

BALAD AL-SILM ENGINEERING BUREAU

Address: Iraq - Baghdad- AI-Selegh District (opposite to AI-Forqan Mosque)

Email: rafifadel.gm@gmail.com & rafifadel@yahoo.com

Tele: 009647705311336 & 009647711306022





C.V

Name: Rafea Fadhel Ibrahim Date of birth: 15/7/1961 Nationality: Iraqi Marital status: Married, having five children Title: Civil Engineer, Consultant engineer

Education qualification:

B.Sc. in Civil Engineering/University of Technology/1984 B.Ar. in English Language/University of Baghdad/2002



Language Experiences: In addition to Arabic; English Language: good as a first language French Language: good as a second language

Computer Experiences:

Capable of using many computer programs such as: Auto CAD ,Civil 3D, Revit , Advance Steel ,STAAD Pro., ETABS, , Primavera, Adobe Photoshop , Corel, Microsoft Office programs (Word, Excel,....etc)

E- Mail & Phone Numbers: rafifadel@yahoo.com rafifadel.gm@gmail.com

00964 770 531 1336 00964 771 130 6022

Employment History:

Name of Employment	Title	From	То
Rafea Fadhel Bureau	General Manager	1991	1996
Arabian House Bureau	General Manager	1996	2009
Balad Al-SILM Engineering Bureau	General Manager	2009	continuing





List of activities and major projects:

No.	Name of project and client	Year	Brief description of job performed
1	Construction of Concrete Yards and streets in Rashdya Camp	1986	Supervising & Executing of works/project managing
2	Construction of Sheds & Trusses in Naser Institute	1987	Supervising & Executing of works/project managing
3	Surveying & Constructing of asphalt factory	1998	Supervising & Executing of works/project managing
4	Designing & Constructing of a mosque in Baghdad	2000	Over than 2000m2 with spans reach 9m length
5	Designing & Constructing of Hawkary Building in Baghdad	2005-2006	A five story building
6	Designing & Constructing of several resident houses in Baghdad	1997-2011	More than 29 houses in Rassafa & 4 in Carkh (both sides of Baghdad)
7	Constructing of two buildings in Erbil north of Iraq	2007- 2008	Supervising & Executing of works/project managing for the show room 3 story building 50x50 m2 and Jebbal 8 story building





List of activities and major projects:

No.	Name of project and client	Year	Brief description of job performed
8	Construction of Swimming pool in Najaf	2009-2010	Supervising & Executing of works/project managing
9	Construction of Al-Nahar Street Mall	2010-2011	Designing & Supervising
10	Surveying & Constructing of Mall Al-Taher in Dewaniya	2011-2012	Supervising & Executing of works/project managing
11	Designing of Infra Structure for a residential project / west of Baghdad	2012-2013	Over than 1600 residential units to accommodates 12000 citizens
12	Designing of Al-Azizeya Mall in Baghdad Al-Mansour	2010-2011	Designing 0f 6000 m2 commercial building (12 stories & basement with all BOQ's for Architectural, Structural, Electrical & Mechanical designations.
13	Designing of Amusement Park in Dewaniya / South of Iraq	2011-2012	Designing 0f 59000 m2 entertainment project (7 buildings & games with all BOQ's for Architectural, Structural, Electrical & Mechanical designations.
14	Designing of Wedding Island in Dewaniya / South of Iraq	2011-2012	Designing 0f 31000 m2 entertainment project (4 buildings & 52 challetes with all BOQ's for Architectural, Structural, Electrical & Mechanical designations.





IV

No.	Name of project and client	Year	Brief description of job performed
15	Designing of Amusement Park in Ameria/ Baghdad	2013-2014	Designing 0f 4732 m2 entertainment project (4 buildings & games with all BOQ's for Architectural, Structural, Electrical & Mechanical designations.
16	Designing of Infra Structure for a residential project / west of Baghdad	2012-2013	Over than 1600 residential units to accommodates 12000 citizens
17	Designing of Yassamine Garden Residential Progect in Kut	2013-2017	Designing 0f 76500 m2 Residential buildings (5 srories)with all BOQ's for Architectural, Structural, Electrical, Mechanical .and Infra Structures designations
18	Designing of Dream Land Park in Dewaniya / South of Iraq	2017-2018	Designing 0f 204360 m2 entertainment project (11 buildings & games with all BOQ's for Architectural, Structural, Electrical & Mechanical and Infra structure designations.
19	Supervising and quality control on concrete works for Two Steel Structure wheat Silos of 30000 ton capacity each for behalf of Al-Qarnass consstruction company in Shatra & Kerbalah	2019-2020	Preparing of shop drawings with all BOQ's and QC issues on concrete hoopers and concrete tunnels for the plant and bins.
20	Project management in residential project phase two in Jawaher Dijlah project / Baghdad / Kadhimiya	2021	Managing of subcontracting ,managing of material and plants delivery in site; managing of Engineering staff and site requirements.



BALAD AL-SILM ENGINEERING BUREAU

The Bureau Licence :



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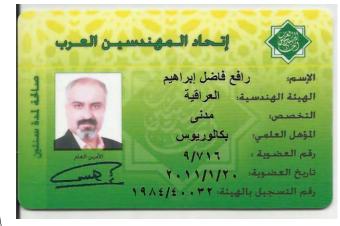
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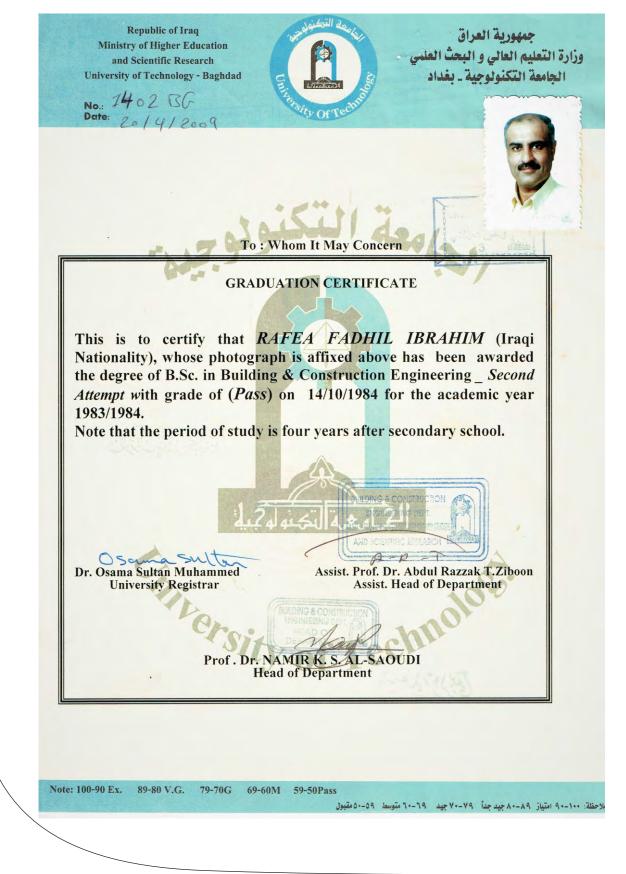


Name:	Rafea Fadhil Ibrahim
Eng. Org.:	Iraq
Specialization:	Civil Eng.
Qualification:	BSc.
Membership No.:	9/716
Membership Date	: 20/1/2011





The Bureau Licence :







The Bureau Licence :



To / Presidency of Baghdad University / Students' Affairs Department

This is to certify that RAFEA FADHIL IBRAHIM (of Iraqi nationality), whose photo is affixed above, is one of the graduate students of our College (Day Shift) for the academic year2001/2002. He was awarded the B.A. Degree in English with the grade (good) and with an average mark of 76,66 on 30/6/2002, noting that he ranked 10th out of 157 graduate students. We append below the marks he obtained during his period of study in the College. ALL ARMAGERS

First year, 1998/	Third year, 2000/2001				
Subjects	Units	Marks%	Subjects	Units	Marks%
Grammar	2	74	Grammar	2	79
Pronunciation	3	70	Novel	3	76
Literature	4	76	Translation	2	81
Composition	2	83	Poetry	2	59
Comprehension	3	83	Linguistics	2	71
2 nd Language	2	81	Drama	3	70
Arabic	2	97	Essay	2	86
National Culture	2	93	2 nd Language	2	96
			National Culture	2	81
Result: Pass	1		Result: Pass		
Second year, 1999	-	Manha9/	Fourth year		
Second year, 1999 Subjects	9/2000 Units	Marks%	Fourth year Subjects	-,2001/200 Units	
Subjects	Units		Subjects	Units	Marks%
Subjects Grammar	Units	65			
Subjects Grammar Composit.&Comprehension	Units	65 71	Subjects	Units	Marks%
Subjects Grammar	Units	65	Subjects Linguistics Grammar Poetry	Units 3	Marks%
Subjects Grammar Composit.&Comprehension	Units 2 4	65 71	Subjects Linguistics Grammar	Units 3 3	Marks%
Subjects Grammar Composit.&Comprehension Phonetics	Units 2 4 2 2	65 71 72	Subjects Linguistics Grammar Poetry	Units 3 3 2	Marks% 71 78 75
Subjects Grammar Composit.&Comprehension Phonetics Speech Practice	Units 2 4 2 2 2 2 2	65 71 72 92	Subjects Linguistics Grammar Poetry Translation	Units 3 3 2 2 2	Marks% 71 78 75 78
Subjects Grammar Composit.&Comprehension Phonetics Speech Practice Drama	Units 2 4 2 2 2 2 2	65 71 72 92 67	Subjects Linguistics Grammar Poetry Translation Study of Literature	Units 3 2 2 2 2 2	Marks% 71 78 75 78 89
Subjects Grammar Composit.&Comprehension Phonetics Speech Practice Drama Poetry	Units 2 4 2 2 2 2 2 2 2	65 71 72 92 67 65	SubjectsLinguisticsGrammarPoetryTranslationStudy of LiteratureDramaNovelResearch Work	Units 3 3 2 2 2 2 2 2 2	Marks% 71 78 75 78 89 89 84
Subjects Grammar Composit.&Comprehension Phonetics Speech Practice Drama Poetry Novel Translation National Culture	Units 2 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	65 71 72 92 67 65 72	SubjectsLinguisticsGrammarPoetryTranslationStudy of LiteratureDramaNovelResearch Work	Units 3 3 2 2 2 2 2 3	Marks% 71 78 75 78 89 84 57
Subjects Grammar Composit.&Comprehension Phonetics Speech Practice Drama Poetry Novel Translation	Units 2 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	65 71 72 92 67 65 72 71	Subjects Linguistics Grammar Poetry Translation Study of Literature Drama Novel	Units 3 3 2 2 2 2 2 3 2 2 3 2 2 3 2 2 3 2 3	Marks% 71 78 75 78 89 84 57 80

Remark 1. Lowest pass mark: 50%

2. The average mark was calculated according to the following percentages of the study years: 10% for the first stage; 20% for the second; 30% for the third and 40% for the fourth.

3. The mark (*) denotes that the student passed in the subject at the second attempt.

4. The period of study is (4) academic years.

5. Grading system: Pass (50-59) ; Average (60-69) ; Good (70-79) ; Very good(80-89); Excellent (90-100) Prof. Dr. Abdul Wahid M. Muslat U.Prof. Dr. Sadiq A. Aziz

Affairs

Asst. Dean For Student

Lamia Ridha Hassan College Registrar

> Translator The Bureau is NOT



BALAD AL-SILM ENGINEERING BUREAU

THE ENGINEERS AND THEIR SPECIALITIES:

 Name : Salam Ahmed Hasan

 Nationality : Iraqi.

 Address : Baghdad- Iraq.

 Mobile : +964 7715884689

 Email : salam_arq@qarnass.com

 Birth : Nineveh (Mosul), Iraq / june 25, 1964

 Marital state : married.

 Children : 6.

 Languages : good in English,& Arabic (mother tongue).



Education:

 1982-1987: B.Sc. Degree in Electric & Electronic Engineering , University of Technology, IRAQ

Experience:

- 1987- 2003: Project manager (ministry of industry).
- 2004-2006: Construct a military hospital/ USA Corps of Engineers (USACE)/Camp Victory/Baghdad as Project manager (Sam Group Co.).
- 2006-2010: construction and executing various structures and projects for a
 governmental beneficiary side. As Project manager (Sam Group Co.)..Main
 project is construct 14 college building in university of kofa.
- 2010-2015 : projects manager of 3 grain steel silo(30000ton) with Scafco US company & Petkus German Company.
- 2003-2015 : Working for the private sector, capability of preparing bill of quantities estimating the costs and executing of civil ,Mechanical ,Electrical construction projects.

Personal:

Interests including correspondence, reading, learning and improving computer knowledge and skills concerned with Electronic hardware design and test ,Debug and emulation software,C-language programing , PLC Programing.

Skill & Abilities:

- Computer literate: C language programing, Microsoft office word, Exel,...etc. Using the internet, electronic mail and AutoCAD, 3DMAX
- Planning works: use of critical path method (CPM) for computing a time for executing works.







ARCHITECTURAL ENGINEERS :

Name	Basim Abdulqader Maher
Nationality	Iraqi
Occupation	Consultant Architect.

ACADEMIC QUALIFICATIONS:

B.Sc. (Architecture Eng.), University of Technology, Baghdad, Iraq, 1983.







<u>C.V</u>

Personal information

Name:	Basim Abdulqader Maher	
Nationality:	Iraqi	
Birth date:	25 February 1961	
Gender:	Male	
Marital status:	Married	
Languages:	Arabic (mother tongue), English	

Contact information

Um Uthena- Amman-Jordan.
840470 Amman 11181 Jordan.
Amman.
Jordan.
Basimmahir@yahoo.com.
00962788731600 - 009647809215148

Education:

Institution:	Technological University.
Location:	Baghdad- Iraq
Completion Date:	Completion Date: June 1983
Degree, Major:	Degree, Major: Bachelors- Architecture Department.

Membership:

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- Member of the Iraqi Engineers syndicate. August 1983.

- Member of the chamber of commerce – Amman. July 2005.





Objective: Career

 Position sough:
 Project manger / consulting engineer / site manger.

 Objective:
 Eager to work in a company, which offers stability and development, and explores the spirit of creativity and determination.

Professional Experience:

Dates: Position in company: Company name: Company address: Work description: July 2005- To 2008. Project Manger. "Al Malwya" Co. For Housing. Amman- Jordan.

11 Project manger for amail co. as CM in the project to build 20 floors hotel (millennium Hotel) for EHR in shmesani/Amman – 1-2010 till 2015.

2 Project manger for CM2 co. in the project to build 9 floors hotel (IBIS Hotel) for AHC in Gardens/Amman – 2008 till 2009.

3 Designing the concept of "Al Raiah" town in Amman for the Singaporean company (Gold Mart Mega Trust pte ltd) to invest 350 million \$ - 2007.

. Convention with the Malaysian company (First Class Estate sdn.bhd.) to oversee the company's receipt of their share in Sarah towers in Mecca-Saudi Arabia – 2007.

4 Supervising on "Al raafa housing" co. to build a 7 floors building in Tla'a Al- Ali / Amman – 2006.

Dates:

Position in company: Company name: Company address: Work description: September 1992- To July 2005. Chairman. "Dar Al Basim" For architectural design Baghdad- Iraq.

5 Preparation of architectural design and building constriction for dozens of commercial buildings, villas, banks and school.
6 Drawings design for buildings in Beige power station in favor for the Italian company "Anisaldo co." – 2000.

7 "Kamal al- samra'ai Hospital for prenatal – 1996.

- 8 "Al Sajda" palace 1994.
- 9 Terminations of Command Iraqi air force buildings- 1993.
- 10 Terminations of the national leadership buildings- 1992.



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THE ENGINEERS AND THEIR SPECIALITIES:

Dates: Position in company: Company name: Company address: Work description: May 1989- To September 1992. Partner. "Al Mashreq co." Baghdad- Iraq.

11 Decoration of the reception hall for the Minster of the local government- 1990.
12 Establishing a carpentry factory for wooden work and furnishings- 1989.

Dates: Position in company: Company name: Company address: Work description: 1986- To May 1989 Partner. "Al Arab construction co. Baghdad- Iraqi.

13 Concrete structures for workshop and administrative buildings for the Atomic energy organization- Baghdad – 1988.
14 The finishing of administrative buildings for the Atomic energy organization- 1989.

Skills:

- Good computer skills (Words, Excel, E-mail, Internet, AutoCAD 2D, 3D).
- Strong interpersonal and highly motivated.
- Work effectively, independently, or as a team player.

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MECHANICAL ENGINEERS :

Name	Ahmed Adil Wahieb
Nationality	Iraqi
Occupation	Licensed Mechanical Engineer.

ACADEMIC QUALIFICATIONS:

B.Sc. (Mechanical Eng.), University of Al-Mustansirya University, Baghdad, Iraq, 2006









BAGHDAD

CURRICULUM VITAE

Iraq Tel: +964(0) 78 01 446 961

Email: ahmad.mail2013@gmail.com

Personal Information

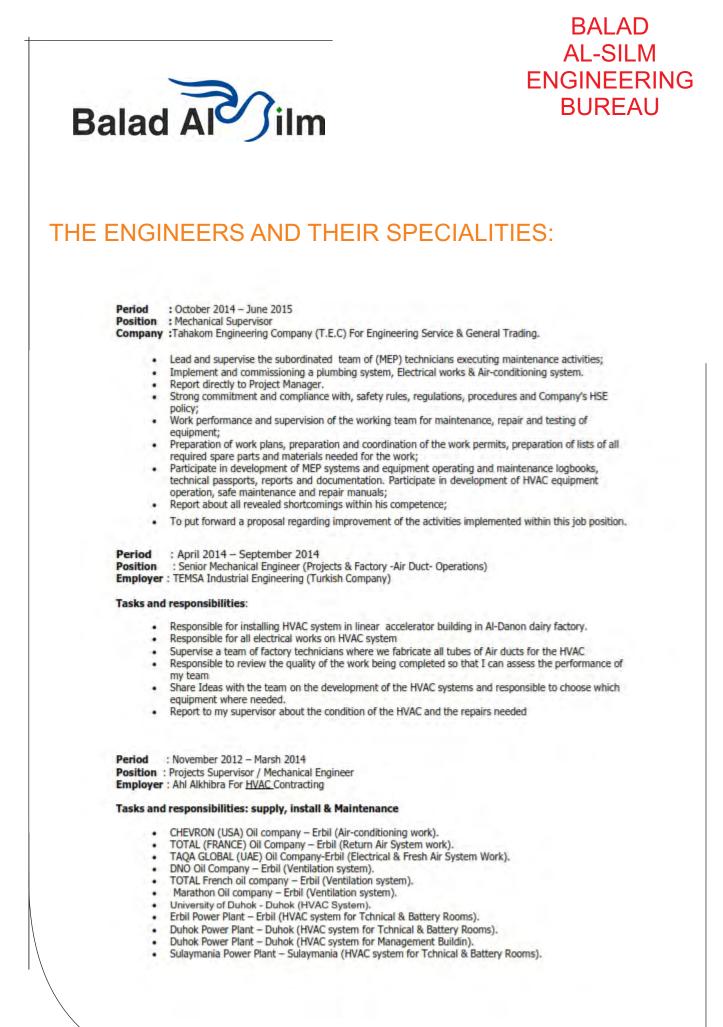
Name: Ahmed A. Wahieb

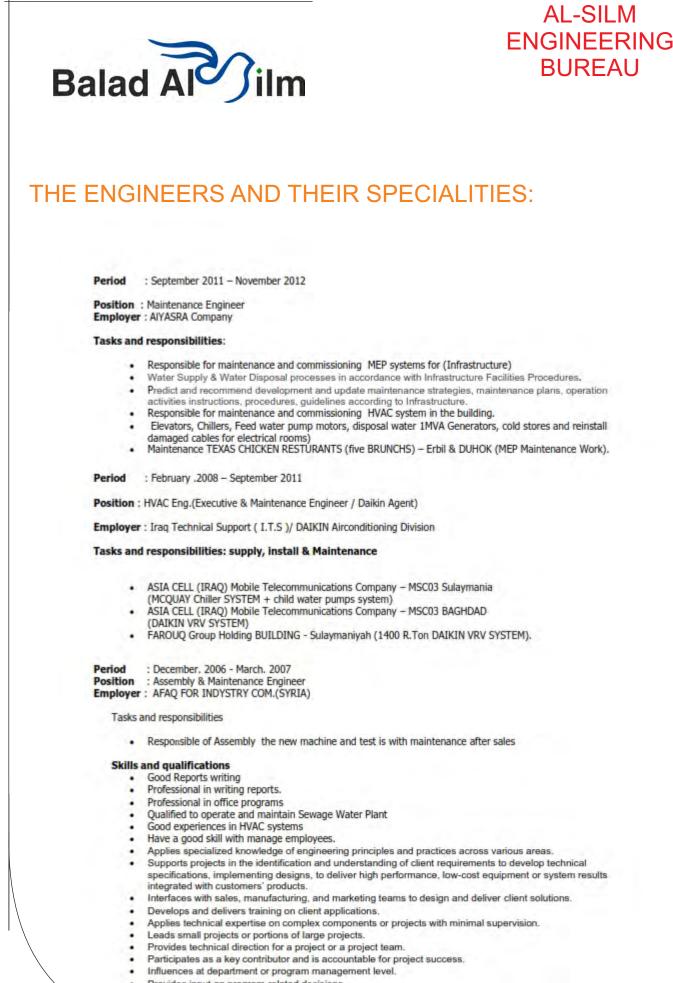
Education

2005–2006 : Al-Mustansirya University -Baghdad Specialization : Mechanical Engineering

Work Experience

- : December 2019 Currently Period : PLUMBING Supervisor Position Company : LUKOIL Mid-East Limited - WQ2 OIL FIELD - IRAQ - BASRAH (LUKOIL Mid-East Limited is an integral part of the LUKOIL Group which manages oil and gas exploration and production projects in Iraq). Lead and supervise the subordinated team of (PLUMBING and STP) technicians and operators executing maintenance activities; Report directly to Superintendent. Strong commitment and compliance with, safety rules, regulations, procedures and Company's HSE policy; Work performance and supervision of the working team for maintenance, repair and testing of equipment: Preparation of work plans, preparation and coordination of the work permits, preparation of lists of all required spare parts and materials needed for the work; Participate in development of PLUMBING and STP systems and equipment operating and maintenance logbooks,technical passports, reports and documentation. Participate in development of MECHANICAL equipment operation, safe maintenance and repair manuals; Report about all revealed shortcomings within his competence; To put forward a proposal regarding improvement of the activities implemented within this job position; : July 2016 - December 2019 Period Position : HVAC Team Leader Company : Anton Oilfield Services DMCC. -West Qurna 2 Project, Iraq Lead and supervise the subordinated team of (HVAC) technicians executing maintenance activities; Report directly to Project Manager. Strong commitment and compliance with, safety rules, regulations, procedures and Company's HSE policy; Work performance and supervision of the working team for maintenance, repair and testing of equipment; Preparation of work plans, preparation and coordination of the work permits, preparation of lists of all required spare parts and materials needed for the work; Participate in development of HVAC systems and equipment operating and maintenance logbooks, technical passports, reports and documentation. Participate in development of HVAC equipment operation, safe maintenance and repair manuals; Report about all revealed shortcomings within his competence; To put forward a proposal regarding improvement of the activities implemented within this job position;
 - Issues PTW (Permit To Work), provides Tool Box Talking before job execution.





BALAD

- Provides input on program-related decisions.
- Proposes innovative initiatives and projects.
- Demonstrates depth of knowledge of engineering discipline(s) and leverages expertise on other projects.
- Troubleshoots complex problems and recommends appropriate actions.
 - Assists with the transfer of knowledge; coaches and mentors less experienced engineers.





Training and courses: -

- Waste Water Treatment Training Course (EGY CET Egypt)
- IMIST International Minimum Industry Safety
- (VRV TRAINING & CHILLERS PRODUCTS) from DAIKIN training Center(Singapore).
- Basic H2S Training Stiriling Group (Retrata) Lukoil WQ#2
- Designated First Aider Stiriling Group (Retrata) Lukoil WQ#2
- Fire Fighting Basic Stiriling Group (Retrata) Lukoil WQ#2
- Oil spill Response Stiriling Group (Retrata) Lukoil WQ#2
- Working at Height Stiriling Group (Retrata) Lukoil WQ#2
- Confined Space Entry Stiriling Group (Retrata) Lukoil WQ#2

Languages:

- Arabic (Mother Language),
- English (Very Good),
- Turkish (Average)

Driving Licenses:

Have driving Licenses - Iraq

Hobbies:

X \/II

- Watching and reading scientific reports
- Reading Books
- Fishing





ELECTRICAL ENGINEERS :

Name	Mohammed Fadhel Jasim
Nationality	Iragi
Hadonancy	2.00
Occupation	Consultant Electrical Engineer.

ACADEMIC QUALIFICATIONS:

B.Sc. (Electrical Eng.), University of Technology, Baghdad, Iraq, 1985.



Eng: Mohammed Fadhel Jasim Speciality-Electric. Degree: Consultant Division: Electric. Genemosate: Baghdad Appointing Date: 1986-07-03 Isue Date: 2022-09-20 Expire Date: 2024-02-01







Personal C.V

Name: Mohammed Fadhel Jasim Nationality: Iraqi

Date of birth: 1962

Sex: Male

Marital status: Married Profession: Electrical Engineer

Qualification: BSC in Electrical Engineering University of technology — Baghdad 1985.

Address: Mail: mohammed _fj62@yahoo.com

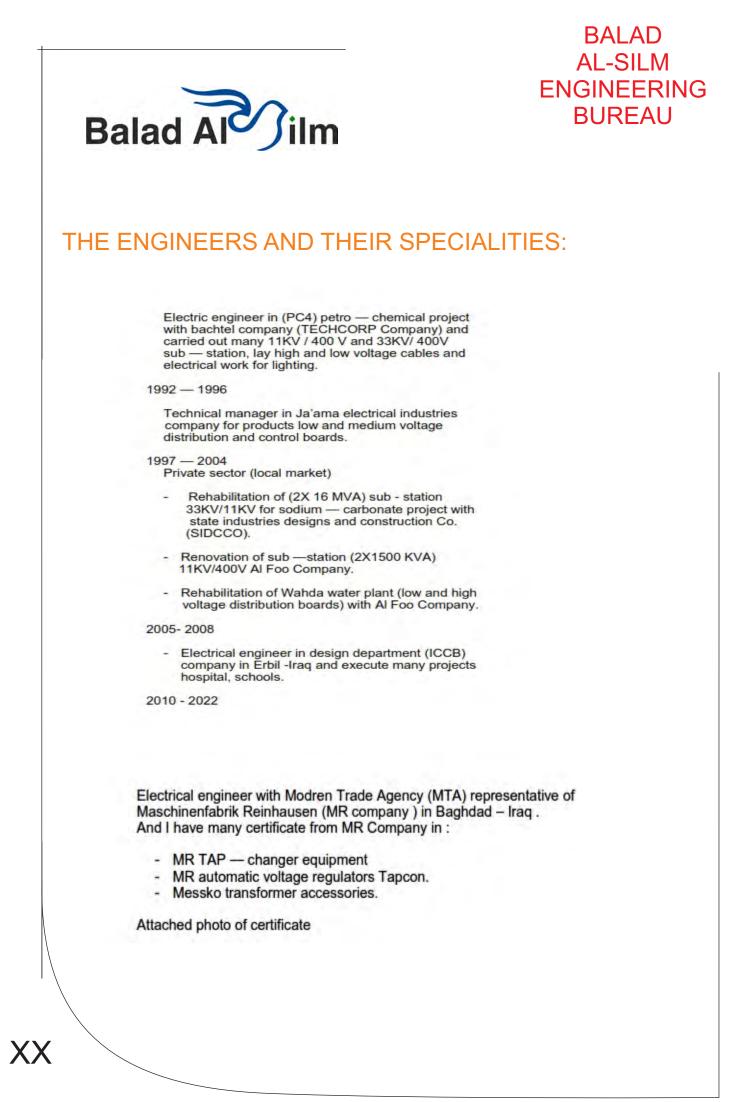
Mobile: 079016 76919

Key experience

A consultant engineer with 28 years in distribution board low voltages and medium voltage, sub — stations control circuit, motors, cable, plc software, supervising, estimating and managing projects.

Experiences

1987-1992







Certificate

Mr. Mohammed Fadhel AL-NADAWI (Modern Trade Agencies & Export Co. Ltd. (MTA))

has participated in a training course on

MR TAP-CHANGER EQUIPMENT MR automatic voltage regulators Tapcon® Messko transformer accessories

Conducted in Regensburg, Germany from 25th March 2013 to 11th April 2013

Transformer Control Maschinenfabrik Reinhausen



XXI





CIVIL ENGINEERS :	
Name	Hassan Kadhum Mohammed
Nationality	Iraqi
Occupation	Consultant Civil Engineer.

ACADEMIC QUALIFICATIONS:

B.Sc. (Civil Eng.), University of Technology, Baghdad, Iraq1986











CIVIL ENGINEERS :

Name	Talal Sadeq Adbulghafoor
Nationality	Iraqi
Occupation	Practitioner Civil Engineer.

ACADEMIC QUALIFICATIONS:

B.Sc. (Civil Eng.), University of Technology, Baghdad, Iraq, 1984



REPUBLIC OF IRAQ

Name: Talal Sadeq Abdulghafoor Speciality: Construction & Building: Degree: Practitioner Division: Civil. Governorate: Baghdad Association No.38172 Association Date: 1984-07-10 Issue Date: 2021-09-11 Expire Date: 2023-12-31



XXIII



List of references available in the bureau library: Design of steel structures.....P.DAYARATNAM. Steel Designers' Manual BUICK DAVISON& GRAHAM. Manual of STEEL CONSTRUCTION......AISC. Structural Engineering Handbook....EDWIN H. GAYLORD, JR. Fundamentals of Structural Analysis....SUJIT KUMAR ROY. Design of Concrete Structures.....WINTER/NILSON. Properties of Concrete.....A.M.NEVILLE . ACI 318 — 2014. Foundation Analysis and Design...JOSEPH E. BOWLES. Reinforced Concrete Designer's Handbook....CHARLES Engineering Handbook...HANS F. WINTER KORN. Building Construction Handbook.....FREDERICK S. MERRITT. Quantity Surveying.....P.L.BHASIN. Strength of Materials.....FERDINAND L.SINGER. Introduction to Mechanics of Solids......EGOR P. POPOV. Advanced Engineering Mathematics....ERWIN KREYSZIG. Project Management with CPM and PERT.JOSEPH J. MODER. Architectural Graphic Standards....RAMSEY/SLEEPER. Handbook of Specialty Elements in Architecture.....AIA .. Handbook of Civil Engineering Calculations.. Hicks

In addition to these books, there is a big soft ware library contains many electronic books, drawings in all branches of Engineering.

The major projects :

With the next few papers a summary with photos about the major projects handled by the bureau during the last decade in North, Middle and South of Iraq.

XXIV

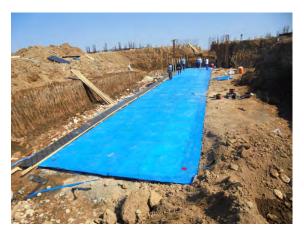
Each Silo consists of 20 bins with capacity of 1500 Ton thus the total capacity would be 30000 ton .The soil type of Shatra includes clay and silt where precast piles would proper for sustaining each bin load separately.















A reinforced concrete ring beam rest on piles will support 12 rectangular columns that in return will support a similar upper rectangular reinforced concrete beam that holds a concrete conical hopper of 10.35 m diameter











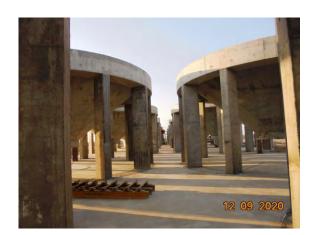




Two rows of bins, 10 bins for each row divided into two groups by a six stories work house steel structure building in the middle represents the heart of the silo where loading and unloading processes can be managed together at the same time.















The loading area consists of further four loading bins with telescopic spouts two for trucks loading and two for train loading The silo includes aspiration system to remove the dust and collect it in dust and impurities bins.















The bins are provided with emergency side discharge pipe and emergency access side wall door. The silo would be provided with passages ,stairs , to ease maintenance . BALAD AL-SILM ENGINEERING BUREAU













Two grain cleaners with cleaning machines to clean all the unwanted materials(dust , hay ,stones...etc). The silo is provided with chain conveyores BALAD AL-SILM ENGINEERING BUREAU













Bucket elevators are the main device for vertical movement of the grain installed in the workhouse building. The power station includes necessary boards and electric transformers.















The PLC control system includes industrial computer & monitors that would facilitate operation of all silo activities (receiving ,loading, cleaning, circulating) . Two truck damper is available for unloading process.















The Loading bins for trucks rest beside the workhouse building. The availability of passages in the upper side of the silo provides ease for workers to move , erect and check. BALAD AL-SILM ENGINEERING BUREAU













The project consists of a commercial building with 2 stories over 35000 m2 and with a built area around to 6000 m2 .The building includes a ramp leads to the hyper market and a loading area









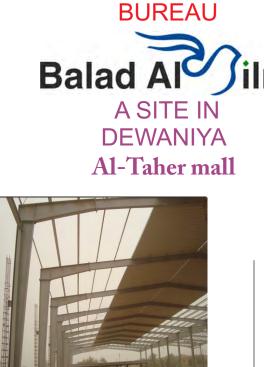






As the building was intended to serve as a mall and commercial stores ; a great intention was taken to provide air conditioning for the hyper market and other stores, the site is designed to fulfil all the needs of the customers including a wide car park for over 500 cars





BALAD AL-SILM

ENGINEERING







The facade was designed to include modern architectural elements finished with permanent fixed colored materials mixed with metallic strips to allocate rendering areas along the facade and providing large areas for advertisments

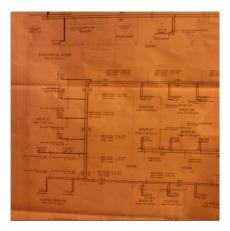












The project consists of 10 multistory buildings of four and five stories over 76500 m2 area at the entrance of Kut city. 760 apartment units of 100 m2 area in addition to Mosque, three schools, four retails, medical center and administration building





Residential Project





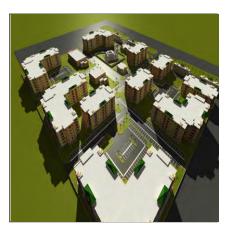




More over than 594 car parks were distributed all around the site with roads that divide the site into sectors which facilitate the movement and traffic among the buildings . plants with green areas were provided also to enhance the architectural function.



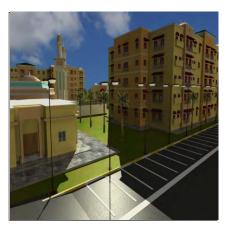
Residential Project











The footings are designed according the bearing capacity of soil in Kut which is 65 KN/M2 and all the footings are rafts (mat foundations) with areas suitable for carrying service loads of all the columns Balad A according the bearing capacity of the soil. The concrete is of type C20 with sulfate resistant cement.

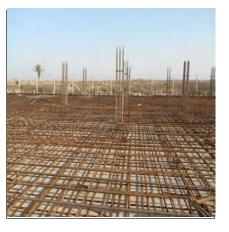


Al-Yassamine Garden

Residential Project











The construction process included the start of several buildings and the installing of two concrete plants that the rate of feeding of concrete will lead all the relative activities in site. All necessary laboratory tests are taken in site.



Residential Project











7

The construction of brick walls is associated with the construction of concrete frames so as to all the building will be delivered to the finishing process thus many recesses , friezes ,metopes and corbels are made in combination of brick and concrete works according to the architectural drawings.



Al-Yassamine Garden

Residential Project











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The project consists of a commercial building with 4 stories and a basement erected over a 500m2 land, that is with a built area around to 2500m2.The building includes a ramp leads to the basement and a loading area adjacent to the elevator.





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ENGINEERING

BUREAU

Balad Al Jilm







As the building was intended to serve as a medicine store ; a great intention was taken to provide air conditioning for the basement and other stories, an elevator for goods to lift the medicine to the stories directly from the truck through the loading area in the entrance of the building













The facade was designed to include modern architectural elements such as arches finished with permanent fixed colored materials mixed with metallic strips to allocate rendering areas along the facade













The interiors were designed to give the same impression of modern building specially for the administration sector which was wide with false ceiling cool colored decorated with spotlights















The project consists of a wide hall of 370m2 contains columns with 7&9 meters spans holding a brick dome of 9m diameter surrounded by flat slabs held by inverted beams with rainwater inlets in holes fit to roofing tiles level and where it is allowed structurally



A MOSQUE SITE











The project consists of a big show room 50x50m2 with basement and 3 stories including wide spaces , in addition to an office building consists of 4 stories with basement next to the big show room.















The buildings were designed and erected in a simple manners of repetition in using the frame works and reinforcement; the amounts of concrete (600m3 for one slab) were cast easily(it took 12 hours to cast one slab.















The building code specifications for expansion joints were limiting the need for such joints with building exceeds 150 ft -200 ft in length ; this had excluded the show room which was in limit.















During the constructing of the ground floor columns a decision was made to reevaluate the weights and measurements of footings to see wether it is possible to put additional two stories and the results were good if we just enlarge the columns sizes and add few reinforcement bars to them.















The project consists of 8 stories building with basement , built on 400m2 land on the main 60 m width circular street in Erbil. The building is provided with two elevators to transmit the staff along it. The ground floor with the basement are used as a showroom for Jibal co.







A SITE IN ERBIL JIBAL CO. OFFICES









There are two big arches at the top of the building joined at the corner covered with metallic sheeting which distinguish the building ; to support this mass we added a steel structure frame fixed on the main columns of the building designed in soft ware (STAAD Pro.) with calculations for the weights and wind load.













Erbil lies in the zone of seismic forces and the wind loads are greater than those in Baghdad thus a suitable choice was to put the elevators and the stairs together as a big concrete mass to sustain these forces. The interiors also helped to give the impression of a modern building.





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Ministry of Youth has initiated many projects all around the country; one of them is an open Olympic swimming pool in Njaf . A 20X50m2 swimming pool, 20x50m2 diving pool, several halls for fitness, sawna baths and an administration building with basement and tunnels around the pools to accommodate pumping and water curing MINISTRY OF YOUTH

BALAD **AL-SILM ENGINEERING BUREAU**

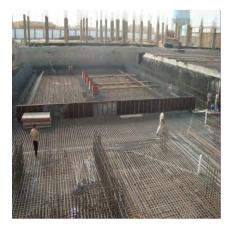


A SITE IN NAJAF











To avoid the high water table level in soil, the site was lifted by 90cm and a de watering process persisted during the substructure executing period. A huge concrete casting process (1700m3) for the raft beneath the diving pool and the basement was done. It took 16 hours for BALAD AL-SILM ENGINEERING BUREAU



three concrete plants, four concrete pumps **A SITE IN NAJAF** and fleet of truck mixers to finish the job.**MINISTRY OF YOUTH**











Several trial mix design jobs were done to reach the appropriate mix job with admixtures for 120 cm thickness raft cast in hot weather, intended to be impervious suitable for swimming pools. The raft Balad Al ilm included two parts with difference in finished level within 1.2 m thus we needed steel plate molds supported with bars to

A SITE IN NAJAF sustain the concrete of the higher level. MINISTRY OF YOUTH











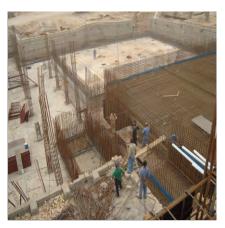


The lower raft casting was followed by another casting for the wall between the two pools and later on a second huge raft beneath the swimming pool(1100m3) which took 12 hours for two concrete plants and two concrete pumps to finish it.





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The project included filtration and sterilizing of water through a net of piping collecting **ENGINEERING** over flow water and draining the pools.During the sub-structure period, a decision was made to cover the pools and the bleacher Balad Alim

building with a steel structure roof, a redesigning was made included adding new

columns and additional reinforcement to **A SITE IN NAJAF MINISTRY OF YOUTH** other existing columns.





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