

# David C Sales FCIPHE MIET

Consulting Engineer, Author & Academic

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**Phone:** 07970 744214

**Date of birth:** 03-05-1955

**Nationality:** British



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## OBJECTIVE

I am an embryo engineer (mechanically biased) having entered the building services industry in 1972 at the young age of 17 years. Since that time I have worked for a useful mix of employers including equipment distributors, private contractors, central government, consultants, Estates/FM managers, property developers, retail stores and even went self-employed as an experience not to be condoned. Since 1997 I have also relentlessly developed an in-depth specialist knowledge of all aspects of underfloor radiant heating. An insatiable thirst for learning, obsession to assimilate, passion for application (trying the untried) and the willingness to impart knowledge are the rock solid "cornerstones" of my career. During the journey thus far I have written/published papers/articles, sat on various institute committees and ascended to elected fellowship level of the CIPHE as well as their expert panel. It is now my aim and objective to specialise in expert witness and forensic engineering work which I have a great passion for. The only thing left finally is to elevate my professional standing even further in becoming Chartered and perhaps write a book. Over time I've accumulated a wealth of contacts and clients which could be put to good use to the benefit of any prospective Client or Employer.

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## EXPERIENCE

Hastings, East Sussex  
2016 - Present

### Consulting Engineer

**David C Sales FCIPHE MIET**

Full state-of-the-art Engineering Consultancy services to the private and public sectors covering, mechanical, electrical, public health and sustainable design. Specialisms in addition are underfloor heating, air conditioning, expert witness and the complexities of facilities and maintenance management. Uponor Approved Engineer.

- Answered calls, responded to emails, and spoke with clients face-to-face.
- Proactively participated in meetings and helped create new practices.
- Consistently met my short and long-term targets.

Dartford, Kent  
2016 - 2016

### Senior Engineer

**GDM Sustainable Design**

Working in project teams, assigned to the detailed design and co-ordination of speculative office blocks in London entailing 4-pipe change-over fan coil unit systems, central risers, specification writing and scheduling of all equipment and main plant etc.

- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Tonbridge, Kent  
2015 - 2016

### Senior Project Engineer (Contract)

**Banyard Consultants**

Detailed design, co-ordination, tender preparation of mechanical services for a mixture of Clients including Kent County Council, London Borough of

Barking & Dagenham, Wates, Morgan Sindall, Osborne, Baxhall, and numerous private clients. Projects have ranged from primary/secondary schools to offices,

flats and luxury high profile residences.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Bournemouth, Dorset  
2015 - 2015

## **Senior Mechanical Engineer (Contract)**

### **Hoare Lea & Partners**

Mechanical services engineer working on a three month temporary contract in a team of 5 engineers designing, detailing and tendering of HVAC systems for various projects including high rise residential buildings in London. Topics covered were regular design team meetings calculations, specifications, schedules, schematics and drawings/sketches for CAD purposes.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Eastbourne, East Sussex

## **Senior Mechanical & Public Health Engineer**

### **Ian White Associates**

Assigned to the design and co-ordinate mechanical and public health engineering services including option studies, feasibility reports, outline concept design schemes, pre-tender budgets, detailed design, tender specifications, utility applications and predicted energy usage/CO2 reduction savings, detailed design, client/architect changes, client facing site meetings, project management, snagging and monitoring of contractors. Projects were mostly in the public sector.

- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

London  
2012 - 2012

## **Senior Mechanical Engineer (Contract)**

### **Atelier Ten**

3 month contract working in a team of Environmental engineers designing mechanical services systems for a large construction project in Doha, Qatar. Comprising of three superblocks totalling 16 no. new buildings covering private residential, offices and retail. Responsible to Principal Mechanical Engineer and Director in undertaking air conditioning, ventilation, chilled water and plant room access/maintenance design layouts plus fully co-ordinated MEP corridor sections up to working/tender drawing stage.

- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

St. Leonards-on-Sea, East Sussex  
1997 - 2012

## **Director**

### **Shimmerheat Ltd**

Undertaking projects for a variety of Clients/sites on all aspects of design, installation, testing and commissioning, fault-finding and troubleshooting, maintenance, consultancy, O & M record documentation etc. on mainly underfloor heating and renewable energy systems as part and parcel of mechanical, electrical and plumbing installations.

- Consistently met my short and long-term targets.
- Handled customer complaints with empathy and composure.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.
- Processed a range of documentation and entered information into databases.

Wells, Somerset  
1995 - 1997

## **Facilities Manager**

### **Pulse Services Ltd**

In overall charge of FM Department and management of 65 no. D.I.Y. retail stores across the South of England as part of a large maintenance contract with Homebase Ltd. The day-to-day front line maintenance management was primarily reactive in nature mixed with quoted works and special projects. Also, manning of out-of-hours help desk.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.
- Processed a range of documentation and entered information into databases.

Walton-on-Thames, Surrey  
1995 - 1995

## **Senior Engineer (Contract)**

### **Doy Webster Partnership**

Engaged on the survey, design, drawing and tender preparation of mechanical/plumbing projects on mainly health care buildings including a complete community hospital redevelopment in Farnham, Surrey.

- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Great Bookham, Surrey  
1994 - 1995

## **Senior Engineer (Contract)**

### **The Bennett Williams Partnership**

Working as an integral member of an M, E & P team on the survey, design, drawing and tender preparation of mechanical/plumbing services to mainly health care buildings although some other interesting commercial sites were encountered such as the upgrade/refurbishment of Dorking Halls, Surrey.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Esher, Surrey  
1994 - 1994

## **Senior Engineer (Contract)**

### **Martin Clowes Associates**

Assigned to preliminary design/feasibility of upgrade alterations to large district heating schemes in connection with community housing projects in readiness for demolition and subsequent redevelopment. Surveys also undertaken for a major retail store chain as a prelude to millennium upgrade/improvements.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Sutton, Surrey  
1993 - 1994

## **Senior Engineer**

### **J Stinton Jones & Partners**

Engaged on the survey, design, drawing and co-ordination of mechanical/plumbing services for tender invitations for a variety of projects including the partial refurbishment of the Sultan of Brunei private residence in Park Lane, London and Midland Bank Centre, Pepys St., London. Also spent some time on site in the role of Resident Supervising Engineer.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Croydon, Surrey  
1992 - 1993

## **Senior Engineer (Contract)**

### **ESL Ltd**

Involved in the survey, design, drawing and tender preparation of a large air conditioning project (offices) for Unipart plc H.O., Cowley, Oxfordshire. Undertook final account negotiations in connection with a car factory project in Lisbon, Portugal together with a detailed condition survey report on an office complex in Frankfurt, Germany.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

London  
1991 - 1992

## **Project Manager (Contract)**

### **MJN Ltd**

Based on site at the European Bank H.Q. in Broadgate, London EC2 floor managing nominated sections of a multi-million pound mechanical and plumbing services contract. Final project was a similar operation for Willis Coroon Insurance H.Q., Tower Hill, London.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Camberley, Surrey  
1990 - 1990

## **Site Manager (Contract)**

### **Ellis Smith & Jones Ltd**

Responsible for day-to-day management of a large design and build multi-services contract valued at £750k for a new golf clubhouse for Shimizu (UK) in conjunction with Panasonic Plc as the Client. Duties were quite varied and demanding with numerous subcontractors to organise.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

London  
1988 - 1990

## **Facilities Engineer (Contract)**

### **Broadgate Estates PLC**

Responsible for own management projects consisting of new build multi-storey speculative office blocks as part of the Broadgate and Ludgate developments. Duties entailed Management and overseeing of all building facilities systems from pre-practical completion/handover stage right up to implementation of maintenance contracts, tenant operation and full operational status of the building as a whole.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Croydon, Surrey  
1984 - 1986

## **Senior Engineer (Contract)**

### **Austen Associates**

Assigned to the design and co-ordination of mechanical/plumbing services for the National Heart & Chest Centre, London and other various health care projects.

- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Thornton Heath, Surrey  
1986 - 1988

## **Contracts Manager**

### **Air Conditioning (London) Ltd**

Reporting to the group Managing Director, duties entailed full operational management of the company at all levels from project inception to handover/final account stage. Sites were varied in the commercial and

industrial sectors. Managed to increase the company turnover three-fold in the first year.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Croydon, Surrey  
1985 - 1986

## Consulting Engineer

### David Sales Associates

Starting in private practice enabled by my wealth of experience and contacts over the years, I was commissioned by a number of mutual Clients to carry out, feasibility studies, budget schemes, preliminary/detailed design, tender preparation, site visits, condition surveys, investigations, advisory reports and expert witness services. Projects included Upper Terrace Lodge, London for a boiler room refurbishment, new ventilation at OBAS (Orthopaedic Bedding Advisory Service), both the Wandsworth and Guildford County Courts.

- Consistently met my short and long-term targets.
- Handled customer complaints with empathy and composure.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.
- Processed a range of documentation and entered information into databases.

Croydon, Surrey  
1982 - 1983

## Senior Engineer

### Longstaff & Shaw Ltd

Working for a design/install contractors designing mechanical services for a variety of projects. The process involved tender preparation, estimating, site surveys and client facing meetings together with workshops. One notable contract was a new office building for Shellabear Price Design in Dorking, Surrey.

- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Chelsea, London  
1982 - 1983

## Senior Engineer

### Michael Auckett Associates

Assigned to the design and co-ordination of environmental engineering services for tender invitation stage relating to mainly speculative/prestigious office buildings characterised by many interesting architectural features such as atria and scenic lifts.

- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Bath, Somerset  
1980 - 1982

## Senior Engineer

### Buro Happold

Actively involved on an extremely interesting spectrum of energy conscious and advanced building projects under the direction of Professor Ted Happold and Dr. Derek Croome both of the School of Architecture & Building Engineering, University of Bath. A project of particular acclaim for the practice was a feasibility study for the Canadian Government involving a complete township under cover by way of an air-supported structure environmentally independent from the outside world and extremes of local climate. Some interaction with undergraduates at the University. Environmental studies at the Royal United Hospital, Bath and Inland Revenue, Taunton undertaken as well as mechanical tender preparation for an Office Block, Medina (Saudi Arabia) and acoustic Study for the Al Mazook Islamic Medical Centre, Kuwait City.

- Consistently met my short and long-term targets.

Croydon, Surrey  
1977 - 1980

- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

## **Established Professional & Technology Officer Grade III (Leading)**

### **Property Services Agency (DoE)**

Sworn into the the Official Secrets Act 1911, worked on the survey, design, drawing and co-ordination mechanical/plumbing services in respect of tender invitations for mainly MoD and RAF Stations both at home and overseas.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

London  
1976 - 1976

## **Draughtsman Engineer**

### **Denco Miller Ltd**

Spent working at the drawing board designing and laying out precision control air conditioning equipment for Computer Suites and Clean Rooms. Two of the many projects were the Gold Weighing Room at the Bank of England and GPO/BT at Martlesham Heath, Ipswich.

- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

London  
1975 - 1977

## **Trainee Engineer**

### **HGS Ltd**

Embarked on a two year traineeship with Humphreys & Glasgow-Sofregaz Ltd. (HGS) which started as a joint venture to convert the UK from town gas to natural gas. It was a calculated move into the petrochemical side of the industry working on offshore oil production platforms in the North Sea for Chevron Petroleum and Shell BP. Also designing ventilations systems for deep sea Caissons and a Fertiliser complex in Russia.

- Consistently met my short and long-term targets.
- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Croydon, Surrey  
1972 - 1975

## **Junior Engineer**

### **Ductwork (Engineering) Systems Ltd**

Embarked on a three year traineeship in all Company departments i.e. contract administration, applications, design engineering and servicing involving Carlyle (Carrier) air conditioning and refrigeration equipment. The projects were quite varied. Lots of time spent designing fan drives and transmission gear.

- Proactively participated in meetings and helped create new practices.
- Answered calls, responded to emails, and spoke with clients face-to-face.

Croydon, Surrey  
1971 - 1972

## **Office Junior**

### **Volkswagen UK**

Positioned as an Office Junior in the Purchasing Department where I assisted in the running of the Stationery Store and requisitioning of stock. Also the printing of circulars and memos in the Print Room. Went to Germany by ferry with the Company to visit the VW factory in Wolfsburg via Hamburg.

- Proactively participated in meetings and helped create new practices.
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## EDUCATION

Croydon  
1977 - 1979

### Higher National Certificate (HNC) in Building (Services)

Croydon College of Design & Technology

Croydon, Surrey  
1977 - 1978

### HNC Supplementary Study in Economics of Industry

Croydon College of Design & Technology

Croydon, Surrey  
1972 - 1974

### City & Guilds No. 632 HVAC Technicians Certificate Part 1 (Passed With Credit)

Croydon College of Design & Technology

Croydon, Surrey  
1974 - 1976

### City & Guilds No. 632 HVAC Technicians Certificate Part 2 (Passed With Credit)

Croydon College of Design & Technology

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## SKILLS

- Design, technical writing, applied air conditioning, microwave space heating, underfloor heating
- Teamwork
- Problem-Solving
- Customer service
- Sales

## REFERENCES

Emeritus Professor Derek Clements-Croome BSc MSc PhD EurEng CEng CPhys FICE FCIBSE FRSA FASHRAE FlntP - Research Director @ University of Reading

Patrick Bellew BSc (Hons) RDI FRENG HON FRIBA FRSA CENG FEI FCIBSE MASHRAE - Principal @ Atelier Ten (A10)

Mike Mapston MSc PDip FCIQB FRSPH FASI MRICS MAPM CEng  
Principal @ Mike Mapston Consulting (MMC)

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## PROJECTS

Air supported covered Township in Ontario, Canada for the government. The size of 17 full-size football pitches it had houses, roadways internal lighting, factory, hospital, shops, school, roadways and landscaping. Following the feasibility study of numerous volumes the project failed because of snow loading and thermofrost.

Ventilation to a Pugmill Building at Atomic Weapons Research Establishment (AWRE), Foulness Island where explosive pugs were manufactured.

National Heart & Chest Centre, London, a new facility for advanced cardiac and thoracic surgery.

Cormorant A and B offshore oil production platforms in the North Sea including helicopter pads.

Gold Weighing Room at the Bank of England fitted with precision air conditioning as manufactured by Denco Miller Ltd.

Extract ventilation to a top secret Photographic Laboratory facilitated at the Procurement Executive Rocket Motor Establishment (PERME), Westcott.

Extract ventilation to a top secret Photographic Laboratory facilitated at the Procurement Executive Rocket Motor Establishment (PERME), Westcott.

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**ACHIEVEMENTS**

Mastering the courage and determination in starting my own Consultancy Practice.

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**CERTIFICATES & COURSES**

GCE O Level English Language 1970

GCE O Level Mathematics 1971

GCE O Level Physics 1975

CSE Technical Drawing 1971

CSE Engineering Studies 1971

CSE Mathematics 1971

CSE Physics 1971

Carlyle (Carrier) Technical Development Program 1972

Trend BMS Operator/Systems Engineering Course 1991

Landis & Gyr BMS Operator/Systems Engineering Course 1992

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**HONOURS & AWARDS**

Burmah Castrol Award 1986 (3rd Place) for submission to the IET of a technical ground-breaking paper entitled, " Microwave Radiant Energy as a Source of Heating for Human Comfort".

IHVE Graduates Diploma 1977

CIBSE Councillor 1977/78

Technical Author of three technical subject papers published in 1977 and 1983.

Guest Speaker at the IDHE Annual Conference 1984 on the subject of Microwave Radiant Energy.

Committee Member CIBSE London & Southeast Region 1984 -1987

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**PUBLICATIONS**

Technical Paper entitled, "Microwave Radiant Energy as a Source of Heating for Human Comfort" as published in the Building Services Engineering Research & Technology (BSER & T) Journal 1983

Technical Article entitled, "Environmental Appraisal of Atria" as published in the Institute of Engineers & Technicians (IET) Journal 1983

Technical Paper entitled, "A Thermal Conspectus of Heat Reclamation Methods Applied in Heating, Ventilating & Refrigeration Systems" as published in the Institution of Heating & Ventilating Engineers (IHVE) Journal 1977

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**DRIVING LICENCE**

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**INTERESTS**

Technical reading and writing, antiques /collectables

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**HOBBIES**

Movies covering western, military, comedy and history. Health, fitness and the Chinese Martial Arts (Kung-fu)