# DR AHMED REZK

BSc (Hons), MSc, PhD, CEng, MI-MechE, SFHEA

## **CONTACT DETAILS**

P: +44 (0)7874109103 E: a.rezk@thermainova.com W: www.thermainova.com

### **PROFILE**

An internationally recognised academic consultant, founder, and CEO of Therma-Inova Ltd., a UK engineering innovation consultancy firm enabling technological innovation development and implementation. A well-versed innovator in energy efficiency, sustainability and thermal systems, including renewable cooling and heating. Over 20 years of experience in consultancy and R&D, managing and realising applied projects and supporting businesses in developing and implementing new technologies nationwide and internationally.

#### **EDUCATION**

**PhD in Mechanical Engineering:** Sustainable, thermally powered adsorption refrigeration systems.

University of Birmingham - UK in December 2012.

**MSc in Mechanical Engineering:** Emphasising energy-efficient central HVAC systems using variable speed drives.

Alexandria University - Egypt in May 2008.

**BSc (Hons) in Mechanical Engineering:** First-class Honours.

Alexandria University - Egypt in May 2004.

### PROFESSIONAL MEMBERSHIPS

- Chartered Engineer (CEng) UK Engineering Council.
- Member of the Institute of Mechanical Engineers (MI-IMechE).
- Senior Fellow of the UK Higher Education Academy (SFHEA).

## **R&D PROJECTS**

- Delivered applied R&D projects as a lead with a total value of over £2.2M.
- Supported applied R&D projects with a total value of over £2M.
- All projects have emphasised innovations in renewable-powered systems, energy efficiency and energy recovery.

### **KNOWLEDGE & CREATION**

- Authored over 38 peer-reviewed research articles and two book chapters and authored industrial magazines.
- Developed two patents on advanced thermal systems and materials.
- Keynote speaking at several international conferences and workshops.
- Leading R&D network emphasising renewable-powered cooling technologies.

 Full academic profile: https://research.aston.ac.uk/en/persons/ahmed-rezk

#### **EXPERIENCE**

# Founder & CEO, Therma-Inova Ltd.

February 2023 - present. Therma-Inova is founded on years of experience in engineering consultancy and intensive applied R&D.



Therma-Inova covers an important gap in the industry to become a "one-stop shop" for innovation development and implementing state-of-the-art technological advancement in areas like energy efficiency, sustainability, renewables, deep decarbonisation and waste energy recovery. Since its establishment, Therma-Inova has supported several businesses in meeting their innovation goals and actively assessed the innovation for funding councils.

Therma-Inova is proud to deliver Expert Witness Services to resolve disputes involving energy efficiency, renewables, system failures, regulatory compliance, and sustainability claims, building on years of experience in the field. Several cases are unusual and require intensive research to connect the dots and understand the root cause of the problem, which is our craft.

Therma-Inova Ltd is registered in England and Wales no 1485867. The UK-registered office is at Elliott Road, Birmingham, B29 6GW.

# Universities Senior Academic in the UK, Mechanical Engineering.

November 2017- present.

I lead research on sustainable cooling and heating, energy storage, energy efficiency, and effective renewable energy access, including numerous applied studies. I also provide engineering consulting services to international corporations to support engineering innovation. I also lead the learning and teaching of thermal-fluid science and renewables. Acted as postgraduate programme director.

# University Research Fellow in the UK, Mechanical Engineering.

February 2015 - November 2017.

I conducted industrial research on energy efficiency in the automotive sector, including off-road Powertrain electrification.

# University Academic in the Middle East, Mechanical Engineering.

January 2013 - February 2015.

Lead teaching and research in undergraduate and postgraduate thermal-fluid sciences and renewable energy courses. I also undertake engineering consultancy for international corporations.

## Researcher and consultant Engineer.

June 2004 - December 2012

My research focused on sustainable cooling and engineering consultancy for HVAC and fire suppression systems, including designing new systems.