## Engineering Profession Practice and Education In Jordan

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### INTRODUCTION

Jordan Engineers Association (JEA) was established in 1953 as "engineer's society" to organize the services of few hundreds of engineers. Today, JEA is proud to have more than 174,000 members from all engineering disciplines operating in different regions of the world with a varied wide global experience.

Jordan Engineers Associa

### **JEA OBJECTIVES**

- Organization of the profession's practices in such manner as will raise its scientific and professional standing and exploit any accruing benefits for economic, civic, and national advancement.
- Defend the members' interests and dignity and uphold the profession's ethics and honour.
- Promote the scientific and professional standing of engineers and activate and support research in the science of engineering.
- Participate in planning and developing educational and training programs in engineering, industry, and vocational trades and Endeavour to raise the proficiency of persons practicing engineering.

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### **JEA OBJECTIVES**

- Participate in studies of inter-Arab nature, and exchange with the Arab countries information, expertise, and publications covering engineering subjects.
- Provide a decent life to engineers and their families in the event of disability, old age, and other emergency cases.
- Make all possible endeavors to enable the Association to achieve its professional objectives.

#### **ENGINEERING DIVISIONS AND BRANCHES**

	Civil Engineering	Architecture Engineering	Mechanical Engineering	Electrical Engineering	Mining, Geology Engineering	Chemical Engineering
	Structural Engineering	Urban Planning	Thermal Engineering	Communication Engineering	Geological Engineering	Engineering of Food Industry Technology
	Water and Environment Engineering	Architecture Engineering	Machine Engineering	Computer Engineering	Petrol Engineering	Petroleum and Fuel Engineering
הומותובא	Roadway Engineering		Autotronics Engineering	Control Engineering	Mineral Engineering	Environmental Engineering and Industrial Safety
	Materials and Soil Engineering		Industrial Engineering	Renewable Energy		
	Surveying Engineering		Materials Engineering	Power Engineering		
				Mechatronics Engineering		
				Biomedical Engineering		

**Branches** 

#### **ENGINEERING DIVISIONS AND BRANCHES**

**Statistics** 



#### **ENGINEERING CONSULTANCY OFFICES**

#### **Statistics**



## **ENGINEERING CONSULTANCY OFFICES**

#### **Markets of Services**

- Northern Africa
- Southern Africa
- All Gulf Arab States
- Saudi Arabia
- Yemen
- Iraq
- Lebanon
- Syria
- Singapore
- Central Asia



ETC organizes several types of training courses which serve the engineering profession in view of the particular needs of Jordan and the Arab world. This is done in cooperation with the Engineering Divisions and Engineering Offices council at JEA.

Training courses can be classified under two categories:

- Specialized courses in the fields of: Civil Engineering, Architectural Engineering, Electrical Engineering, Mechanical Engineering, Chemical Engineering and Metallurgy and Mining.
- General Courses in Quality Management and Specifications, Marketing, Technical Writing, English Language, Engineering Management and Computing.

#### Accreditations

- Arab Federation of Engineers.
- Nominated center by Siemens in training Related to Programmable Logic Controllers (PLC) & Variable Speed Controllers (VSC).
- Institution of Electrical Engineers (IEE).
- Lloyds.
- Autodesk.
- FIDIC.

- Nominated Center by NACE in training related to steel corrosion courses.
- Accredited Center by Board of Certified Safety Professionals (BCSP) in safety certifications.

#### Accreditation

Many Arab Engineers form Sudan, Saudi Arabia, Iraq, Qater, Lybia and Palestine has joined the center to take many training Courses in Different Areas of Knowledge.

#### JEA INTERNSHIP& EMPLOYMENT PROGRAMS

- JEA's internship programs : for 6 months, JEA pays 50 JOD monthly only.
- JEA's internship program in cooperation with the ministry of Public Works and Housing : the ministry pays 120 JOD/month, JEA invests around 20,000 to 25,000 JOD annually in this program.

#### JEA EMPLOYMENT PROGRAMS

- Internship for employment purposes: in cooperation with the Ministry of Labor (for 6 months ends up with employment in the private sector), so far 800 opportunities were benefited from.
- Note: every year JEA provides job opportunities to 3,500 – 4,000 graduate engineer, and so the opportunities cover around 35% of the total number of the graduates in the same year.

#### **ENGINEERING EDUCATION IN JORDAN**

JEA is continuously coordinating with the Jordanian Universities to update their engineering study plans to provide the local and international market with specialized engineering competencies to cope with the scientific and technological developments.

Twenty-six Jordanian Universities offer engineering programs. Engineering education in Jordan is characterized by strong theoretical and practical content. Field training and graduation project are graduation requirements at all the Jordanian Engineering programs.

## LICENSING AND ACCREDITATION OF JORDANIAN ENGINEERING PROGRAMS

All engineering programs shall be licensed by the Jordanian Ministry of Higher Education (MOHE). Also, all engineering programs shall be accredited by the Accreditation and Quality Assurance Commission for Higher Education Institutes (ACACHEI). For all engineering programs, ACACHEI has criteria to accredit the programs; it includes the number of faculty members, laboratories, facilities, and the study plan. ACACHEI performs an annual audit on all programs. Some engineering programs are accredited by international bodies such the Accreditation Board for Engineering and Technology (ABET).

## BUSINESS OPPORTUNITIES AND COOPERATION MOUs with Global Engineering Associations related to exporting engineering services

- There is an MOU between the engineers association in Iraq and JEA, the purpose of this MOU is to facilitate the work of the Jordanian engineers and engineering consultancy offices in Iraq, and to treat them similar to the local ones.
- There is an MOU between the engineers association in Syria and JEA, the purpose of this MOU is to facilitate the work of the Jordanian engineers and engineering consultancy offices in Syria, and to treat them similar to the local ones.

## BUSINESS OPPORTUNITIES AND COOPERATION MOUs with Global Engineering Associations related to exporting engineering services

- There is an MOU between Infrastructure Construction Companies Association (ICCA) in Georgia and JEA, the purpose of this MOU is to cover ICCA need of mid level experience engineers from Jordan.
- Many companies from the following countries has direct contact with JEA to cover their need of engineers:

-Libya. -Saudi Arabia. -Qatar. -United Arab Emirates.

## BUSINESS OPPORTUNITIES AND COOPERATION Relationship with Germany

- JEA is implementing a project to teach German language to Jordanian engineers, with a scholarship of 50 % funded by the Jordanian Ministry of Labor.
- Through the Jordanian Ministry of Labor, JEA has contact with the German Federal Employment Agency, in order to employ Jordanian engineers in German companies, and meanwhile, there are some of Jordanian engineers being interviewed with them.

## BUSINESS OPPORTUNITIES AND COOPERATION Relationship with Germany

- During the language courses that are being taught to the engineers, a technical course for the engineering terminology in German is being taught also.
- The Language center employed by JEA for this project, is accredited as a test center by TELC.

## BUSINESS OPPORTUNITIES AND COOPERATION Relationship with Germany



#### **BUSINESS OPPORTUNITIES AND COOPERATION**

#### **Relationship with Germany**



# Thank You

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