different functions, which will become normal practice in the networked factory.

The mMS 4.0 training system illustrates almost all facets of Industry 4.0 with industrial components. The software for the controls is available for subsequent additions and technological updates. Moreover, it supports all current valid real time Ethernet protocols, thereby providing long term availability for the future. With its modular training units, companies and educational institutions are preparing learners in a targeted way for the necessary key qualifications for Industry 4.0.
Highly Qualified German & Egyptian Academic Staff

TEACHING IN ENGLISH

FACULTIES & SPECIALIZATIONS

. : ENGINEERING
• Information Engineering & Technology
• Media Engineering & Technology
• Engineering & Materials Science
• Architecture Engineering
• Civil Engineering

. : BIOLOGICAL SCIENCES
• Pharmacy & Biotechnology

. : MANAGEMENT
• Business Informatics
• Technology-based Management
• General Management

. : DESIGN PROGRAM
• Product, Design Graphic & Multimedia

. : PROGRAM OF LAW AND LEGAL STUDIES

Under the Patronage of & in Cooperation with:
• Ministry of Higher Education, Egypt • University of Ulm • University of Stuttgart • University of Mannheim • University of Tuebingen
• Federal Ministry of Education & Research, Germany • Ministry of Science, Research & the Arts Baden-Wuerttemberg, Germany
• German Embassy in Cairo • Academy of Visual Arts - Leipzig • DAAD (German Academic Exchange Service)

Campus address: New Cairo City, Egypt • Postal Code 11835 • Hotline: 16482 • tel.: +20 2 2758 9990-8 • fax: +20 2 2758 1041

www.guc.edu.eg
Cooperation in Higher Education
GUtech—The Sole German University of Technology in the Gulf Region

GUtech

GUtech is the sole German University of Technology in the Gulf region and affiliated with RWTH Aachen University, one of the leading universities of technology in Europe, with study-programs in Engineering, Computer Science, Geosciences, Urban Planning and Architectural Design, Logistics, and International Business.

Since 2012 a total of 199 students have graduated from the university. During the summer semester this year 1,262 students were studying at GUtech in the Foundation Year Program and in five BSc and three BEng programs. 75% of the students were female. “The first pillar of GUtech’s educational approach is that we educate students to be independent, self-reliant and at the same time flexible to work in a multicultural environment,” said Prof. Dr. Michael Modigell, Rector of GUtech. All GUtech programs are unique and tailor-made for Oman and the region. For the first time students graduated from the Bachelor of Engineering programs in Mechanical Engineering and in Process Engineering in 2015. The majority of GUtech graduates have found positions in the government and in the private sector, for example, with Petroleum Development Oman (PDO), Schlumberger, Oman Oil, PetroGas Rima, Dar Al Handasah, Bank Muscat, Muriya Tourism Development, or Al Bustan Palace Hotel. Others are pursuing MSc degrees abroad. “GUtech has been a life changing experience. Given the possibilities for studying abroad, I am grateful to GUtech. Without the support of the university and especially my professors in Engineering and Mathematics it would have
MBA Renewables: Preparing Professionals for the Renewable Energy and Energy Efficiency Sectors

Beuth University of Applied Sciences & Renewables Academy AG (RENAC)

The Master of Business Administration (MBA) Renewables is an international distance learning program to obtain a Master of Business Administration degree focusing on renewable energy and energy efficiency.

For the past years, the renewable energy markets have been experiencing an increasing growth at a global level. In its Renewable Energy and Jobs—Annual Review 2016, the International Renewable Energy Agency (IRENA) estimates that 8.1 million people worked directly or indirectly in renewable energy in 2014, 5% more than in the previous year. The Arab regions in particular enjoy abundant renewable energy resources. Many Arab governments have committed to ambitious renewable energy targets, created public investment instruments and are developing suitable policy frameworks for the successful deployment of the renewable energy technologies and energy efficiency. This positive trend translates into an increasing job demand and growing capacity needs in these countries. In this scenario, professionals with modern and advanced skills in management will have access to exceptional opportunities in the green markets.
The “Magellan MBA” Experience in Germany

GISMA Business School in Hanover, Germany

Magellan was a famous Portuguese explorer, and the first European, to sail across the Pacific Ocean, and thus, circumnavigate the world. In search for fame and fortune, Magellan initiated this mission in 1519 and today, is recognized by some as the “Father of Globalisation”. How do we connect Magellan to education?

The importance of globalization is more evident today, as it entails a competitive and diverse regional and international market. Almost all businesses have to prepare themselves for the increase of globalization in their respective sectors, and as a result, have to ensure that leadership within their businesses adapt to this continuous global change. Thus, we understand the need of international, adaptable, and intercultural business leaders, who meet the demands of international businesses today and in the future. Therefore, we would like to invite you to start our new program, the “Magellan MBA”, in cooperation with Porto Business School (PBS).

The Magellan MBA fast-tracks professionals to enhance their career opportunities in management with a strong international perspective. This program is AMBA (Association of MBAs) and EFMD (European Foundation for Management Development) accredited. In addition PBS has also been ranked consistently among the top schools in Portugal and in Europe by the Financial Times.

The Magellan MBA will be offered full-time over 14 months and will give students the opportunity to also attend international universities in either Asia or the USA for a week of studies. This will help students under-
Research and Development
AGYA Receives 4 Million Euros in Funding for Research Projects That Go Beyond Disciplinary Limitations

The Arab-German Young Academy of Sciences and Humanities (AGYA)

Migration and transnational cooperation, the internationalization of education, innovation, finite resources, as well as the protection of cultural heritage — these are issues of mutual interest for the Arab world and Germany. The Arab-German Young Academy of Sciences and Humanities (AGYA) brings together outstanding young scholars from the Arab world and Germany, who develop and implement joint interdisciplinary research projects and initiatives at the interface of science and society.

A milestone in Arab-German research collaboration

In light of present international challenges, Arab and German researchers have to intensify their cooperation and enhance their capacity to actively engage in today’s interconnected world. “It is our duty to intensify the scientific dialogue between Germany and the Arab world given the current political developments and challenges in North Africa and the Middle East which have a direct impact on Germany and Europe,” says Federal Minister of Education and Research Prof. Dr. Johanna Wanka. The Arab-German Young Academy of Sciences and Humanities (AGYA) has been granted
Special Topics
Executive education is one of the growing sectors in the Middle East. The demand is significant and the number of educational institutes and executive training providers is increasing on the market. This is valid for most of the countries in the region, including the Kingdom of Saudi Arabia. Based on this general trend and our experience in developing strategy and performance management systems, the Management Excellence Program (MEX) has been developed in partnership with a Saudi and a German educational institute. The main mission of the MEX program is to enhance management capabilities and leadership network in the Kingdom, and to support Saudi Arabia’s international competitiveness and transformation by providing leaders with best-in-class knowledge and practical experience.

As environmental challenges occur, strategies or other key factors change, organizations have to adapt to them and change accordingly. For managers and leaders across the world, the key question is how to keep up in a vastly changing landscape. This is even more noticeable in the Middle East, where the pace and frequency of changes are definitely above average, as a result of the continuous developments and transformation in the region. As an illustrative example the Kingdom of Saudi Arabia, one of the leading economies in the GCC, has announced its vision for the next 15 years. This “Vision 2030” emphasizes prosperity, learning for working, effectiveness and efficiency as several of the country’s key values of the future. Moreover, the vision also places special focus on talent development, education and human capital development at the same time (Saudi Gazette, 2016). These initiatives are themselves very important activating factors of executive education and leadership development, but to implement such an ambitious vision and the related projects and programs in general, the Kingdom needs well prepared, motivated and experienced leaders and managers. Besides the general trends in the executive educational sector in the Middle East, the needs of the Saudi Vision 2030 have acted as a key trigger for developing an executive educational program, the Management Excellence Program (MEX). The MEX program is focusing on the necessary management capabilities of the Kingdom and offered in a collaboration with Alfaisal University (Saudi Arabia), EBS Executive Education (Germany), as well as Horváth & Partners Middle East and Horváth Academy (Germany).

Executive education: a growing sector in the Middle East

Business leaders have to develop their and their workforce’s skills to constantly meet the challenges and demands of the changing global and regional marketplace. This is even more prevalent in the Middle East, as the following points and sample research results of Van Dijk illustrate (see his article in the November 5, 2015 issue of The Edge):

- In a comprehensive market research, 70% of the CEOs expressed their concern about the recent availability of key skills, and 72% ranked developing skilled leadership and workforce as the top priority in the next years.

- The rapidly evolving and diversifying economies in the Middle East places immense importance on vocational executive and business education. As a CEO of a leading financial company in the region emphasizes, with that executive and post-experience education play a vital role in maintaining competitive and world-class skills, as key factors of success.

- Another study shows the clear demand for customized training, designed for organizations from both private and public sector. This is connected, for instance, to the Saudi ‘Vision 2030’, which emphasizes the importance of human capital development and learning for work,
Nurturing Future Talent

Siemens Middle East and UAE

Education and training are crucial to preparing the next generation of innovators in the UAE and Qatar. As a global company that has been present in the Middle East for almost 160 years, Siemens is doing its share of knowledge transfer in the region through various programs, such as the UAE Youth Ambassadors Program.

Technological innovations are becoming increasingly important in our rapidly changing world. Companies are under more pressure to innovate than ever before, with competition and technology start-ups springing up in the most unlikely places, challenging the status quo.

Oil-rich countries such as the United Arab Emirates and Qatar have realized that the key to their future success is building knowledge-based economies capable of functioning long after hydrocarbon resources run out. However, innovation is not developed in a vacuum. It starts from creating an ecosystem at primary schools to nurture a love of science and mathematics among children. It continues through to colleges and universities that provide the advanced training and opportunities for aspiring innovators to reach their aspirations.

The importance of a vibrant educational system

As an international brand focusing on innovation in electrification, automation and digitalization, Siemens understands the importance of these critical components of the innovation ecosystem. Without a vibrant and relevant edu-
Saudi Arabia is determined to build a thriving economy in which all of its citizens can fulfill their aspirations, hopes and ambitions. Vision 2030 is providing the momentum to propel the nation towards a new era of prosperity. The government is working side-by-side with the private sector as they jointly pursue initiatives with respect to education, training, infrastructure, and healthcare.

The imperative for education and training

With nearly a quarter of Saudi Arabia’s national budget allocated to education and training, the government is equipping its youth with the required skills to address the needs of the market. The Kingdom’s youth are “significant assets” and a huge effort is therefore underway to develop their skills and create employment opportunities in priority sectors. This includes women who make up more than half of Saudi university graduates and are a largely untapped talent pool.

Many countries are grappling with aging populations. Saudi Arabia, however, is blessed with a different demographic trend – more than half of the population is under the age of 25, a trend that the Saudi government is cap-
Competence from Germany in Vocational Training and Education

Didacta – Association of the German Education Industry

There is no longer any doubt that a country’s wealth is dependent on its industrial and economic development. But we also know for sure that a country’s industrial and economic development presupposes education and above all continuous vocational and advanced further training.

Vocational training and education in Germany

Today, Germany’s high level of prosperity and excellent economic position are an example for the “return on investment” it has achieved in general education and specifically in vocational training. Germany enjoys a long tradition of vocational training in the manual trades and crafts as well as engineering, and continues to adapt and develop its institutions to the latest economic and industrial demands.

The driving force of this went beyond technology per se to also include in particular the evolution of teaching concepts and didactic methods which have been necessary to convey the ever more complex information and skill required to perform one’s profession successfully and efficiently.

German manufacturers guarantee competence, quality and technology transfer

The systems from successful German vendors orient themselves strictly by the requirements set forth by the industry, the trades and business. These requirements are stipulated and updated constantly in syllabuses and training objectives by the industry and the chambers of commerce and trade (IHK/HWK) and the ministries of education in the individual federal states as well as the Federal Institute for Vocational Training and Education (BIBB).

On the basis of the results of this proven specialization, German companies develop and produce training systems and equipment to meet the highest standards. We think and work in a dual system which combines theory with practice in conveying the skills necessary for working competently, while at the same time ensuring technology transfer by integrating industrial components into these very systems.

Infrastructure, hardware, teachware, and train-the-trainer seminars form a complete concept that is combined with PC-based multimedia for what is now an efficient and indispensable learning solution that includes measurements, evaluations and learning feedback.
Ghorfa

BUILDING BRIDGES BETWEEN GERMANY AND THE ARAB WORLD
About us

The Ghorfa Arab-German Chamber of Commerce and Industry is the competence center for business relations between Germany and the Arab world. It was founded in 1976 and since 1 August 2000, it is located in Berlin. The Board of Directors and the Executive Board equally consist of German and Arab members. This guarantees balance and mutual trust. Not only major German and Arab enterprises are among our members, numerous small and medium-sized enterprises complete our topclass network.

Our network

The Ghorfa operates under the umbrella of the Union of Arab Chambers and represents all Arab Chambers of Commerce and Industry in Germany. Our chamber works closely with the Arab embassies in Germany, the Arab League, and related governmental bodies in Arab states. It is part of the worldwide organisation of Arab-Foreign Chambers of Commerce and Industry. The Ghorfa cooperates with German governmental bodies on federal and regional levels, as well as the most important German industrial associations.
What we do

We actively promote and strengthen business relationships among our members and within the wider Arab and German business community. We pave the way for stronger business cooperation in the fields of trade, industry, finance and investment between Arab and German business partners. Strategic partnerships based on mutual benefit and understanding create new business opportunities to facilitate economic benefits for both sides. We therefore mainly focus on networking, communication and on providing information about relevant economic and industrial developments.

Building Bridges between Germany and the Arab World

Networking

- Quick access to decision-makers from industry and politics
- Organisation of delegation visits
- Organisation of events, conferences and further contact platforms (e.g. German-Arab Business, Energy, Tourism, Health, Education and Vocational Training, Forum)
- Ghorfa joint booths at major Arab and German trade fairs
- Promoting member services and products to a wider business community

Consulting

- Connecting with matching business partners
- General and business-related intercultural consulting
- Country and branch specific analysis
- Mediation and arbitration in cases of business disputes
- Advice and guidance through the multitude of offers and competing products on the German and Arab market
- Comprehensive and detailed market information about Germany and the 22 Arab states
- Visa support and commercial document services
Information

- Early information about projects and tenders
- Monthly issued Arabic and German newsletters
- Quarterly bilingual business magazine SOUQ
- Arab-German Business Directory providing over 6,000 yearly updated company profiles
- Arab-German Yearbooks that focus on industry-sector specific topics
- Information on the latest economic developments, markets and sectors, legal and political background

We welcome you to become part of the high-level network that we provide for professionals and business leaders from the Arab world and Germany. Join us and share our vision of prospering Arab-German business relations. For further information concerning membership in our chamber please contact us:

Ghorfa
Arab-German Chamber of Commerce and Industry e. V.
Garnisonkirchplatz 1, 10178 Berlin, Germany
Phone: +49 30 278907 – 0 | Fax: +49 30 278907 – 49
ghorfa@ghorfa.de | www.ghorfa.de
CONTRIBUTING COMPANIES AND INSTITUTIONS
A2S is a well-known German enterprise specialized in the outfitting line for educational establishments. Their specialization on design, safety and quality corresponds with the high special requirements. Their stock of machineries with a very high working-power and efficiency, as well as their specially trained staff meet all challenges and the high requirements.

Customers’ advantages:
- leading competence in consultancy and planning
- active support to develop the perfect individual solution
- photo-realistic images of the planned rooms are possible
- cost-efficient solutions for on-site assembling
- guaranteed availability of all spare parts

A2S exports to Europe (e.g. Netherlands, Norway, Finland, Sweden, Switzerland, Belgium, Luxembourg, UK, Austria, France, Spain, Italy, Turkey, a.o.) and worldwide (e.g. USA, Mexico, Saudi Arabia, United Arab Emirates, Bahrain, Qatar, Kuwait, Libya, Iraq, Yemen, Oman, Colombia, Bolivia, South America, China, South Africa, a.o.).

All products are guaranteed by registered patterns and patents of various kinds. One of the inventions of A2S is PAGHOLZ®. Thin layers of veneer are elaborately prepared for PAGHOLZ®, then dried and soaked in resin. After that they are pressed into the desired shape under application of heat with up to 2,000 tons of pressure.

PAGHOLZ® provides the natural appearance of solid wood and much more:
- keeps its shape beautifully
- high level of scratch- and wear resistance
- resistant against breaking and impacts
- stain- and abrasion-resistant
- lightfast and chemically stable

This means: an easy to clean and inflammable, self-extinguishing material that can even be weather-proofed with special resins. ALL PAGHOLZ® products are especially durable and recyclable.
NAWIS® enables teachers to have theory lectures, experiments demonstration and pupils’ experiments within the same room. The ceiling system allows flexible positioning of pupil tables for lectures, group work, experimenting, and IT-evaluating of results. Thus, the pupils’ experiments become the central learning experience — and transform your school into the most competitive learning site.

**Some references:**

**Sharjah American International School (SAIS) ABU DHABI (2015):**
Chemistry teaching lab in SAIS with MediaLift ceiling system. The school principal is very much happy with the new multifunctional school lab installed in 2015. The school has created excellent learning environments in order to address the different learning styles of pupils, well knowing that pupils remember best what they have done and discovered themselves.

**German School Dubai (2015):**
3 labs for chemistry, biology and physics
The MediaLift ceiling system can be moved easily. After 9 years of usage in the old school building, the system and all furnishing was moved and re-installed in the newly built school. The long durability of the system will allow the school to work with it some further decades. The school is extremely happy with the new installation. It allows the school to develop even further into latest teaching standards and to achieve the best learning results for their pupils.

The FlexLearn concept transforms areas into learning environments allowing all didactic learning forms, like chair circle, individual studies, group work, and lecture, but also Flipped Classroom concepts.

Hohenloher Spezialmöbelwerk Schaffitzel GmbH + Co. KG
International Business
Anton-Waldner-Straße 10-16,
88239 Wangen im Allgäu, Germany
Tel: +49 (0) 75 22/986-504 | Fax: +49 (0) 75 22/986-526
ib@hohenloher.de | www.hohenloher.com

Contact: Bilal Al Mokaddem, Area Sales Manager Middle East
Phone: +49 (0) 1515 871 - 7322 | Mobile: +49 (0) 75 22 / 986 – 8918
E-Mail: bilal.almokaddem@hohenloher.de

**Overview:**
Hohenloher supports education institutions worldwide with flexible learning environments in order to give schools a learning and competitive advantage. It is the leading solutions supplier for science-, technical- and general classrooms. Customers benefit from the global group competencies of the Waldner group. The flexible learning environments allow teachers to become a moderator, activate pupils and enable a more effective learning.

The comprehensive solutions are intuitive, preventing teachers from failing in front of the class but strengthening their position. All products reduce complexity for the construction site drastically and meet highest safety standards. The broad portfolio of ceiling systems for school labs, science and technical classes is unique, worldwide.

NAWIS® - The flexible learning laboratory

The FlexLearn concept transforms areas into learning environments allowing all didactic learning forms, like chair circle, individual studies, group work, and lecture, but also Flipped Classroom concepts.

German School Dubai (2015):
3 labs for chemistry, biology and physics
The MediaLift ceiling system can be moved easily. After 9 years of usage in the old school building, the system and all furnishing was moved and re-installed in the newly built school. The long durability of the system will allow the school to work with it some further decades. The school is extremely happy with the new installation. It allows the school to develop even further into latest teaching standards and to achieve the best learning results for their pupils.

**Year of foundation:** 1879
**Employees (group):** 1,350, with ca. 200 education specialists
**Production Facilities:** Made in Germany, with 3 production sites (Ohringen, Wangen im Allgäu, Ilmenau)
**Products:** Hohenloher provides innovative, complete solutions for educational institutions around the world from a single source. Their product systems stand for high quality, ergonomic flexibility and promote pioneering didactics.
The aim of AGYA is to promote Arab-German research cooperation based on the idea of scientific excellence and social commitment of early career scholars (3–10 years post-PhD). The current 25 Arab and 25 German members are distinguished researchers from various fields of the Humanities, Natural, Life, Technical, and Social Sciences. AGYA supports their interdisciplinary research projects and promotes them as ambassadors of sciences and culture.

**Arab-German Young Academy of Sciences and Humanities (AGYA)**

**Project:** AGYA Receives 4 Million Euros in Funding for Research Projects That Go Beyond Disciplinary Limitations

**Contact:** Dr. Sabine Dorpmüller, German Managing Director

**Arab-German Young Academy of Sciences and Humanities (AGYA)**

AGYA at the Berlin-Brandenburg Academy of Sciences and Humanities
Jägerstr. 22-23, 10117 Berlin, Germany | Phone +49 30 203 70 669
agya@bbaw.de (Arabic speaking) | Twitter: @AGYA_events | www.agya.info

AGYA at the American University Beirut
P.O. Box 11-0236 | Beirut 1107 2020, Lebanon | Phone +961 135 3858
aei01@mail.aub.edu

**Bosch Rexroth AG**

As a member of the Bosch Group, with over 270 production plants located all over the world, Rexroth knows from its own experience the current needs for efficient training. Under the umbrella of Drive & Control Academy, Bosch Rexroth offers an extensive portfolio of knowledge products. The training systems allow extensive training in hydraulics, pneumatics and automation. Rexroth also provides comprehensive teaching and learning media.

**Project:** Industry 4.0: Preparing technical specialists for the future today

**Contact:** Ruediger Walther

**Didacta – Association of the German Education Industry**

Didacta represents the interests of the German education industry and promotes the application of high-quality teaching and learning aids, furnishings and equipment designed to meet the unique needs of all learning environments. Didacta joins hands with associations and organizations, political bodies, educational facilities, and the media in order to promote the German education industry worldwide.

**Project:** Competence from Germany in Vocational Training and Education

**Contact:** Reinhard Koslitz, CEO

**GISMA Business School**

Successfully combining theory with practice, GISMA fills the gap between conventional university studies and the shifting requirements of today’s global marketplace. GISMA’s graduates have aspired to such sectors as: banking, financial services, engineering, mechanical engineering, oil and gas, information technology, consulting, and business services.

**Project:** The “Magellan MBA” experience in Germany

**Contact:** Sarah Holze, Programme Consultant

**GISMA Business School GmbH**

Goethestr. 18
30169 Hannover, Germany
Phone: +49 511 54609-27 (Sarah Holze)
Phone: +49 511 54609-29 (Hasan Syed)
E-mail: sholze@gisma.com | hsyed@gisma.com
www.gisma.com
The German University of Technology in Oman (GUtech) is affiliated with RWTH Aachen University in Germany. Founded in December 2006 in Muscat, the university is the sole German university of technology in the Gulf region. In summer 2016 a total of 1,262 students have been studying at GUtech and 180 international staff have been working at GUtech. The university currently offers five BSc and three BEng programs. MSc and PhD programs are planned.

**Project:** GUtech—German University of Technology in Oman  
**Contact:** Manuela Gutberlet, PR Manager

---

Horváth & Partners Management Consultants

Horváth & Partners is a Germany based international management consulting firm specialized in strategy execution and corporate performance management. The company has more than 650 consultants worldwide and regional offices in Abu Dhabi, Riyadh and Jeddah. With its close connections to research and science, Horváth & Partners has founded Horváth Academy to provide best-in-class seminars, conferences and in-house training programs, and further develop thought leadership. As a result of its network, the company has access to more than 270 partner universities worldwide.

**Project:** Partnership in executive education in the Middle East — The Management Excellence Program  
**Contact:** Tobias Kern, Managing Director Horváth & Partner Middle East GmbH

---

iMOVE at the Federal Institute for Vocational Education and Training (BIBB)

iMOVE is an initiative of the German Federal Ministry of Education and Research to promote and facilitate global business and cooperation between German training providers and international public and private organizations. iMOVE provides collaboration opportunities and helps to establish contacts with high-ranking officials and individuals from the education sector.

**Project:** Skilled Worker Development for Industry 4.0  
**Contact:** Ulrich Meinecke, Head of Division iMOVE at the BIBB

---

KWS PowerTech Training Center

Founded in 1957, KWS PowerTech Training Center (KRAFTWERKS-SCHULE E.V. in German) is Germany’s leading vocational training institution for the power industry. In keeping with its purpose of always providing state-of-the-art power plant personnel training for its clients from around the world, the school’s training contents, tools and methods constantly evolve both in scope, depth and volume.

**Project:** Siemens and KWS collaborate to train Egyptian power plant personnel  
**Contact:** Uwe Möller, Senior Project Manager (International Activities)

---
For more than 40 years the Lucas-Nülle company has stood for the development, manufacture and marketing of high-quality, state-of-the-art training systems and education equipment for further and advanced technical, engineering and vocational education. In addition to course offerings covering a wide range of basic theoretical material, project-oriented and didactic training receives special focus.

**Lucas-Nülle GmbH**

**Project:** Modern vocational education: interactive technical qualifications from the cloud  

**Contact:** Christoph Müssener, Managing Director  

**Lucas-Nülle GmbH**  
Siemensstr. 2 | 50170 Kerpen | Germany  
Phone: +49 2273 567-0 | info@lucas-nuelle.com | www.lucas-nuelle.com  

**Lucas-Nülle Middle East**  
Dubai Silicon Oasis | HQ Building, A-Wing Office No. 503 | Dubai  
Phone: +971 4 5015639 | staab@ln-me.com | www.lucas-nuelle.ae

---

For more than 40 years the Lucas-Nülle company has stood for the development, manufacture and marketing of high-quality, state-of-the-art training systems and education equipment for further and advanced technical, engineering and vocational education. In addition to course offerings covering a wide range of basic theoretical material, project-oriented and didactic training receives special focus.

**Lucas-Nülle GmbH**

**Project:** Modern vocational education: interactive technical qualifications from the cloud  

**Contact:** Christoph Müssener, Managing Director  

**Lucas-Nülle GmbH**  
Siemensstr. 2 | 50170 Kerpen | Germany  
Phone: +49 2273 567-0 | info@lucas-nuelle.com | www.lucas-nuelle.com  

**Lucas-Nülle Middle East**  
Dubai Silicon Oasis | HQ Building, A-Wing Office No. 503 | Dubai  
Phone: +971 4 5015639 | staab@ln-me.com | www.lucas-nuelle.ae

---

Beuth University of Applied Sciences Berlin offers the widest range of courses in applied engineering, applied sciences and applied economics. The high quality of the courses is reflected in the numerous prizes awarded for excellent degree results. RENAC, a globally operating expert on training for renewable energies and energy efficiency, serves as a bridge between students and the industry.

**Beuth Hochschule für Technik Berlin University of Applied Sciences & Renewables Academy AG (RENAC)**

**Project:** MBA Renewables: preparing professionals for the renewable energy and energy efficiency sectors  

**Contact:** Alina Schneider, Study Program Coordinator  

**Beuth Hochschule für Technik Berlin University of Applied Sciences**  
Luxemburger Str. 10 | 13353 Berlin | Germany  
Phone +49 30 4504 5036  
a.schneider@beuth-hochschule.de | www.beuth-hochschule.de/fernstudium  

**Renewables Academy AG (RENAC)**  
Schönhauser Allee 10–11 | 10119 Berlin | Germany  
www.renac.de | www.mba-renewables.de

---

Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 165 years. The company is active in more than 200 countries, focusing on the areas of electrification, automation and digitalization. One of the world’s largest producers of energy-efficient, resource-saving technologies, Siemens is No. 1 in offshore wind turbine construction, a leading supplier of gas and steam turbines for power generation, a major provider of power transmission solutions and a pioneer in infrastructure solutions as well as automation, drive and software solutions for industry. The company is also a leading provider of medical imaging equipment – such as computed tomography and magnetic resonance imaging systems – and a leader in laboratory diagnostics as well as clinical IT. In fiscal 2015, which ended on September 30, 2015, Siemens generated revenue of €75.6 billion and net income of €7.4 billion. At the end of September 2015, the company had around 348,000 employees worldwide.

**Siemens AG**

**Project:** Training Egyptians: creating value for society through knowledge transfer  

**Contact:** Ahmed El Saadany, Learning Manager  

**Siemens Egypt**  
Bureau 175, 2nd Business Sector, Al-Horreya axis  
90 South Road, 5th Settlement | PO Box: 245/11835 - New Cairo Egypt | Hotline:16610 | Website: www.siemens.com.eg

---

Being active in the Kingdom for over 85 years and with more than 2,000 employees, Siemens delivers innovative solutions to its customers, partners and society. We contribute significantly to develop the country’s infrastructure. Together with our shareholder and long-term partner, E.A. Juffali and Brothers, we will carry on with our commitment and contribution to the development of Saudi Arabia. We make real what matters. That is our aspiration and what sets us apart. It reflects our strong brand and inspires us to succeed.

**Siemens AG**

**Project:** Nurturing future talent  

**Contact:** Dietmar Siersdorfer, CEO, Siemens Middle East and UAE  

**Siemens Middle East and UAE**  
Masdar City, Abu Dhabi, 47015  
telephone number +971 2 616 5100 | www.siemens.ae

---

**Project:** Saudi Arabia’s Vision 2030: Building partnerships to enhance education and training  

**Contact:** Marvin Benjamin, Designation: Manager – Internal and External Communications  

**Siemens Limited Saudi Arabia**  
Airport Road, Business Gate C1  
Qurtubah District, Riyadh  
P.O. Box 9510, Riyadh, 11423  
Phone: +966 2 277 9260 | Mobile: +966 54 439 1543  
E-mail: marvin.benjamin@siemens.com | www.siemens.com.sa

---

**Lucas-Nülle GmbH**

**Project:** Modern vocational education: interactive technical qualifications from the cloud  

**Contact:** Christoph Müssener, Managing Director  

**Lucas-Nülle GmbH**  
Siemensstr. 2 | 50170 Kerpen | Germany  
Phone: +49 2273 567-0 | info@lucas-nuelle.com | www.lucas-nuelle.com  

**Lucas-Nülle Middle East**  
Dubai Silicon Oasis | HQ Building, A-Wing Office No. 503 | Dubai  
Phone: +971 4 5015639 | staab@ln-me.com | www.lucas-nuelle.ae

---

Beuth University of Applied Sciences Berlin offers the widest range of courses in applied engineering, applied sciences and applied economics. The high quality of the courses is reflected in the numerous prizes awarded for excellent degree results. RENAC, a globally operating expert on training for renewable energies and energy efficiency, serves as a bridge between students and the industry.

**Beuth Hochschule für Technik Berlin University of Applied Sciences & Renewables Academy AG (RENAC)**

**Project:** MBA Renewables: preparing professionals for the renewable energy and energy efficiency sectors  

**Contact:** Alina Schneider, Study Program Coordinator  

**Beuth Hochschule für Technik Berlin University of Applied Sciences**  
Luxemburger Str. 10 | 13353 Berlin | Germany  
Phone +49 30 4504 5036  
a.schneider@beuth-hochschule.de | www.beuth-hochschule.de/fernstudium  

**Renewables Academy AG (RENAC)**  
Schönhauser Allee 10–11 | 10119 Berlin | Germany  
www.renac.de | www.mba-renewables.de

---

Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 165 years. The company is active in more than 200 countries, focusing on the areas of electrification, automation and digitalization. One of the world’s largest producers of energy-efficient, resource-saving technologies, Siemens is No. 1 in offshore wind turbine construction, a leading supplier of gas and steam turbines for power generation, a major provider of power transmission solutions and a pioneer in infrastructure solutions as well as automation, drive and software solutions for industry. The company is also a leading provider of medical imaging equipment – such as computed tomography and magnetic resonance imaging systems – and a leader in laboratory diagnostics as well as clinical IT. In fiscal 2015, which ended on September 30, 2015, Siemens generated revenue of €75.6 billion and net income of €7.4 billion. At the end of September 2015, the company had around 348,000 employees worldwide.

**Siemens AG**

**Project:** Training Egyptians: creating value for society through knowledge transfer  

**Contact:** Ahmed El Saadany, Learning Manager  

**Siemens Egypt**  
Bureau 175, 2nd Business Sector, Al-Horreya axis  
90 South Road, 5th Settlement | PO Box: 245/11835 - New Cairo Egypt | Hotline:16610 | Website: www.siemens.com.eg

---

Being active in the Kingdom for over 85 years and with more than 2,000 employees, Siemens delivers innovative solutions to its customers, partners and society. We contribute significantly to develop the country’s infrastructure. Together with our shareholder and long-term partner, E.A. Juffali and Brothers, we will carry on with our commitment and contribution to the development of Saudi Arabia. We make real what matters. That is our aspiration and what sets us apart. It reflects our strong brand and inspires us to succeed.

**Siemens AG**

**Project:** Nurturing future talent  

**Contact:** Dietmar Siersdorfer, CEO, Siemens Middle East and UAE  

**Siemens Middle East and UAE**  
Masdar City, Abu Dhabi, 47015  
telephone number +971 2 616 5100 | www.siemens.ae

---

**Project:** Saudi Arabia’s Vision 2030: Building partnerships to enhance education and training  

**Contact:** Marvin Benjamin, Designation: Manager – Internal and External Communications  

**Siemens Limited Saudi Arabia**  
Airport Road, Business Gate C1  
Qurtubah District, Riyadh  
P.O. Box 9510, Riyadh, 11423  
Phone: +966 2 277 9260 | Mobile: +966 54 439 1543  
E-mail: marvin.benjamin@siemens.com | www.siemens.com.sa

---
Simson Private Akademie

Since the founding of the Simson Private Akademie in 1991, they offer vocational training in the field of metal processing. Practice-oriented training on highest level is their trademark. Continuously updated courses are customized for local and international clients. A special feature is their integrated training center for welding. The training is oriented towards the demands of the economy.

Project: Creating sustainability—successful UAE-German training cooperation

Contact: Max Reumschüssel, Project Manager

SPA GmbH
Simson Private Akademie
Pfütschbergstr. 6
98527 Suhl / Thuringen
Phone: +49 3681 722574
Fax: +49 3681 723014
E-mail: info@spa-suhl-bildung.de
www.spa-bildung.de

40 Years Supporting Arab-German Business Cooperation

Networking
Consulting
Information

www.ghorfa.de
Are You Looking for German Expertise in Vocational Education and Training?

Find your German training partner in the iMOVE Provider Pool

imove-germany.de/provider-database

or post your request in our B2B Marketplace

imove-germany.de/b2b-marketplace