

## Professor Adel O. Sharif, CEng, FIChemE

Professor Emeritus of Water Engineering and Renewable Energy

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### Professional Summary

Globally renowned academic and innovator with over **35 years** of leadership in **water desalination, membrane technology, and renewable energy systems**. Pioneered **Forward Osmosis desalination** technology, driving its **commercialisation** through **Modern Water Plc** (raising **£30M** at IPO and achieving a **£70M** market valuation). As **Founder of CORA** (Centre for Osmosis Research and Applications), delivered groundbreaking **water treatment solutions**. Served as **Research Director** at **Qatar Environment and Energy Research Institute**, leading strategic initiatives to address **water security challenges** across the Gulf.

### Key Achievements

- **200+ publications | 25 patents | Over £40M research funding** secured.
- **Honours and Awards:**
  - **The Queen's Anniversary Prize for Water Research** (2012) – Recognising excellence in advancing water treatment technologies.
  - **Royal Society Brian Mercer Senior Award for Innovation** (2005) – Awarded for groundbreaking contributions to desalination and membrane technology.
  - **IChemE Water Award for Excellence and Innovation** (2011) – Celebrating impactful achievements in water supply and management.
  - **Pioneer of the Year** (2018) – World Renewable Energy Council, for leadership in sustainable water and energy solutions.
  - **House of Commons Recognition** – Acknowledged for the societal impact of research in chemical and environmental engineering.
- **Supervised 80+ PhD/MSc students**, fostering the next generation of engineers.
- **Global Collaborations:** Projects across the UK, Gulf, Oman, India, China, and South Africa.

### Professional Experience

#### University of Surrey, UK (1997–2019)

- **Professor Emeritus of Water Engineering & Renewable Energy** (2019–Present)
- **Director, Centre for Osmosis Research & Applications (CORA)** (2003–2019)
  - Founded and developed CORA into a globally recognised hub for **water desalination and membrane technology research**.
  - Spearheaded partnerships with industry leaders to deliver **commercial-scale desalination solutions**, driving innovation from lab to market.
  - Secured substantial research funding and fostered multi-disciplinary collaboration for sustainable water technologies.

#### Qatar Foundation, Qatar (2013–2017)

##### Research Director, Qatar Environment & Energy Research Institute (QEERI)

- Strategically led the **Water Security Grand Challenge**, managing **10+ high-impact projects** addressing water **desalination, treatment, conservation**, and reuse.
- Strengthened cross-sector collaborations across the Gulf region, aligning technological solutions with pressing water security needs.
- Delivered actionable outcomes through pilot-scale research and policy-driven recommendations for sustainable water systems.

#### Modern Water Plc, UK (2006–2013)

##### Founder & Chairman of Technology

- Successfully **commercialised Forward Osmosis desalination**, revolutionising energy-efficient water treatment solutions.
- Achieved **real-world deployments in Oman, India, and China**, demonstrating both technical scalability and market viability.
- Played a pivotal role in raising **£30 million** during the company's IPO, achieving a peak market valuation of **£70 million**.

### Research Expertise

- **Desalination & Water Treatment:** Forward Osmosis for energy-efficient, scalable solutions.
- **Renewable Energy:** Solar thermal, tidal energy & osmotic power

### Education

- **PhD, Chemical Engineering**, University of Wales Swansea, UK (1991)
- **MSc, Advanced Chemical Engineering**, University of Wales Swansea, UK (1989)
- **BSc (Hons), Chemical Engineering**, University of Baghdad, Iraq (1986)

### Publications & Patents

- **Publications:** 200+ peer-reviewed papers ([Google Scholar Link](#)).
  - **Citations** 5508
  - **h-index:** 38
  - **i10-index:** 86
- **Patents:** 25+ inventions in desalination, osmosis energy, and membrane technology.

### Professional Memberships

- Fellow, **Institute of Chemical Engineers (IChemE)**
- Member, **British Royal Society People and Planet Study Group**