

السيرة العلمية للأستاذ المشارك الدكتور طالب كشاش مرتضى أبو طبرة



الاسم الكامل : د. طالب كشاش مرتضى أبو طبرة
محل وتاريخ الولادة : العراق – 1957
المرتبة العلمية : أستاذ مشارك
مكان العمل : جامعة مؤتة/ كلية الهندسة
قسم الهندسة الميكانيكية
الاختصاص العام : دكتوراه هندسة ميكانيكية
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❖ الشهادات العلمية:

- 1- بكالوريوس هندسة ميكانيكية/ الجامعة التكنولوجية/ قسم هندسة المكائن والمعدات/ 1979
- 2- ماجستير هندسة تبريد وتكييف / الجامعة التكنولوجية/ قسم هندسة المكائن والمعدات/ 1983
- 3- دكتوراه هندسة ميكانيكية- هندسة تبريد وتكييف/ جامعة بودابست التكنولوجية/ 1992

❖ الدرجات العلمية:

- 1- مدرس مساعد: 1984 (تاريخ اول تعيين في الجامعة التكنولوجية).
- 2- مدرس: 1992 (تاريخ الحصول على شهادة الدكتوراه).
- 3- أستاذ مشارك: 1999.

❖ المواضيع التي قام بتدريسها:

- 1- هندسة التدفئة، التهوية والتكييف/ الجامعة التكنولوجية/ جامعة مؤتة
- 2- تصميم منظومات تكييف الهواء/ الجامعة التكنولوجية/ بغداد
- 3- منظومات التجميد/ الجامعة التكنولوجية/ جامعة مؤتة
- 4- انتقال الحرارة/ الجامعة التكنولوجية/ بغداد
- 5- الثرموداينمك/ الجامعة التكنولوجية/ بغداد
- 6- تكييف الهواء متقدم/ للدراسات العليا/ الجامعة التكنولوجية/ بغداد
- 7- تجميد متقدم / للدراسات العليا/ الجامعة التكنولوجية/ بغداد
- 8- ترشيد الطاقة/ للدراسات العليا/ الجامعة التكنولوجية/ بغداد
- 9- علوم الموائع والحراريات/ ماجستير/ جامعة مؤتة
- 10- تحويل الطاقة/ ماجستير/ جامعة مؤتة
- 11- طاقة الرياح/ ماجستير/ جامعة مؤتة
- 12- رياضيات هندسية متقدمة/ ماجستير/ جامعة مؤتة
- 13- تحليل عددي متقدم/ ماجستير/ جامعة مؤتة

- 14- منظومات الطاقة المتجددة/ ماجستير / جامعة مؤته
- 15- بحوث عمليات متقدم/ ماجستير / جامعة مؤته
- 16- كفاءة الطاقة / ماجستير / جامعة مؤته
- 17- الخلايا الضوئية / ماجستير / جامعة مؤته
- 18- ميكانيك الموائع/ جامعة مؤته
- 19- محركات الاحتراق الداخلي/ جامعة مؤته
- 20- آلات توربينية/ جامعة مؤته
- 21- تطبيقات عددية على الموائع و احارريات/ جامعة مؤته
- 22- بحوث عمليات لطلبة الهندسة/ جامعة مؤته
- 23- بحوث عمليات لطلبة النظم الصناعية/ جامعة مؤته
- 24- تحليل هندسي و عددي لطلبة النظم الصناعية/ جامعة مؤته
- 25- إحتتمالات وإحصاء هندسي/ جامعة مؤته
- 26- تحليل هندسي/ جامعة مؤته

❖ السيرة العلمية والوظيفية:

- 1- تدريس المواضيع العلمية المدرجة أعلاه في الجامعة التكنولوجية/ بغداد للفترة من عام (1984-2016) وفي جامعة مؤته/ كلية الهندسة للفترة من (2016- لغاية الآن)
- 2- حاصل على براءة إختراع (تصميم مبتكر يحاكي الثلجة المغناطيسية المنزلية) في 2017/3/19
- 3- رئيس فريق إعداد مدونة التبريد العراقية/ 2012
- 4- أشرف على (7) طلاب دكتوراه وأكثر (30) طالب ماجستير في تخصصات الهندسة الميكانيكية/ تبريد وتكييف، طاقة متجددة، ترشيد الطاقة، موائع التثليج، إنتقال حرارة ... الخ.
- 5- نشر ما يقارب (30) بحث علمي في المواضيع أعلاه.
- 6- عمل استشاري أعمال ميكانيكية (تصميم، تدقيق، إشراف) ولفترة (30) سنة وللمشاريع المرفق بعضها.
- 7- شمل بقانون رعاية الملاكات العلمية العراقية لعام 2000.
- 8- معاون رئيس قسم هندسة المكائن والمعدات/ الجامعة التكنولوجية/ بغداد 1994 – 1997.
- 9- رئيس فرع هندسة التبريد والتكييف/ الجامعة التكنولوجية/ 1997 – 1999.
- 10- عضو المكتب الاستشاري الهندسي/ الجامعة التكنولوجية/ 1993 – 1999.
- 11- مدير المكتب الاستشاري الهندسي/ الجامعة التكنولوجية/ 2000.
- 12- رئيس قسم التعليم التكنولوجي/ الجامعة التكنولوجية/ 2000 - 2003.
- 13- عضو لجنة الدراسات العليا في قسم هندسة المكائن والمعدات/ الجامعة التكنولوجية/ 2006-2015

❖ الأشرف على رسائل الدكتوراه المنجزة:

- 1- "Experimental and Theoretical Study Using the Passive Solar Chimney for Evaporative Cooling With PCM and CFM as a Thermal Energy Storage"\ U.O.T. – Baghdad\ July 2017.
- 2- "Experimental and Theoretical Investigation of Magnetic Refrigerator Performance"\ U.O.T.-Baghdad\ July 2015.
- 3- "The Effect of the External Magnetic Field on the Natural Convection Heat Transfer of a Liquid Metal in an Enclosed Cubic Cavity"\ U.O.T. - Baghdad June 2005.
- 4- "Numerical and Experimental Investigation of Gas Turbine Combustor"\ U.O.T. - Baghdad\ January 2005.
- 5- "Numerical and Experimental Investigation For A Counter Flow Cooling Tower Performance"\ U.O.T. - Baghdad\ April 2004.
- 6- "Numerical and Experimental Study of Enhancement of Heat Transfer in Roughened Ribbed Duct" \ U.O.T. - Baghdad\ January 2004.
- 7- "Numerical and Experimental Investigation of Laminar and Turbulent Mixing of Two Streams"\ U.O.T. - Baghdad\ December 2001.

❖ الأشرف على رسائل الماجستير المنجزة:

- 1- "Solar Passive Heating Strategies Performance And Management Investigation of Jordan Low-Middle Income Houses" Mutah University, Dec. 2020.
- 2- "Energy Management in Residential Building Using Phase Change Materials" Mutah University, Dec. 2020.
- 3- "The Effect of Preventive Maintenance on Operation Cost and Production Loss" Mutah University, Dec. 2020.
- 4- "Performance Evaluation of Solar Photovoltaic Panel under Different Cooling Methods" Mutah University, Apr. 2020
- 5- "Waste Heat Recovery in Cement Plant with Thermo-Electric Generator Implementation" Mutah University\ Apr. 2019.
- 6- "Photovoltaic Optimization Using Arduino Microprocessor Based on Maximum Power Point Tracking under Partial Shading" Mutah University\ Aug. 2019.
- 7- "Numerical and Experimental Study for the Airflow and Temperature Distribution in Operating Room".\ U.O.T.- Baghdad\ Jan. 2016.
- 8- "Using the TermoDeck System for Pre-Cooling/ Heating to Control the Building Inside Conditions"\ U.O.T.-Baghdad\ March 2014.

- 9- " Experimental and Numerical Method for Calculating Latent Heat Storage in Constructions Conraining Phase Change Material"\ U.O.T. – Baghdad\ November 2013.
- 10- "دراسة عملية لأداء الأسطح الإنتقائية المستخدمة في المجمعات الشمسية"/ الجامعة التكنولوجية/ 2012.
- 11- "Numerical Study of A Mechanically Ventilated Clean Room"\ U.O.T.- Baghdad\ May 2004.
- 12- "Numerical Study of Isothermal and Non-Isothermal Flow in Ventilated Room"\ U.O.T.- Baghdad\ Sep.2003.
- 13- "Numerical Study of Laminar and Turbulent Heat transfer in a Duct With Two Right-Angle Bends"\U.O.T.- Baghdad\ Sep.2003.
- 14- "دراسة الاداء الحراري لوسائط التبريد الهيدروكاربونية البديلة في الغرف المبردة" / الجامعة التكنولوجية- بغداد/ تموز 2003.
- 15- "دراسة الأداء الحراري لوسائط التبريد الهيدروكاربونية البديلة في الطرق المبردة" / الجامعة التكنولوجية- بغداد/ تموز 2003.
- 16- "دراسة تأثير كثافة السائل المراد رفعه ودرجة حرارة الهواء المجهز على عمل مضخة الرفع الهوائية" / الجامعة التكنولوجية- بغداد/ تموز 2002.
- 17- "محاكاة تصميم مبخر صفيحي مدرفل يعمل بموائع التثليج البديلة لـ R-12" / الجامعة التكنولوجية- بغداد/ حزيران 2002.
- 18- "تصميم منظومة تثليج امتصاصية لمحطة كهرباء الدورة باستخدام الحاسوب" / الجامعة التكنولوجية- بغداد/ كانون الثاني 2002.
- 19- "محاكاة منظومة تثليج انضغاطية والبحث عن بديل مائع التثليج المستخدم وتأثيره على طبقة الأوزون بأسلوب برمجي" / الجامعة التكنولوجية- بغداد/ تشرين الأول 2001.
- 20- "مقارنة أداء مائعي التثليج R-22 و R-290 في منظومة تثليج انضغاطية ودراسة تأثيرهما على الأنبوب الشعري" / الجامعة التكنولوجية- بغداد/ نيسان 2001.
- 21- "مقارنة الجريانين الأديبائي واللاأديبائي لمائعي التثليج R-12 & R-134a داخل الأنبوب الشعري" / الجامعة التكنولوجية- بغداد/ أيار 2001.
- 22- "دراسة تأثير درجة حرارة الخليط ثنائي الطور على أداء المضخة الفقاعية" / الجامعة التكنولوجية- بغداد/ تموز 2000.
- 23- "المماثلة العددية لمثلج ماء انضغاطي باستخدام موائع تثليج بديلة عن مائع التثليج R-22" / الجامعة التكنولوجية- بغداد/ تموز 2000.
- 24- "محاكاة منظومة تثليج انضغاطية باستخدام موائع التثليج الأمنية على طبقة الأوزون" / الجامعة التكنولوجية- بغداد/ نيسان 2000.
- 25- "تحديد الطرائق الملائمة لحساب السريان الحراري عبر الجدران والسقوف المحلية" / الجامعة التكنولوجية- بغداد/ نيسان 1999.
- 26- "دراسة الاهتزاز في المجاري الهوائية" / الجامعة التكنولوجية- بغداد/ شباط 1999.
- 27- "تطوير وتقييم منظومة تبريد أمتزاجية مفتوحة" / الجامعة التكنولوجية- بغداد/ تشرين الأول 1997.

28- "استخدام الحاسبة في محاكاة وتصميم مبادل حراري صفائحي" / الجامعة التكنولوجية- بغداد/ آب 1998.

❖ البحوث العلمية المنشورة:

1. "Thermal Efficiency for Passive Solar Chimney With and Without Heat Storage material", Journal of Engineering, Number 5 Volume 26 May 2020
2. "Transient Behavior Analysis for Solar Energy Storage in PCM-CFM Material Using Equivalent Heat Capacity Method as Storage Model", Al-Khwarizmi Engineering Journal, Vol. 14, No.2, 2018.
3. "Experimental and Numerical Study of Closed Loop Solar Chimney Assisted with PCM and CFM as Thermal Energy Storage Collector" Eng. &Tech. Journal, Vol.34, Part (A), No.13, 2016.
4. "Experimental Study Using the Passive Solar Chimney for Evaporative Cooling With PCM and CFM as a Thermal Energy Storage" Al-Khwarizmi Engineering Journal, Vol. 12, No. 3, 2016,
5. "Simplified Numerical Modeling of One-Dimensional Active Magnetic Regenerator"\ SAUSSUREA (ISSN: 0373-2525), 2015\ Volume 5 (7):PP. 237-253
6. "Practical Study of Magnetic Refrigeration Performance and Optimization"\ IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE)\ e-ISSN: 2278-1684,p-ISSN: 2320-334X, Volume 12, Issue 2 Ver. II (Mar - Apr. 2015), PP 71-80.
7. "A Novel Design of a Domestic Magnetic Refrigerator"\ International Journal of Application or Innovation in Engineering & Management (IJAIEM)\ Volume 4, Issue 2, February 2015.
8. "Effect of Vibration on the Air Flow Characteristic in a Duct" Eng. and Tech. J., U.O.T, Vol. 18, No. 5, 1999.
9. "Using TermoDeck System for Pre-Cooling/ Heating to Control the Building Inside Conditions"\ Al-Khwarizmi Engineering Journal, Vol. 10, No. 3, P.P. 13-24\ 2014.
10. "تصنيع ودراسة أداء الأسطح الأنتقائية المستخدمة في اللاقطات الشمسية المسطحة" / مجلة الهندسة/ جامعة بغداد/ 2013
11. "Three-Dimensional Computation of Turbulent Natural Convection in the Presence of Magnetic Field" *J. J. Indian Inst. Sci.*, Nov.–Dec. 2006, 86, 705–721
12. "Heat Transfer Enhancement in a Ribbed Duct" *The Journal of Engineering Research*, Vol 3, No. 1, January 2006

13. "Laminar and Turbulent Natural Convection Heat Transfer of a Liquid Metal in an Enclosed Enclosure " Engineering Journal of the University of Qatar, Vol. 19, 2006, pp.69-81
14. "A Three-Dimensional Study of Laminar and Turbulent Wall Jets" Eng. and Tech. J., Vol 24, No.7, 2005
15. "Simulation of Design of Roll Bond Evaporator Working With Alternatives Refrigerants of R-12" Eng. And Tech. J., Vol. 24, No. 1, 2005.
16. "Design of An Absorption Refrigeration System For Al-Dura Power Station By Using The Computer" Al- Muhandis J, 2003.
17. "The Effect of Lifted Liquid Density And Air Supply Temperature on The Function of Air Lift Pump" Eng. And Tech. J., Vol. 24, No. 1, 2005.
18. "Numerical Study of Three- Dimensional Laminar and Turbulent Wall Jet" Eng. and Tech. J., U.O.T, 2003.
19. "Numerical Study of Three – Dimensional Laminar and Turbulent Wall Jet" Eng. And Tech J., U.O.T, 2003.
20. "Performance Simulation of Single – Evaporator Domestic Refrigerator Using Alternative Refrigerants" Engineering Journal of the University of Qatar, Vol. 16, 2003, pp.109-124.
21. "Numerical Prediction of Three Dimensional Turbulent Heated Free Jet. Eng. And Tech. J., Vol. 21, No. 2, 2000.
22. "Numerical Modeling of Single and Two-Phase Flow in Capillary Tube with Metastable Process" Eng. And Tech. J., U.O.T, Vol. 21, No. 3, 2000.
23. "Study of Two – Phase Flows in Capillary Tube" Al- Muhandis J., No. 1, March – 2000.
24. "The Effect of Wind Velocity on the Heat Transmission Through Local Walls and Roofs Calculated Using the Separation of Variables Method" College of Eng. J., Sad. U., Vol. 4, No. 1, 2000.
25. "Numerical Model For Compression Refrigeration Cycle of Water Chiller Using R-22" 1st. Conference, Eng. College, Al Kofa Unversity, 2000.
26. "The Effect of Lifted Liquid Density And Air Supply Temperature on The Function of Air Lift Pump" 1st. Conference, Eng. College, Al Kofa Unversity, 2000.
27. "Designing and Development of Open Adsorption Cooling Unit" Eng. And Tech. J., Vol. 19, No. 6, 2000.
28. "Numerical Prediction of Laminar Mixing of Two Parallel Streams in A Duct with Different Velocity and Temperature Ratios" Engineering J., University of Baghdad, Vol. 6, No. 3, 2000.

29. "The Effect of Air Duct Dimension and Metal on its Vibration Behavior By Adopting Plate Theory" Eng. And Tech. J, U.O.T, Vol. 19, No. 3, 2000.
30. "Evaluation Performance of Plate Heat Exchange" Eng. and Tech. Jornal, U.O.T, Vol. 19, No. 2, 2000.

❖ المشاريع والأستشارات الهندسية المقدمة للمجتمع خارج الجامعة:

No.	Project Name	Work Specification	A/C System
1	SUWAYRAH AIRBASE PROJECT Air Force College and HQs Buildings Iraq 2016	Head of Mechanical Team Contribution and Reviewing Mechanical Design. & Superintending.	Air Handling Unit & Fan-Coil Systems Pumps Circulation
2	IRAQ MILITARY 400BED GENERAL HOSPITAL 18 Buildings 5Floors Baghdad 2011- 2015	Contribution and Reviewing Mechanical Design. & Superintending.	Air Handling Unit & Fan-Coil Systems Pumps Circulation Water Cooled Chillers VAV Systems
3	MINISTRY OF HEALTH Babylon Health Directorate Accidents Building 4 Floor 2015	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And Equipment Designing, Specifying and Selecting, Such As Packaged Units, Air Terminals, Fans...etc.	Unitary System, (Packaged Units)
4	MINISTRY OF HEALTH Babylon Health Directorate Medical Committees Center 4 Floor 2014	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And Equipment Designing, Specifying and Selecting, Such As Packaged Units, Air Terminals, Fans...etc.	Unitary System, (Packaged Units)
5	MINISTRY OF HEALTH Medical City Baghdad Hospital 12 Floors 2014	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, Piping And Equipment Designing, Specifying and Selecting, Such As Pumps, A.H.U, Fan-Coils, Fans,.etc.	Air Handling Unit & Fan-Coil Systems Pumps Circulation Water Cooled Chillers
6	MINISTRY OF YOUTH AND SPORT BAGHDAD SPA BUILD. 4 Floors 2013	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And Equipment Designing Specifying and Selecting, Such As AHU, Chillers, Air Terminals, Fans...etc.	Air Handling Unit & Fan-Coil Systems Pumps Circulation Air Cooled Chillers

7	Byt Al-Hekma Iraqi Ministry council 1 Buildings 3Floors Baghdad 2012	Reviewing Mechanical Design. & Superintending	Single Zone A.H.U. Fan-Coil Systems Constant Air Volume Air Cooled Chillers
8	Electrical Stations 6 Buildings 2Floors Baghdad 2012	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And Equipment Designing Specifying and Selecting, Such As AHU, Chillers, Air Terminals, Fans...etc.	Air Handling Unit & Fan-Coil Systems Pumps Circulation Air Cooled Chillers
9	Najaf Bus Stations 7 Buildings 2Floors Najef 2011	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And Equipment Designing Specifying and Selecting, Such As Packaged Units, Air Terminals, Fans...etc.	Unitary System, (Packaged Units)
10	Jelod Al-Kofa Factory 1 Buildings 1Floors Baghdad July- 2009	Load Estimation, Designing of A/C Systems (Cooling & Ventilating) Including Ducting And Equipment Designing Specifying and Selecting, Such As Air Washers, Fans, Air Terminals...etc.	Evaporative Cooling (Air Washers)
11	Iraqi Central Bank 3 Buildings 13, 8 & 7 Levels Baghdad January- 2010	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, Piping And equipment Designing Specifying and Selecting, Such As Chillers, Cooling Towers, Pumps, A.H.U., Fans, Air VAV Terminals ..etc.	Single Zone & Multi-zones A.H.U. (VAV) Variable Air Volume Water Cooled Chillers
12	Islamic University 12 Buildings 4Floors Baghdad July- 2009	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And Equipment Designing Specifying and Selecting, Such As Packaged Units, Air Terminals, Fans...etc.	Unitary System, (Packaged Units)
13	Secak Institute Ministry of Transportation 20 Buildings Baghdad June- 2009	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And equipment Designing Specifying and Selecting, Such As Packaged Units, Air Terminals, Fans...etc.	Unitary System, (Packaged Units)

14	Fallujah Funfair (Ministry of Industry) 23 Buildings Fallujah City January- 2009	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And equipment Designing Specifying and Selecting, Such As Packaged Units, Air Terminals, Fans...etc.	Unitary System, (Packaged Units)
15	U.O.T Tower (Ministry of Higher Education & Science. Research) 22 Floors Baghdad, December- 2008	Reviewing Mechanical Design.	Single Zone A.H.U. Constant Air Volume Air Cooled Chillers
16	Ministry of Planning Building (A) 12 Floors Offices And Halls Baghdad July- 2008	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, Piping And equipment Designing Specifying and Selecting, Such As Chillers, Cooling Towers, Pumps, A.H.U., Fans, Air Terminals ..etc.	Single Zone A.H.U. Constant Air Volume Water Cooled Chillers
17	Ministry of Planning Building (B) 8 Floors Offices And Halls Baghdad July- 2008	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, Piping And equipment Designing Specifying and Selecting, Such As Chillers, Cooling Towers, Pumps, A.H.U., Fans, Air Terminals ..etc.	Single Zone A.H.U. Constant Air Volume Water Cooled Chillers
18	Water Directorate B. 5 Floor Offices, Halls, Labs. Babylon January-2008	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, Piping And equipment Designing Specifying and Selecting, Such As Chillers, Pumps, A.H.U., Fans, Air Terminals ..etc.	Single Zone A.H.U. Constant Air Volume Air Cooled Chillers
19	Main Club (Foreign Ministry) 4 Floors Baghdad December- 2008	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And equipment Designing Specifying and Selecting, Such As Packaged Units, Air Terminals, Fans...etc.	Unitary System, (Packaged Units)
20	Al Anbar Municipalities (Ministry of Municipalities & Works) Al Anbar November - 2008	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And equipment Designing Specifying and Selecting, Such As Packaged Units, Air Terminals, Fans...etc.	Unitary System, (Packaged Units)

21	Administration Building (Ministry of Electricity) Baghdad October - 2008	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And equipment Designing Specifying and Selecting, Such As Packaged Units, Air Terminals, Fans...etc.	Unitary System, (Packaged Units)
22	Mansur Shopping Center 11 Floors Mall, Shops, Bank, Apartments, Restaurants, Net Work, Cafeterias. Baghdad September - 2007	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, Piping And equipment Designing Specifying and Selecting, Such As Chillers, Pumps, A.H.U., Fans Coils, Fan, Air Terminals...etc.	Air Handling Unit & Fan-Coil Systems Water Cooled Chillers
23	Hilla Government Build. 4 Floors Offices And Halls Babylon January-2007	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, Piping And equipment Designing Specifying and Selecting, Such As Chillers, Pumps, A.H.U., Fans, Air Terminals ..etc.	Single Zone A.H.U. Constant Air Volume Air Cooled Chillers Split Unit A/C.
24	Main Club Ministry of Water Resources Multi-Purpose Hall,Net Work, Restaurants, Cafeterias..etc. Baghdad March-2007	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And equipment Designing Specifying and Selecting, Such As Packaged Units, Air Terminals, Fans...etc.	Unitary System, (Packaged Units)
25	Emam Ali Hospital 5 Floors Operating Theaters, Patient Halls...etc. Baghdad 2007	Reviewing Mechanical Design. & Superintending	Air Handling Unit. Air Cooled Chillers
26	Rusafa Drinking Water Baghdad 2007	Reviewing Mechanical Design.	Roof Mounted Condensing Units Air Handling Units Air Ventilation System
27	Media Training Institute 5 Floors Offices, Halls, Studios Baghdad July-2006	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, Piping And equipment Designing Specifying and Selecting, Such As Chillers, Pumps, A.H.U., Fans, Air Terminals ..etc.	Single Zone A.H.U. Constant Air Volume Air Cooled Chillers

28	Al-Iraqia Studio 3 Floors Studio, Labs, Offices Baghdad September-2006	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, Piping And equipment Designing Specifying and Selecting, Such As Chillers, Pumps, A.H.U., Fans, Air Terminals ..etc.	Single Zone A.H.U. Constant Air Volume Air Cooled Chillers
29	Dukaan Dam Guest House & Derben. Dam Guest House July-2006	Reviewing Mechanical Design	Unitary System
30	Workshops (Ministry of Electricity) Baghdad December-2006	Load Estimation, Designing of A/C Systems (Cooling & Ventilating) Including Ducting And Equipments Designing Specifying and Selecting, Such As Air Washers, Fans, Air Terminals...etc.	Evaporative Cooling (Air Washers)
31	Laboratories & Guest House Ministry of Water Resources Laboratories, Halls, Offices And Apartments. Baghdad March-2005	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And equipment Designing Specifying and Selecting, Such As Packaged Units, Air Terminals, Fans...etc.	Unitary System, (Packaged Units) & Evaporative Cooling (Air Washers)
32	Bekhma Dam Guest House Multi-Purpose Hall, Net Work, Restaurants And Apartments. Bekhma Dam December-2004	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And Equipment Designing Specifying and Selecting, Such As Packaged Units, Air Terminals, Fans...etc.	Unitary System, (Packaged Units)
33	Students Center University of Technology Multi-Purpose Hall, Net Work, Restaurants, Cafeterias...etc. Baghdad September-2002	Load Estimation, Designing of A/C Systems (Cooling, Heating And Ventilating) Including Ducting, And Equipments Designing Specifying and Selecting, Such As Packaged Units, Air Terminals, Fans...etc.	Unitary System, (Packaged Units)
34	Themar University Themar/ Yemen /2001	Reviewing Mechanical Design.	Unitary System, (Packaged Units)
35	Al-Rahman Mosque Baghdad, 2001	Reviewing Mechanical Design	Air Handling Unit. Water Cooled Chillers