

James Oswald

PROFILE

Twenty years experience in Rolls-Royce Industrial group: gas turbine product design, development and new product strategy. Further ten years experience as gas turbine / power system design consultant. Outstanding technical knowledge combined with excellent presentation skills, business acumen, international experience and ability to assist others in the energy sector. Well regarded for ability to solve challenging technical issues.

Key Achievements:

Engineering consultancy in energy sector

- Provided concept design, development, validation testing of new low carbon technologies and conventional gas turbine plant
- Leader of gas turbine failure teams on numerous investigations (CCGT & Aero-derivative)
- Led team on 1,800MW CCGT performance improvement programme
- International trainer: "Gas turbine failure investigations"

Technical and Business Development of new products in Rolls-Royce plc

- Manager of Advanced Engineering Department
- Head of R&T, Rolls-Royce Industrial and Marine Gas Turbines
- Chief Engineer on Next Generation Gas Turbine project
- Chief Project Engineer – Gas Turbine Inlet Fog Boost
- Chief Project Engineer – Gas Turbine Exhaust Heat Exchangers

Patents: Variable Area Gas Turbine Nozzle, Gas Turbine exhaust heat exchangers (recuperators), gas turbine energy storage, smart energy controller

QUALIFICATIONS

Academic: - BSc (Hons) - Mechanical Engineering
University of Manchester Institute of Science & Technology (1981)

Professional: - Member Institute of Mechanical Engineering

CAREER EXPERIENCE

Consultancy (2003-) *Senior engineering consultant, specialising in design, development and validation of new energy systems*

Engineering system design and development:

- Heat exchangers, energy storage, fossil fuel plant, Fuel Cells, electrolyzers, wind turbines, bio-fuels, tidal and wave energy converters,
- Leader of gas turbine performance improvement programmes.
- Clients: Teesside Power Station, GDF Suez, ITM fuel cells, Babcock Power, Infinis Power, SSE.
- Led teams which successfully explained failures on combined and simple cycle gas turbines
- Training – "Gas Turbine Failure Investigations" UK & S.E.Asia

Business Development and Engineering Manager – Spiral Heat Exchanger, Rolls-Royce, Power Generation (2002 to 2003)

- Responsible for engineering and launch of new gas turbine heat exchanger business

Head of Research and Technology, Rolls-Royce Energy Business (1998 – 2000)

- Managed company's R&T strategy and lead EU projects and funding bids
- Chief Project Engineer: Gas Turbine Inlet Fog Boost

Manager Advanced Engineering, Rolls-Royce Energy Business (1998 – 2001)

- Leader of team designing new engines
- Member of business's product strategy team.
- Chief Engineer of 10 man team designing new engine, USA

Various design and development positions working on gas turbines and nuclear industry:

- Chief Project Engineer: Gas Turbine exhaust heat exchanger
- Principal Design Engineer, Rolls-Royce (1995 – 1998) (*micro turbines, risk analysis specialist, spiral recuperator development*)
- Senior Design / Development Engineer, Rolls-Royce (1991 – 1995) (*Design and validation of variable area power turbine nozzle*)
- Project Design Engineer, Rolls-Royce (1990 – 1991) (*gas turbine failures and hot section design*)
- Senior Design Engineer, Rolls-Royce Business Ventures (1989 – 1990) (*design of gas turbine shafts, bearings, turbine, compressor*)
- Nuclear equipment designer, Rolls-Royce and Associates (1987 – 1989)
- Stress Engineer, Rolls-Royce and Associates (1984 – 1987)
- Design Engineer, GEC Gas Turbines Ltd (1982 – 1984)
- Student Apprentice, GEC Gas Turbines Ltd (1978 – 1982)

Publications:

- The Westinghouse/Rolls-Royce WR-21 Gas Turbine Variable Area Power Turbine design, 1995, ASME 95-GT-54
- A New Durable Gas Turbine Recuperator, 1999, ASME 99-GT-369
- Will British Weather Provide Reliable Electricity? Elsevier, Energy Policy 36 (2008) 3212– 3225

Date of Birth: 1959