# **Al-Karama Lab** for Engineering Tests

Accredited by Ministry of Planning Laboratories Accreditation Dept. Accreditation No. TL014





Vs&noad Maysan, Saladin
♦ +9647700798880
♦ www.krmlab.com
♦ info@krmlab.com
♦ karamalab@gmail.com
♦ @karamalab



# AboutUs

The lab. provides the engineering services in the field of testing, engineering consultancy and studies, planning and design, projects management and supervision, and providing the necessary employees, equipments and supplies.

The lab. provides all laboratory tests for the various construction, electrical and mechanical works, field tests of soil and survey works through a competent technical staff and sophisticated equipment.

The lab. has the ability to open a full field laboratories in any location to accomplish all kinds of tests and for any projects.

The lab. provides all engineering consultants, like civil, architectural, electrical, mechanical, air conditioning and refrigeration, health works, computer and internet systems, cameras and fire systems.

The lab. can start training courses in all engineering specialties and data processing for all levels.

The lab. provides consultants for industrial and government institutions to obtain ISO quality certification requirements.

#### The lab. vision for the engineering tests

We look at the priority and the urgent need to find more than a specialized hand in the field of examination and evaluation of different materials to help the constructional movement in Iraq, we were established as one of the main lab. accredited in the field of engineering tests and certified by the Central Organization for Standardization and Quality Control (COSQC) as the first lab. in Iraq with certificate (ISO 17025).

There are a specialized teams of engineers technicians with a good experience in the field of examination and evaluation of materials, this experience came s from their work in the lab. and institutions specialized in this field. The lab. works to expand his work through several branches in the governorates of Iraq, including:

The headquarter in Baghdad

Maysan branch

Saladin branch





# **Civil Tests**

### **Concrete & Building Units Tests**

Concrete unit design Concrete cubes & cylinders compression test Concrete core test Concrete slump test Cement test Grade test for soil and gravel Building units test (brick, block, thermostone) Tiles test (ground & roof tile, ceramic, granite) Sidewalk tiles test (curbstone, interlock bricks) Concrete column test Stair step test Natural stone test Finishing materials test (gypsum, etc) Evaluation test by Ultrasonic & Schmidt Hammer Chemical test for Cement contents Concrete mixture test

### Soil & Rock Tests

Geotechnical, soil investigations & classification Underground water level determination & test Grade test, lab. & location density test Liquid limit & plastic index test CBR test Chemical test for soil contents

# **Steel Sections Tests**

Steel sections test (L - T - H - U) Bolt test BRC test Steel plate test Alcobond test Sandwich panel test Alloy test Manhole cover test

# **Road & Asphalt Tests**

Asphalt mixture design Polymer felt test Mastic test Tar test Flancoat test Joints filler test Asphalt emulsion test (tancoat, braincoat, etc) Road in-site test

### **Pipes Tests**

Plastic pipes test (PVC - UPVC - CPVC - PPR) Ductile pipes test GRP pipes test Concrete pipes test Poison test for pipes

### **Chemical Tests**

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QUTEST

Materials analyze & test by X-Ray Water test Paint test

#### **Sheet Piles Tests**

Pri cast piles test Board piles test Sheet piles test

# **Electrical Tests**

Electrical stations test Power transformers test Transformers oil test Generators test Elevators test Cables test (LV & HV) Wires test (LV & HV) Circuit breaker test (LV & HV) Ceramic insulators test (LV & HV) Electrical engines test (AC & DC)



Switches, plugs & lights test Electric devices test Air-condition systems test Fire alarms systems test Earth systems test Lightening arrester systems test Surveillance systems test Internet & Network Systems test Control systems test Electrical boles & towers test



# **Mechanical Tests**

Occupational health test Instruments test Machines & tools test Cranes & lifts test Tanks test



Electrical Tests

# Mechanical Tests

Non-Destructive Tests

2001 Investigations

Consultancies

# NonDestructiveTests(NDT)

Penetrant liquid test Ultra-sonic test X-Ray test Magnetic particles test Minerals analyze test Welding test Visual evaluation test





**Design Idea** We focus on providing support to our customers in order to identify their needs and understand the requirements of the project in quality and quantity, taking into account the project budget, the nature of the site and the requirements of the regulations in force.

We use the best strategies to successfully develop customer requirements and prioritize them in a holistic manner, in order to develop preliminary plans based on the real needs of our customers.

We give a great attention to this stage in order to produce unique and exemplary designs that not only satisfy customer needs, but also exceed expectations and fully achieve the objectives set for them. Only in this way can we reach our clients with projects of high economic efficiency and perfect quality, Face high competition.

# Initial Designs

We have made our plans and strategies and doubled the incentives and rewards to provide all the conditions for our engineers and push them towards more creative designs. Due to the importance of designs and their role in the project outputs, we gave them special attention and made it an initial stage in which we receive and study all ideas. With typical or integrated designs based on a combination of the ideas of our skilled engineers.

We use all the abilities to present and analyze designs, including "D graphics, animation and prototypes, taking into account implementation costs as an important element within this design phase. After the initial design is adopted, the customer will be presented with feedback and suggestions for additions.

# **Developing Design**

After converting the customer's needs and requirements into preliminary designs that we develop into comprehensive detailed designs, at this stage we coordinate the work of structural engineers, electrical engineers and mechanics in order to prevent any conflicts between different systems. At the end of this stage we present a complete set of design drawings, technical specifications and detailed inventory. In quantities of work.

Our designs in runways take into account all construction regulations, safety instructions, public health maintenance, requirements of people with special needs and accessibility, in addition to respecting all laws and regulations in force.

# Supervision

# **Supervision**

This phase includes supervision of the management of the execution contract, including the delivery of the site to the contractor and the review of all the relevant documents, in addition to examining the works carried out on the site and ensuring that they conform to the designs and documents and reviewing the financial payments due to the contractor after the end of the work performed during each stage of the project.

We supervise all matters related to the health and safety conditions in the work site and ensure compliance with the relevant regulations and instructions. We also deal with all proposals as required by the official procedures in these cases, including the impact of cost and duration of implementation. Us within our agreement with the client.

At the end of implementation phase, we will be required to receive the owner of the project after the inspection and to ensure that the implementation of the project is completed to the extent that it is possible to benefit from it. In the absence of it or the existence of some defects we work to determine a period of time to complete it in agreement with the contractor and the project owner. It has also implemented operating manuals, catalogs and warranty certificates ... with a thorough review and evaluation of the project.



# **Project Management**

We take advantage of our long project management experience to help our clients make the right decisions at the right time. We believe that the late adjustments can only be achieved at great cost. We contribute our expertise and good management in driving and controlling decision making to take into account all aspects. Project simultaneously.

Our business scope includes management and decision-making on project performance, risk management, cost control and execution time. In addition, we will inform the client of any deviations in the project implementation process or its time schedule, recommend the best solutions to solve the defect, and provide the necessary support to the client during the contracting with consultants and contractors.

This service includes support in the management of the contracting program, including: preparation of invitations, evaluation of bids, negotiation of various consultancy services, contracts of contractors, follow-up changes and time extensions ... In addition, we support customers to build basic information management systems and provide valuable information to managers, Interests.



Consulting

1. Engineering consultancy, studies, designs and preparation of schedules of quantities.

2. Architectural designs (interior design, exterior design including gardens, swimming pools and finishing works).

3. Structural designs, repair works, maintenance, modification and expansion.

4. Water networks of all types.

5. Buildings and constructions chemical treatment according to advanced scientific methods.

6. Soil investigation, soil, foundations and structures testing of all types.

7. Preparation of organizational structures and forms for the maintenance of buildings and systems.

8. Feasibility study for projects and production lines.





Training and Qualification

In order to develop the engineering sector and to take care of the human resources and workers in this sector, we have worked to promote the engineering profession and to develop and upgrade this profession and its employees. The strategy of the laboratory is to upgrade the capabilities of engineers by adopting training and qualification curricula at the national and global levels that enable them to raise the level of works in the engineering sector through training courses to achieve leadership in raising the level of engineering education in the academic and training fields in order to achieve compatibility Between the outputs of education and the labor market and upgrading the capabilities of engineers to adopt training and rehabilitation curricula at the national level to enable them to practice the profession effectively.



# **Goals of Training**

Implement engineering vision to achieve leadership in the field of management work.

Supervision of training centers in cooperation with the General Organization for Vocational and Technical Training.

Encouraging the private sector for engineering training to develop the capabilities of engineers.

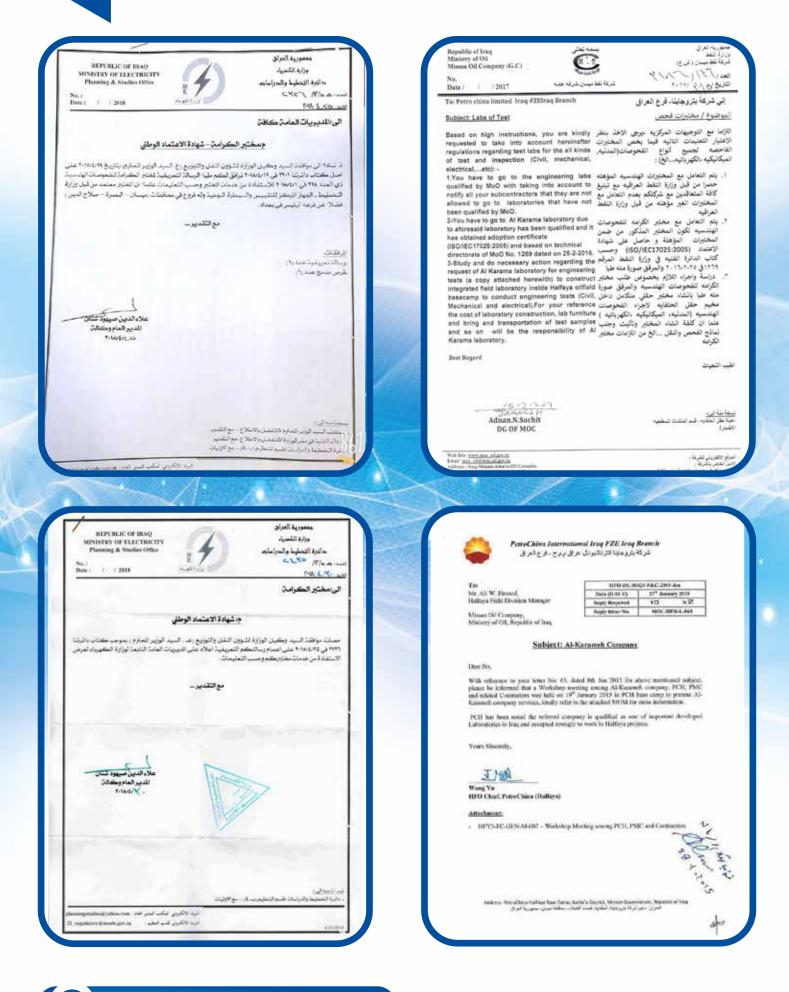
Organizing programs and lectures for members.

Identification of training needs based on work requirements and required skills.





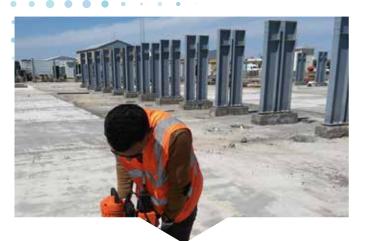
# Certificates





Projects

Amu Baba Stadium



### Meddle Oil Company



# Dijla Resort

Miswag Mall



#### Arthul Imara Cement Factory



Shaab Mall

14 www.krmlab.com info@krmlab.com





Waste Treatment Station With Sirte



Numan Hospital



#### Shaab Housing Complex



Mary Mall

Gas Seperation Station (CPF1) With PetroChina

Closed Water Park