

Education

- 2002-2007** **Ph.D. in Energy Technology**, Royal Institute of Technology (KTH), Stockholm, Sweden
Dissertation: *Experimental Heat Transfer, Pressure Drop and Flow Visualization of R-134a in Vertical Mini/Micro tubes.*
- 1998-2000** **M.Sc. in Sustainable Energy Engineering**, sustainable power generation; Royal Institute of Technology (KTH), Stockholm, Sweden
Thesis: *X-ray Diagnostics of the Melt Jet Fragmentation and Void Fraction Measurement.*
- 1991-1995** **B.Sc. in Nuclear Engineering**, Tripoli University, Tripoli, Libya
Thesis: *Simulation of LMFBR's Nuclear Power Plant and employing Neural Network Control Applications.*

Profile

Has is a Mechanical Engineer with over 20 years of industrial, research and academic experience in Oil & Gas, Refineries, Pharmaceuticals, Utilities and Static Equipment including innovative high performance Heat Exchangers design.

Has developed personal Technical and Project Management skills over Multi-Billion USD International Projects execution experience including FEED, EPC, PMC and Proposal work in Project Management, Design Consultancy, Detailed Engineering, Field Engineering, Construction and Handover.

Key Skills

- Thermodynamic, Heat Transfer and Fluid Flow Technologies
- Utility Packages including Steam/Condensate, Proc./Inst. Air, Proc. and Cooling water.
- Instrumentations and Measurements
- Refrigerating, Heating and Air Conditioning Systems
- Energy Efficiency and Reduction
- Static Equipment and Heat Exchanger Design
- Power Generation and Energy Conversion
- Nuclear Reactor Technology
- Project Management of multi-disciplined teams
- Derivation of Project Scope, Budget, Cost Estimate and Schedule
- Project Definition and Delivery
- Value Engineering and Risk Analysis Project Change Management
- Interface and Tie-in Management
- Pipeline, Offsite and Utilities
- Site Surveys, Installation and Audits
- Contractor Tendering and Management
- Value Engineering and Risk Analysis

Experience

GERMAN JORDANIAN UNIVERSITY, JORDAN

2017 – Present **Assistant Professor/ Exchange Coordinator**

Mechanical Engineering Department, School of Applied Technical Science, German Jordanian University.

AMEC FOSTER WHEELER, UK

2013 – 2016 **MEGA Projects Senior Project Engineer**

*KNPC, Clean Fuel Project, Mina Abdullah Refinery (Project Management Consultant) – Utilities, Interface and Tie-ins **UK/UAE/Kuwait**.*

- Prepare appropriate procedures and standards as required by project's scope of work.
- Facilitate the Technical Queries/RFI, Concession and Waiver Request procedures within the teams in a timely manner.
- Coordinate (30%, 60% and 90%) 3D Model, HAZOP, HAZID and SIL review meetings.
- Develop project specific procedures to enhance project performance; reply procedures for Technical Queries, Concession Requests and Change Requests Proposals.
- Identify, define and expedite resolutions of project related EPC Interfaces issues.
- Support Change Management process including the basis of a contract change.
- Provide information as required for estimating the cost and schedule impact of a contract change.
- Responsible for managing Project Change, raising Change Requests, technical and commercial review of Contractor proposals and scope clarification notices. Responsible for issuing Change Orders.
- Manage technical and commercial evaluation of Contractor change proposals, achieved typically 9% reduction in initial EPC's cost proposals.
- Reviewed Contractor documents, requisitions and Subcontract indexes.
- Attended various Project Management meetings and Issued Action Memos, minutes and manage close-out of actions.
- Familiarisation with the project contractual and commercial requirements. Saudi

*Aramco, Khurais Project (FEED), **UK***

- Responsible for P&ID's, PFD's, Equipment sizing, Plot Plans and other engineering deliverables.
- Manage of Technical Scope across all disciplines. Responsible for scope clarification notices, Technical Queries and Change flags.
- Understands the nature and contributes to the identification and control of Changes.
- Control and forecast work area activities and deliverables against schedule.
- Monitor and advise client of Deviations, Changes and their incorporation into the existing facility.
- Familiarisation of relevant DEPs to support the work. Check deliverables are according to the client/international standards, specifications and procedures.

- Organise, attend, contribute and prepares reports for client review and other multidiscipline meetings.
- Secretary HAZOP meetings and close-out actions.
- Identifying process/scope interface points. Manage consistency and continuity checks and line material specification/breaks & numbers.
- Understand project work sequences in producing deliverables and executing activities.
- Collect actions and responsible for expediting the closure of outstanding actions with engineering disciplines.
- Prepare project and progress reports.
- Liaison with project control and engineering providers making sure that engineering deliverables are completed on time.
- Work directly with Engineering Manager, Project Managers and client. Review and agree client comments.
- Maintain a strong sense of health and safety within the working environment and in the design process and contributes to maintaining the highest of standard.

GSK- PROJECTIVE LTD, UK

2011 – 2013 Senior Project Engineer

Consultant for GlaxoSmithKline (GSK) Global Sites, Utilities & Engineering Services.

- Responsible for definition of projects scope including identification and description of Engineering Deliverables.
- Produce the associated scope of work documents for Tender Package.
- Compiled and formatted Invitation to Tender Packages.
- Manage projects programme, schedule and budget.
- Produce and deliver projects Engineering Design Package.
- Manage P&ID's development and delivery.
- Interface management with design team, clients and contractors.
- Liaise with Contractors on Site interface issues.
- Execute design, selection and sizing of Utilities Packages, Steam/Condensate; Hot, Cooling and Chilled Water, Process and Instrument air, Boilers, Pipes, Pumps, Heat Exchangers.
- Specify of instrumentation and produced equipment, mechanical and electrical schedules.
- Manage contractors on site including H&S management.
- Prepare project documentations, reports and presentations Maintain Health & Safety and environmental protection of the client's site and people under direct control.
- Support the development of project engineers and provide technical expertise to several technical subjects.

Subcontractor at GlaxoSmithKline (GSK) Sites, Energy efficiency specialist, UK

- Carry-out site surveys including utility plants, equipment, installation and operating procedures.
- Identify energy reduction opportunities, proposing renewable energy solutions, and reviewing energy improvements.
- Conduct technical feasibility studies for energy efficiency and environment protection.
- Conduct site/building energy audits covering gas, electricity and water consumptions of refrigeration, HVAC, compressed air, steam, and hot water systems.

SWEP INTERNATIONAL AB, DOVER CORPORATION, SWEDEN**2007 - 2011 Senior R&D Engineer**Various Projects, Sweden.

Responsible for developing innovative design practices which have successfully been applied on new Heat Exchangers design (achieved 15% Cost reduction) using Company's present manufacturing technologies.

- Design new Heat Exchangers and approve their statement of performance certificate.
- Responsible of handling Client Technical Claims and providing mitigations.
- Invent new design technologies utilising mini/micro concept and asymmetric channels matrix applied in SWEP B9, D300, D700 Heat Exchangers - Novel design combines high efficiency, excellent mechanical strength with a minimum of material input.
- Enhance existing product development procedures (Include products market survey and benchmarking data), heat exchanger design tools (improve flow distribution) and optimization and rating codes in company's heat exchanger calculations software.
- Manage company's research and laboratory activities.
- Design and construct new lab rigs, improve existing rigs and enhance data quality.
- Provide technical support to sales and commercial departments to all heat transfer and fluid flow related issues.
- Presenting of new products to client and partners includes products specification, performance optimisation, compatibility and problem troubleshooting.

ROYAL INSTITUTE OF TECHNOLOGY, SWEDEN**2002 – 2007 Research Engineer**Various Industrial Research Projects

Coordinated research projects to advance heat transfer performance utilising compact flow channel for Oil and Gas, Utilities and Cooling of Electronics applications.

- Designed several compact channel heat transfer configurations and conducted thermal performance verification tests on them.
- Developed unique visualization technique and conducted comprehensive flow boiling characteristics study.
- Developed multiphase visualization technique using high energy X-ray high resolution imaging. Developed image processing technique to process the experiential data.
- Published and presented **6 journal papers** and **13 conferences**.
- Invited as reviewer to several ASME Heat Transfer International conferences.
- Consultant on energy efficiency, heat transfer, multi-phase flow and electronics cryogenic coolers related issues for industrial companies.

Teaching AssistantTeaching assistant for the following courses:

- Applied thermodynamics course
- Heat transfer course
- Energy utilization introduction course
- Applied refrigeration and heat pump technology
- Fundamental of multiphase flow and heat transfer

- Responsible for energy utilization Project seminar assignments; Heating demand for a single family residence, Design of heating systems and Design of ventilation systems.
- Labs demonstrator in heat transfer and refrigeration applications as a part of courses in the postgraduate program-MSc degree in Sustainable Energy Engineering.
- Responsible for Energy utilisation course computer labs deals with simulation of refrigeration systems using EES (Engineering Equation Solver); Carnot cycles and efficiencies. The vapour refrigeration process. Heat exchangers. Cooling System Analysis.
- Student project assistant for Fundamental of multiphase flow and heat transfer course.

Earlier Career Highlights

1999 – 2002 Research Engineer, *Royal Institute of Technology*, Sweden

1995 – 1998 Project/Mechanical Engineer, VAOS Ltd oilfield services-*National Oil Company (NOC)*, Libya.

Memberships

- IMechE
- Energy Institute
- ASME
- ASHRAE.

Publications

JOURNAL PAPERS

- Martín-Callizo Claudi, Palm Björn, **Owhaib Wahib** and Rashid Ali, *Flow boiling visualization of R-134a in a vertical channel of small diameter*, ASME Journal of Heat Transfer, Vol132, issue 33, pp. 031503-8, 2010.
- **Owhaib Wahib**, Palm Björn, and Martín-Callizo Claudi, *A visualization study of bubble behavior in saturated flow boiling through a vertical mini-tube*, Heat Transfer Engineering Journal, Vol. 28, pp. 852-860, 2007.
- Martín-Callizo Claudi, Palm Björn, and **Owhaib Wahib.**, *Subcooled flow boiling of R134a in a vertical channel of small diameter*, International Journal of Multiphase Flow, Vol. 33, pp. 822-832, 2007.
- **Owhaib Wahib**, Palm Björn, and Martín-Callizo Claudi, *Flow boiling visualization in a vertical circular Minichannel at high vapor quality*, Experimental Thermal and Fluid Science, Vol. 30, pp. 755-763, 2006.
- **Owhaib Wahib**, Martín-Callizo Claudi, and Palm Björn, *Evaporative heat transfer in vertical circular Microchannels*, Applied Thermal Engineering, Vol. 24, pp. 1241-1253, 2004.
- **Owhaib Wahib** and Palm Björn, *Experimental investigation of single-phase convective heat transfer in circular Microchannels*. Experimental Thermal and Fluid Science, Vol. 28, pp. 105-110, 2004.

CONFERENCE PAPERS

- **Owhaib Wahib**, Palm Björn, Martín-Callizo Claudi, *Two-phase flow pressure drop of R-134a in a vertical circular mini/micro channel*, ASME 6th International Conference on Nanochannels, Microchannels and Minichannels, Danmstadt, Germany, 23-25 June, 2008.
- Martín-Callizo Claudi, Palm Björn, **Owhaib Wahib** and Rashid A., *Flow boiling visualization of R-134a in vertical channel of small diameter*, HT2007, ASME-JSME Thermal Engineering summer Heat Transfer Conference, Vancouver, British Columbia, Canada, 2007.
- Martín-Callizo Claudi, Björn Palm and **Owhaib Wahib**, *Investigation on nucleate boiling incipience in subcooled flow of refrigerant R-134a through narrow channels*, poster presentation at Micro and Nanoscale flows in Glasgow, UK, Dec 2006.
- Celata G.P., Chmiel K., Kulenovic R., Martín-Callizo Claudi, McPhail S., Mertz R., **Owhaib Wahib**, Palm Björn, Sobierska E., Zummo G., *Frictional pressure drop in single-phase flow in narrow channels*, ICNMM06 in Limerick, Ireland, 19-21 June, 2006.
- **Owhaib Wahib**, Palm Björn, and Martín-Callizo Claudi, *A visualization study of bubble behavior in saturated flow boiling through a vertical mini-tube*, ECI International Conference on Boiling Heat Transfer, Spoleto, 7-12 May, 2006.
- **Owhaib Wahib**, Martín-Callizo Claudi, and Palm B., *Flow boiling visualization in a vertical circular Minichannel at high quality*, ECI International Conference on Heat Transfer and Fluid Flow in Microscale, Castelvechio Pascoli, Italy, 25-30 September, 2005.
- Martín-Callizo Claudi, **Owhaib Wahib**, and Palm Björn, *Subcooled flow boiling heat transfer and visualization of R134a in a vertical transparent heated tube of small diameter*, IIR Vicenza, Italy, 31 August-2 September, 2005.
- **Owhaib Wahib**, Martín-Callizo Claudi, and Palm Björn, *Flow boiling visualization and heat transfer in a single vertical microchannel*, 6th World Conference on Experimental Heat Transfer, Fluid Mechanics, and Thermodynamics, Matsushima, Miyagi, Japan, 17-21 April, 2005.
- Martín-Callizo Claudi, **Owhaib Wahib**, and Palm Björn, *Subcooled flow boiling of R134a in a vertical channel of small diameter*, 6th World Conference on Experimental Heat Transfer, Fluid Mechanics, and Thermodynamics, Matsushima, Miyagi, Japan, 17-21 April, 2005.
- **Owhaib Wahib**, Martín-Callizo Claudi, and Palm Björn, *Evaporative heat transfer in a vertical circular microchannel*, the 8th UK national heat transfer, Oxford, UK, 9-10 September, 2003.
- **Owhaib Wahib** and Palm Björn, *Flow boiling heat transfer in a vertical circular microchannel tube*. Preceding of Eurotherm Seminar No. 72, Valencia, Spain, pp. 81-85, 31 March 31 – 2 April, 2003.
- **Owhaib Wahib** and Palm Björn, *Experimental investigation of convective single-phase heat transfer and pressure drop in circular minichannels*. Proceeding CD of the International conference on Zero Leakage Minimum Charge, Stockholm, Sweden, 26-28 August, 2002.
- **Owhaib Wahib** and Palm Björn, *Experimental investigation of single-phase convective heat transfer in circular microchannels*. Proceeding of the International Symposium on Compact Heat Exchangers, Grenoble, France, pp. 101-105, 24 August, 2002.