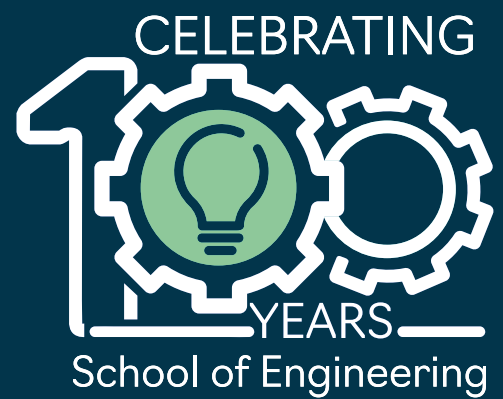


100 Years of Engineering at the University of Aberdeen



10 October 2024

Programme

10:00	Welcome and Refreshments
10:30-10:40	Opening Address Professor Ekaterina Pavlovskaja, Head of School and Professor George Boyne, Principal, University of Aberdeen
10:40-11:00	The Influence of Electrical and Electronic Engineering in the 100 Years of Engineering at the University Professor John Watson, Emeritus Professor of Optical Engineering, University of Aberdeen
11:00-11:45	Engineering the Future: Navigating Equitable Innovation Professor Raffaella Ocone, Institute of GeoEnergy Engineering, Heriot-Watt University
11:45-12:30	The story of Brinker Technology Professor Ian McEwan, University of Aberdeen Alumnus
12:30-14:00	Refreshments and Networking Lunch
14:00-14:45	How my Aberdeen University Education Benefitted My Engineering Career Dr Ramsey Fraser, University of Aberdeen Alumnus
14:45-15:15	Refreshments
15:15-16:00	AI and Engineering: Friends or Foes? Ms Nassima Brown – AREG Board Member and Co-Founder and Strategy Director of Fennex Ltd.
16:00-16:10	Introduction to Poster Exhibition Session Professor Edward Chadwick, Director of Research of the School of Engineering
16:10-17:30	Drinks Reception and Poster Exhibition

Speakers

Professor John Watson

John Watson is Emeritus Professor of Optical Engineering at the University of Aberdeen. He joined the University in 1984 after spells at the UKAEA Dounreay Nuclear Establishment and Robert Gordon's Institute of Technology (as was).

He spent the next 40 years or so researching and developing applications of laser technology in the subsea and oceanic environment. This included subsea welding, optical image processing and underwater holography. His optical engineering research group performed the first simulated laser weld to a pressure of 50 psi (equivalent depth of 500 m). The group has designed and built several underwater holographic cameras starting with "holomar" in the late 1990's to the current digital holocamera – "weeHolocam", which is one of the most advanced of its type.

Professor Watson has chaired several conferences across his field including two prestigious IEEE OES OCEANS Conferences in 2007, 2017 that will return to Aberdeen in 2027.

He was appointed to a personal Chair in 2004, converted to an established Chair of Electrical Engineering in 2008 and retired (sort of) in 2016. He is a Fellow of IEEE, IET and IoP.

Professor Raffaella Ocone

OBE, FEng, FRSE

Raffaella holds degrees from the Università di Napoli, Italy, and Princeton University, USA. She is the Chair of Chemical Engineering at Heriot-Watt University, UK, and a Guest Professor at Ruhr University Bochum, Germany. Currently, she serves as the Deputy President of the Institution of Chemical Engineers (IChemE) and will become the 84th President in 2025.

In 2007, Raffaella was honoured with the title of Cavaliere by the President of the Italian Republic.

In 2019, she was recognised as one of the top 100 Most Influential Women in the Engineering Sector by Inclusive Boards, in partnership with the Financial Times.

In 2017, she became the inaugural "Caroline Herschel Visiting Professor" in Engineering at Ruhr University Bochum, Germany, in recognition of her contributions to engineering ethics.

Raffaella's research primarily focuses on modelling multiphase reactive systems, with a particular emphasis on developing responsible technologies in the energy sector. Her current work centres on advancing low-carbon hydrogen production.



Speakers

Professor Ian McEwan FEng, FRSE

Ian first came to the School of Engineering in 1984 straight off the train from Inverness. He left in 2008 to be a Church of Scotland minister in Glasgow after a career as undergraduate, postgraduate and academic.

He is a Fellow of the Royal Society of Edinburgh, the Royal Academy of Engineering and was awarded the Princess Royal Silver Medal of the Royal Academy of Engineering "recognising an outstanding and demonstrated personal contribution to UK engineering."

Dr Ramsey Fraser BSc, PhD, CEng, FIStructE

Ramsay is a Chartered Structural Engineer with 42 years' experience in offshore structures, including roles as Chief Engineer for a design contractor, global Technical Director for a consultant, and 10 years as BP's global Senior Advisor for offshore structures.

He has a wide range of experience including practical construction and installation engineering, conceptual design, detail engineering design, nonlinear structural analysis, reliability-based design and risk-informed design.

Nassima Brown

Nassima is an engineer and the Co-founder and Strategy Director of Fennex, where she leads a team of experts in developing AI-powered solutions to enhance safety and sustainability in high-risk industries.

With a strong engineering background, she has built a successful career in the oil, gas, and offshore energy sectors across Europe, Africa, and the Americas, spearheading world-class well construction projects.

Her expertise in drilling engineering and offshore operations drives Fennex's innovative approach to solving complex industry problems through digital transformation. Nassima also serves on the board of AREG, advocating for Scotland's transition to renewable energy.



A Brief History of Engineering at the University of Aberdeen

The School of Engineering traces its foundation back to the establishment of the Department of Engineering with the appointment of William Blackadder as the first Professor of Engineering on 4 May 1923. Prof Blackadder held a DSc from Edinburgh and prior to his appointment at Aberdeen, he lectured in the department of mechanics at the Royal Technical College in Glasgow, a predecessor of the University of Strathclyde. The appointment of Prof. Blackadder was followed up by the establishment of the Jackson Chair in Engineering in 1924.

The first degree programme, a BSc Engineering, appeared in the 1926-27 University calendar and over the coming years, the department offered degrees in mechanical, civil and electrical engineering. Teaching at the time was conducted in conjunction with Robert Gordon's Technical College.

William Blackadder served as head of the department until his death in 1940. As engineers were in short supply during the Second World War, the post was not

filled until 1946, when Prof Jack Allen was appointed to the Jackson Chair of Engineering. Prof Allen's appointment heralded the beginning of a strong tradition in civil engineering hydraulics in Aberdeen.

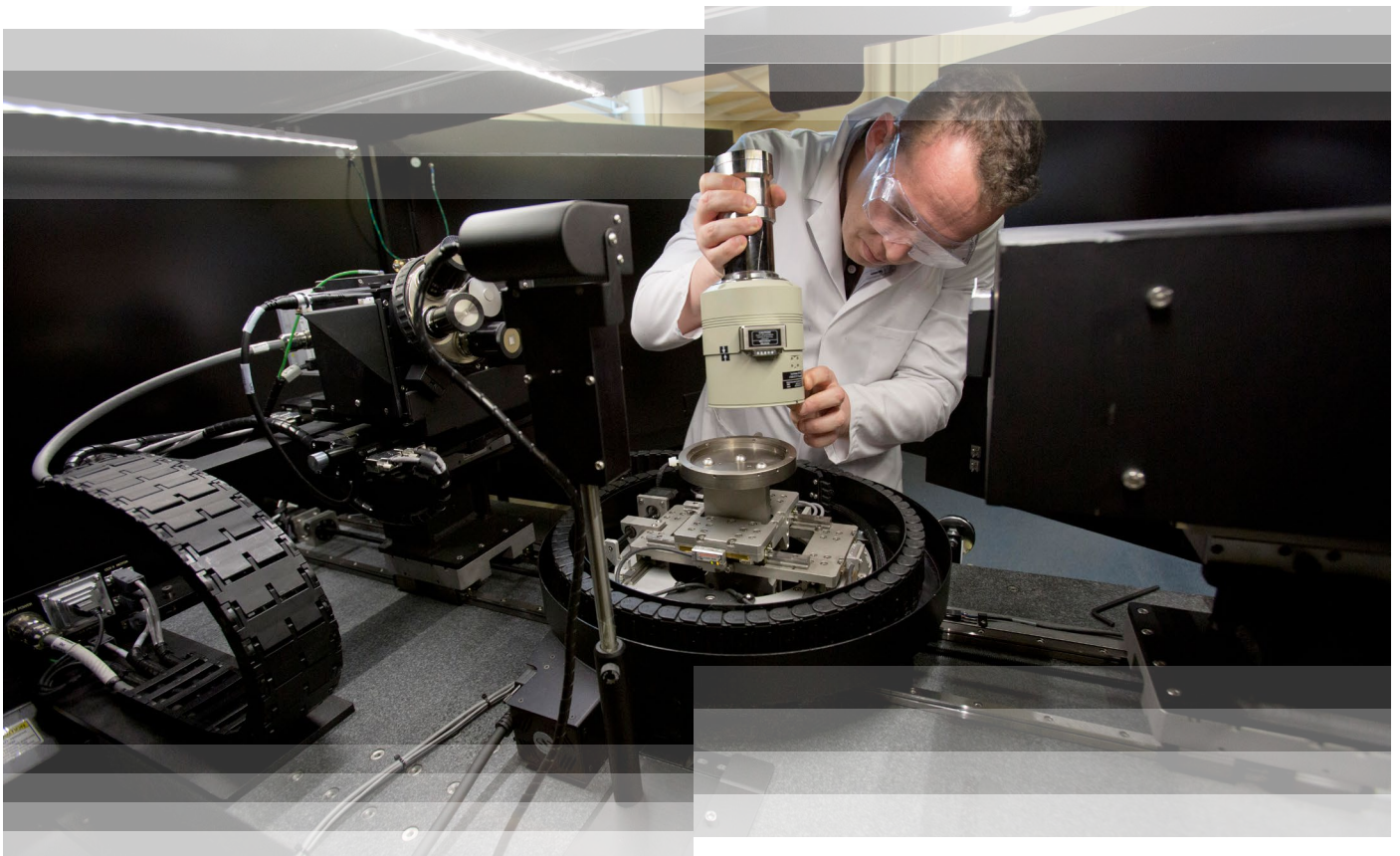
One of the most fondly remembered academics of the post-war era was the world-renowned physicist Reginald Victor (RV) Jones, who served as Professor of Natural Philosophy from 1946 until his retirement in 1981. Professor Jones played a critical role in the defence of Britain during the Second World War and was renowned for his enthusiastic lectures and lively scientific demonstrations. His memory is honoured to this day through the RV Jones Distinguished Lecture Series, an annual series of public lectures given by distinguished engineers and scientists organised by the School of Engineering.

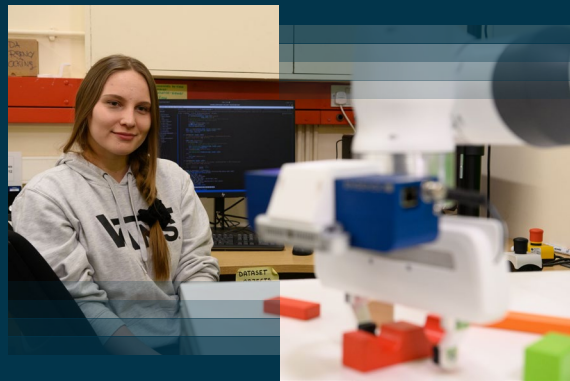
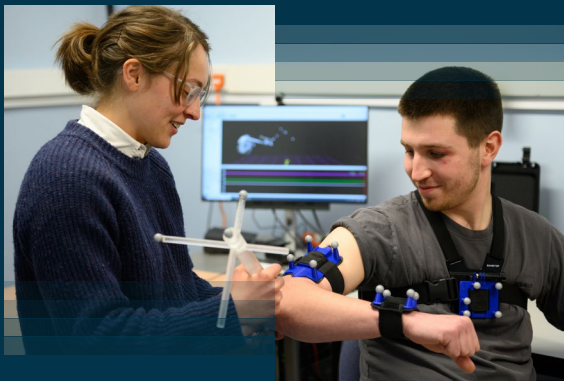
In 1983, The School began the process of moving from its premises in Marischal College to the Kings College campus in Old Aberdeen, where it remains today.

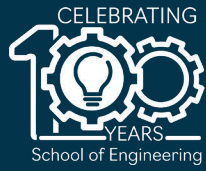
Looking to the Future

Today the School of Engineering is internationally recognised as a centre of excellence in teaching and research, particularly in relation to net zero and sustainable energy sources. The School has also expanded into other branches of engineering including biomedical engineering, robotics, and AI.

At the heart of each of our disciplines lies a passion for using creativity to design solutions to the complex technological, economic, environmental, and social challenges we face today. Building on the interdisciplinary ethos of the School, we continue to foster strong multi-disciplinary links across the entire range of our teaching and research.









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