

**JAMES CLERK MAXWELL FOUNDATION**

**ANNUAL REPORT and ACCOUNTS SUMMARY**

**Year ended 31 December 2020**

# **JAMES CLERK MAXWELL FOUNDATION**

(Scottish Charity Number SC 015003)

## **Trustees' Annual Report and Summary Accounts for the year ended 31 December 2020**

### **HONORARY PATRON**

Professor Peter Higgs CH FRS FRSE

### **TRUSTEES**

Dr Alan Walker, MBE Hon Dhc FInstP ARCS (Chairman)

Professor T. Alastair Gillespie, BA PhD HonDSc FRSE (Past Chair)

Professor Peter M. Grant, OBE PhD Hon Dhc HonDEng HonDEng LFIEEE FREng FRSE (Joint Secretary)

Mrs Catherine M. Booth, MA PgDip DipMolSci (Joint Secretary)

Dr John W. Arthur, BSc PhD FInstP FIET FREng FRSE (Curator)

Professor Dugald B. Duncan, BSc PhD FIMA (IT Committee Chair, Website Master)

David O. Forfar, MA FFA MMath DipStats FSS FIMA CMath FRSE (Visit Coordinator)

Dr Richard C. Dougal, BSc PhD CPhys FInstP (to April 2020)

Dr Isobel Falconer, MA PhD

Dr Iain A. B. Lindsay, BSc PhD (to March 2020)

Professor Malcolm S. Longair, CBE BSc MA PhD HonLLD FRS FRSE (to April 2020)

Professor Roland A. Paxton, MBE MSc PhD HonDEng CEng FICE FRSE

Dr James C. Rautio, BSEE MS PhD FIEEE

Dr John S. Reid, PhD FInstP CPhys MLitt FRAS FRMetS (to April 2020)

Professor John F. Roulston, OBE DEng HonDSc FREng FRSE (to April 2020)

Professor Alan C. Shotter, BSc ARCS DPhil CPhys FInstP FRSE (Outreach Committee Chair)

Benjamin J. P. Thomson, CBE BSc FRSE

Treasurer: Daniel O'Hara BSc, CA, IMC

### **Contact address**

James Clerk Maxwell Foundation, 14 India Street, Edinburgh, EH3 6EZ.

### **Recruitment and appointment of Trustees**

Trustees are selected from suitably qualified persons who have an interest in the works of James Clerk Maxwell.

### **Governing document**

Deed of Declaration of Trust (registered 11 February 1977).

### **Charitable purposes**

As set out in Deed of Declaration of Trust, 4th Schedule.

### **Activities and achievements**

See Trustees' Report for the year ended 31 December 2020.

### **Reserves**

At 31 December 2020 the Foundation had bank account funds of £45,726 plus investments valued at £97,099 giving a total reserve of £142,825.

## **Trustees' Report for the year ended 31 December 2020**

### **TRUSTEES AND FRIENDS**

The Foundation noted with regret the resignation as trustee during 2020 of Dr Richard C. Dougal, Dr Iain A. B. Lindsay, Professor Malcolm S. Longair, Dr John S. Reid and Professor John F. Roulston. Further we noted with sadness the death late in 2020 of David S. Ritchie, our honorary president and longstanding former trustee who, as Director of Development, was instrumental in securing the funding to enable our purchase of 14 India Street, Maxwell's birthplace, in 1993.

### **THE YEAR 2020**

The Covid virus outbreak resulted in 2020 being a very unusual year. The initial lockdown forced the museum to close to visitors in mid-March and further it precipitated the loss of our major tenant, Gravitare, in late June. This reduced our income necessitating a reduction in our charitable donations and it initiated the need for a thorough refurbishment of the second floor office space to enable us to attract and secure a replacement tenant. In spite of the significant improvements made, we expect that it will be many months yet before this comes to fruition and our finances for 2021 will have to be shaped accordingly.

### **TRUST DEED**

Over the year the Trustees reviewed, with the assistance of Adrian Bell of Morton Fraser LLP, several versions of a more up to date Foundation Trust Deed with the intention to seek to replace our original 1977 Trust Deed. Our proposed new deed is based on a model one, which was readily accessible at the Charity Commissioners WWW site. The new Trust Deed will have updated Standing Orders covering the three committees: Property, Information Technology; and Outreach and, further, we define the requirements for appointment as: Fellows; Friends; and Ambassadors. The Foundation agreed to update this deed, in collaboration with the Scottish Universities Summer School in Physics (SUSSP), as they also require a new trust deed. Following agreement on our new Foundation deed, it can then be readily edited and simplified to meet the SUSSP requirements. The legal costs are to be shared for the benefit of both charities.

When we converged and agreed on a final version, this was emailed to OSCR by Adrian Bell in July 2020 for their comments and their response was received in October 2020. Adrian answered the points raised and on 31 December 2020 he sent in minor corrections and we then arranged to hold an EGM on 1 February 2021 to approve, in principle, the adoption of the new 2021 Trust Deed. OSCR further agreed that we require to formally apply to reorganise our charity and all charities seeking reorganisation in Scotland must advertise their intention to do so. The publication period for the James Clerk Maxwell Foundation proposed reorganisation ran from 05 January 2021 for 28 days and the last date for the receipt of objections by OSCR was 15 February 2021. No substantive comments were received from OSCR. A copy of the Deed was sent to each Trustee for signature in March 2021, and the signed counterparts will be collated by Adrian Bell to produce the final version, and will enable the formal adoption of the 2021 Trust Deed.

### **CHARITABLE GRANTS AWARDED**

This year, due to our reduced income, these had to be reduced to only:

- Maxwell Prize (awarded with the Mackinnon Macneill Trust) to Helen Taylor and Joshua Brumpton outstanding University students in science/engineering from the West of Scotland.
- University of Edinburgh PhD studentship support for Robert Lung.
- Support for the 2021 Edinburgh International Science Festival.
- Support for the Scottish Mathematics Masterclass.

- Edinburgh Academy Maxwell Science Prize.

## **UPKEEP OF THE HOUSE**

Following the departure in June of our long-term tenants, Gravitare, we have appointed FT Linden as our agent to assist us in seeking a new commercial tenant. Linden recommended an extensive renovation of our second floor offices which was coordinated by the Trustees seeking quotes. A total of £9,563 was spent on the upkeep of 14 India Street, of which £4,769 was on the upgrade of the décor, flooring and lighting on the second floor. Following extensive refurbishment in 2019 of the basement flat, 14A, this was successfully let out in February 2020 with an increase in rent.

## **FINANCIAL POSITION**

The statement of accounts for the year ended 31 December 2020 shows an overall income of £34,153 (predominantly rental) including donations totalling £2,403. Our total expenditure of £29,909, included the above charitable donations totalling £4,050, but was dominated by major expenditure of £9,563 (referenced to above) predominantly to maintain the property and included the upgrade of the second floor rooms between tenancies. Foundation development and outreach of £568 for the newsletter production, mailing and web hosting was also included here. Further governance and professional fees, including insurance and council tax, of £7,608 gave a net surplus of £4,244. The value of our investments at the year end increased significantly to £97,099.

In summary the balance of our reserves, over 2020, has increased from £102,310 to £142,825 due to the loss of the tenancy, careful control of expenditure and very significant increase in the valuation of our investments.

## **NEWSLETTERS**

We published again two Newsletters again during the year.

- Spring 2020: “Maxwell’s contribution to Standardising the Unit of Electrical Resistance” by Peter Grant (Trustee) and John Thompson from the School of Engineering at the University of Edinburgh.
- Winter 2020: “New Electromagnetic Surface Waves - Voigt Surface Waves” by Tom MacKay, School of Mathematics, University of Edinburgh along with a tribute to David Ritchie by the Trustees.

Some 200 emails go to interested persons advising that a new Newsletter is on our website and some 50 hard copies are mailed to interested parties such as the Royal Society of Edinburgh, key University Departments etc. It is appreciated by the Foundation that the printing of the Newsletters (which are also available on our website) was undertaken, pro bono, by LEONARDO, Crewe Toll Edinburgh.

## **TRUSTEE PRESENTATIONS AND PUBLICATIONS**

- Lomond Probus Club, Drymen, 6 February, to 50 attendees delivered by Prof Peter Grant

The following Foundation Newsletter articles have been republished in the IEEE Microwave Theory and Techniques (MTT) Society Magazine receiving circulation to their 10,000 members:

- July 2020 - A visit to Einstein's House
- September 2020 - Is the Universe Teeming with Life, or is Life on Earth Unique
- January 2021 - Maxwell on Physical Standards

One of our Trustees, James Rautio, published a reprint of Campbell and Garnett, "Life of James Clerk Maxwell", where he converted the original to text, proofread and reformatted and, further, incorporated additional modern material. This is available from Amazon at: [The Life of James Clerk Maxwell \(Illustrated\): Amazon.co.uk: Campbell LL.D., Lewis, Garnett M.A., William, Rautio Ph.D., James C.: 9798618455046: Books](https://www.amazon.co.uk/Campbell-LL-D-Lewis-Garnett-M-A-William-Rautio-Ph-D-James-C-9798618455046-books/dp/B000APR004) for the paper back version and at: [The Life of James Clerk Maxwell \(Illustrated\) eBook: Campbell, Lewis, Garnett, William, Rautio, James: Amazon.co.uk: Kindle Store](https://www.amazon.co.uk/Campbell-Lewis-Garnett-William-Rautio-James/dp/B000APR004) for the Kindle Reader version.

## **MUSEUM UPGRADES**

This year, there was very limited further work on the exhibits, as Trustees' effort was concentrated on securing the required property refurbishment.

## **SCHOOL VISITS**

We have invited more local secondary schools to arrange to visit our museum, as and when Covid restrictions permit.

## **MUSEUM VISITS**

To make better use of the limited Trustee time available to host our museum visits we continued to open the Museum by appointment on either a Tuesday or Wednesday afternoon each week, if requested, but this was curtailed by the Covid outbreak. We were still able to host a few requested museum visits for 22 visitors in the period January to March, before the Covid lockdown took effect.