

# Imperial Technicians a Brief History

Technicians Network Summer Event

# Imperial College London

Model of a linear motion mechanism,  
Numbered '625 153'.

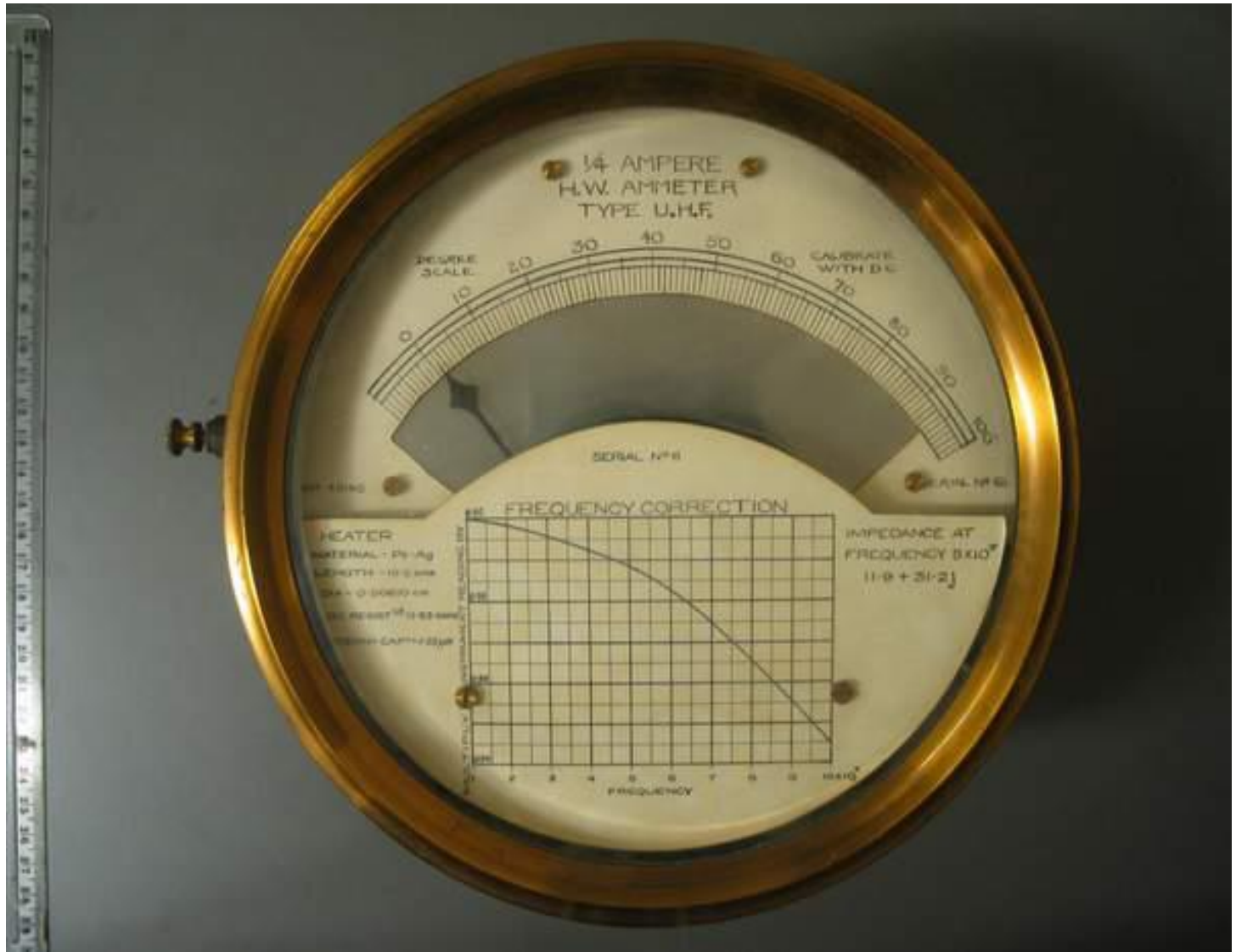


# Imperial Technicians A Brief History



Polarised relay ?, marked 'Te Ry 5, City &  
Guilds (Eng) College EED'

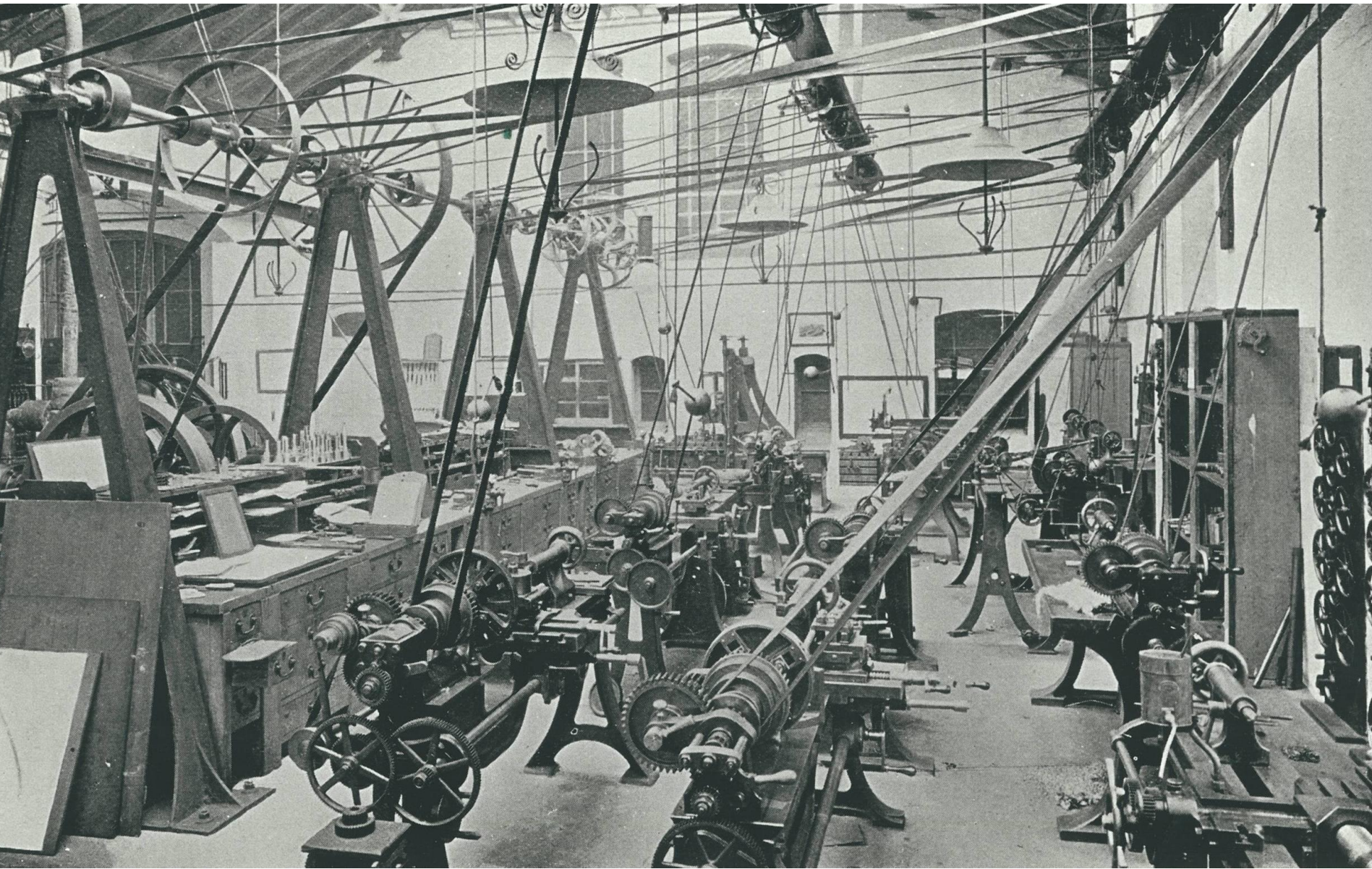
Hot wire ammeter,  
0-100 degree scale,  
Type UHF, Serial  
No. 6, Frequency  
correction graph,  
Pt-Ag heater,  
marked  
SA 25 and  
MA 124 Room  
203, Designed  
and made in the  
College by Prof C.L.  
Fortesque and  
Mr C.R. Owen  
probably  
in early 1930's





Drift Chamber  
Prototype for a  
particle tracking  
detector the  
CERN ALEPH  
Project in the  
Large Electron  
Positron Collider  
LEP.

Wires 40cm long  
– the actual  
detector, built in  
the Physics  
Department was  
2m long and  
extended to a  
diameter of 0.5m



Engineering Workshops Old City and Guilds Building 1909

IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY.  
ORGANIC CHEMISTRY DEPARTMENT.  
SOUTH KENSINGTON,  
LONDON, S.W. 7.

Department of Organic Chemistry.

IMPORTANT.

My attention has been drawn repeatedly during the past few weeks to the excessive consumption of Water and Electricity in the Research Laboratories, particularly at night.

Water pumps and condensers must be turned off on every possible occasion. It is not permitted to leave water pumps running over night except with the permission of the Supervisor of your work or Mr. Schubert.

For your information one water pump left on for 10 hours costs sixpence.

All lights must be switched off when not in use. When working late with few people in the laboratories, the use of lights must be restricted to the immediate vicinity of your bench.

The general ventilation fan in the Whiffen Laboratory will be switched off at 6 p.m. each day by the laboratory staff. If it is required after this time it becomes the responsibility of the particular person switching it on to arrange for it to be cut off when finished with.

Fume cupboard fans must not be left on overnight without good reason.

A signed notice must be left near to any experiment left on overnight involving gas, water, electricity and steam. If this is not done your experiment may be turned off.

Your co-operation in these matters is earnestly requested. Should there be no improvement in the near future I shall be reluctantly forced to institute a system of fines for services carelessly used. (I feel confident that every endeavour will be made to effect an improvement in the near future).

24.2.59.

*J. H. Phillips*

IMPORTANT

The attention of research workers in the Organic Laboratories is drawn to the following points.

(1) The difficulties of a chemical investigation are increased enormously by untidy or slovenly methods of working; it is essential therefore to work in an orderly manner and to keep clean the laboratory bench and apparatus, including that in general use.

Research workers should make a practice of cleaning apparatus immediately after use, as otherwise tarry bye-products are prone to harden and adhere in such a manner as to become exceedingly difficult to remove. The nature of the cleansing agent will vary according to circumstances, sulphuric acid being used to remove basic matter and also many resinous substances, alkalies for acidic or phenolic substances. A little hot toluene or xylene usually dissolves or softens resinous and other organic materials which are insoluble in acid and alkali. Should these fail, the use of crude concentrated sulphuric acid containing a little sodium bichromate is recommended. It should be remembered that burns with bichromate mixture have often very serious effects.

The cleaning of glass apparatus should be completed by washing with plenty of water followed by draining on the racks provided.

Before leaving each night, or when work is interrupted, every burner must be turned out and water shut off, except such as are required for particular experiments which have to be left on. This rule is imperative in the interests of safety and economy. Electric lights must be turned off whenever they are not required. Water pumps must not be left running continuously during slow filtrations, and they should always be used as economically as possible.

When it is necessary to leave an experiment on overnight the worker must take all possible precautions and must be satisfied that the risk of fire and flooding is effectively eliminated. In particular:-

1. A clear signed notice must be left for the watchman, indicating that the experiment is to be left on.
2. Rubber tubing leading to burners must be wrapped with asbestos near to the burner.



Leslie Croker and Pals Chemistry Department on a bicycle

IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY

OFFICE: PRINCE CONSORT ROAD  
Telephone - - KENSINGTON 4861

SOUTH KENSINGTON  
LONDON - S.W.7

CONFIDENTIAL.

To All Heads of Departments.


WAR EMERGENCY.

A circular was sent on 3rd January, asking for a statement of inflammable liquids. On consideration of this statement it has been found that the stocks of such liquids are so comparatively small throughout the College that it would probably be cheaper to destroy them, or deal with them in some similar way, in case of emergency, rather than to go to the expense of digging a trench for their reception.

Heads of Departments are therefore asked to make arrangements for the disposal of inflammable liquids, in case of emergency, in a manner similar to that adopted for the College Stores.

In the Stores the list of inflammable and dangerous chemicals has been marked as follows:-

- S = Disposal via drains.
- D = Destroy otherwise.
- D<sub>1</sub> = Burn in motor-cars.  
(Benzene, Rectified Spirit,  
Absolute Alcohol, Petroleum Ether, etc.)
- D<sub>2</sub> = Burn in the open.  
(Amyl Acetate, Acetone Rect., Aniline, etc.)
- D<sub>3</sub> = Blow off to atmosphere.  
(Gas in cylinders, etc.).
- D<sub>4</sub> = Evaporate in the open.  
(Ether, Chloroform, etc.).
- D<sub>5</sub> = Burn in boiler fire.  
(Sodium Metal).



Secretary.

7. 3. 39.





Leslie Croker in the car and George Bristow on the bike Chemistry Department

2950  
KC15

VISIT OF UNIVERSITY COLLEGE SOCIETY OF TECHNICIANS.

WEDNESDAY, MAY 21st 1947.

Dear Mr  
Mrs  
Miss

We shall be grateful if you will please note the following arrangements that have been made in connection with the above meeting.

The meeting will be held in the Departments of Chemistry and Physics of the Royal College of Science, Imperial College, Imperial Institute Road, S.W.7. Visitors should enter the College by the main entrance and proceed to the Royal College of Science Refractory which is the first room on the left-hand side of the left-hand ground floor corridor.

The time-table is as follows:

6-15 p.m.	Tea
6-45 p.m.	Tour of the Departments of Chemistry and Physics.
7-15 p.m.	Lecture by Dr. A.S.C. Lawrence, Sc.D., F.R.I entitled "COAL AND OIL".
8-00 p.m.	End of meeting.

The Temporary Committee wish to thank you for your prompt response and would like you to know that there has been a very substantial measure of support for the meeting.

Looking forward to seeing you on WEDNESDAY, MAY 21st, and to a successful meeting which we hope will lead to others of a similar character in the near future.

I beg to remain,

Yours faithfully,

F. G. CONSTERDINE

(for Temporary Committee)

## TECHNICIANS WORKING COMMITTEE.

### Minutes.

A meeting of the Working Committee was held in the Staff Common Room at 4.30 p.m. on Tuesday, 30 May 1950.

Present: Mr. G. C. Lowry (in the Chair), Prof. Levy, Prof. Saunders, Mr. Croker, Mr. Brett, Mr. Cutt, Mr. Davies, Mr. Gee, Mr. Fairbrother, and Mr. Corin.

Prof. Dannatt was ill and unable to attend, and Mr. Hart had left the College and had not been replaced on the Committee.

1. Draft Rules. After consideration of the Draft constitution of the Working Committee (previously circulated), the Committee agreed to postpone a decision until further experience of its working had been gained.
2. Minutes. It was agreed that minutes of the meetings should be maintained, Messrs. Fairbrother and Corin to agree a draft for circulation as soon as possible after each meeting.
3. Training of Technicians. As the Board of Studies was due to decide on 31 May upon its nominations to an 'ad hoc' Committee constituted to consider in consultation with the Technician Staff's representations the setting up of an appropriate Training Scheme, the Committee agreed that further action was unnecessary, and that recommendations to the Training Scheme Committee would be out of place.
4. Departmental Vacancies. After discussion of the working of the present system, the Committee agreed that copies of notices about vacancies should be sent to the Secretary of the Non-Teaching Staff Canteen Committee for exhibition in the Canteen.
5. Salary-Scales, etc. Mr. Lowry explained the manner in which the constituent Colleges of London University had each to prepare its own budget for the approval of the University, and stated possible financial reasons why different Colleges might be able to back-date for varying periods such innovations as an increased scale of Family Allowance for certain categories of staff. He explained, too, the 'pros' and 'cons' of the present system of 'Quinquennial Estimates,' which might at times prove less flexible than many would wish to see them. The question was one which was under high-level consideration at University level and even higher; and the College would clearly have to take account of possible increases in salary scales when considering its next quinquennial Estimates.
6. After further discussion, it was agreed:-
  - (a) that the matter should be reopened at a meeting in November.
  - (b) that the Technician staff should ask Mr. Corin for any factual information needed on present salary scales.
  - (c) that any proposed alterations in salary scales might properly be discussed in advance in the Working Committee so that their effects might be estimated.
  - (d) that any requests for increased salary scales might properly be brought to the Governing Body's notice through the Working Committee.
7. Sports and Social Club. The Committee agreed to recommend to the governing Body that no objection be raised to the association of the name 'Imperial College' with whatever title the Technician Staff decided to give to their projected club.
8. The replies to the recent circular numbered so far 2006 out of 450 issued, 174 being in favour and 26 against the proposal. All but 13 of those in favour agreed to a moderate annual subscription.

9. The Committee agreed that the Club might stake its claim to the room beyond the Canteen.
10. The Committee agreed to postpone consideration of the tentative request that the Governing Body should be asked to assist the club financially, e.g. in the having of a pitch in Hyde Park for football or cricket. Mr. Gee promised further details before the next meeting. Mr. Lowry said that the question of borrowing pitches and equipment at Harlington was a matter for discussion with the Athletic Ground Committee, members of which had in the past always been very helpful.
11. Mr. Gee sought authority to tell his Sub-Committee that the Committee and the Governing Body would be generally sympathetic towards the project; and the Committee agreed that he could safely give such an assurance.
12. Next Meeting. The Committee agreed that the next meeting should be at 4.30 p.m. on 1 November, unless unseen developments rendered an earlier meeting advisable.



Leslie Croker at his retirement function

*B. C. Hilling*

**UNIVERSITY TECHNICAL STAFFS**

**M A N U A L**  
**ON**  
**IMPLEMENTATION**

as jointly agreed between

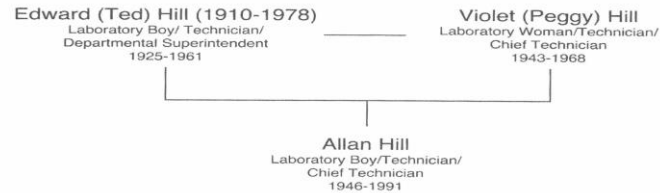
Universities' Committee for Non-  
teaching Staffs

and

Association of Scientific,  
Technical & Managerial Staffs,  
National Union of Public Employees,  
Amalgamated Union of Engineering  
Workers.

**APRIL 1972**

**The Hill Family Total of 116 Years' Service  
to the Geology Department**



**The Hill Family**

**Mr Edward (Ted) John Hill**

Laboratory Boy paid 15 Shillings a week 1925.  
Chief Technician 1946.  
Departmental Superintendent 1961–1970.  
Co-founder and Chairman Technicians Holland  
Club 1968.  
Chaps Club member.  
A keen apiarist and during WWII, placed two hives  
on RSM Building roof.



**Mrs Violet (Peggy) Hill**

First Woman Technician Geology Department.

**Quote**

Professor Read (Head of Department) asked me one  
day how I was getting on, he said:  
“You know you are the first woman to work in the  
Department in a technical capacity”.  
Temporary Laboratory Woman at £2 10s per week 1943.



Technician in charge of Ore Polishing 1966.  
Chief Technician 1966–1968.

**Allan Hill, son of Ted and Peggy**

Laboratory Boy 1946–1947 at 25 shillings a week;  
General technician 1947–1959; Senior Technician  
Petrology 1959–1970 — curation of mineralogy  
and petrology collections and controller of this  
sections — 70,000 logged and labelled over the  
years. Chief technician 1970–1991 took early  
retirement.



Source: A History of the Geology Department Imperial College 1958–1988. Mary  
Pugh (Department Administrative Staff).

Technical Staff Training Scheme  
in Geological Techniques

Department of Geology  
Imperial College of Science and Technology  
University of London

Training Course Syllabus and Instructors

MODULE 1	Cartography	Mrs E. Ng Chieng Hin Mr A.R. Brown
MODULE 2	Atomic Absorption	Mrs E.K. Banerjee
MODULE 3	Electron Probe I (Familiarization)	Mr P. Suddaby Mr N. Royall
MODULE 4	Electron Probe II (Operation)	Mr P. Suddaby Mr N. Royall
MODULE 5	Engineering Geology	Mr E.A. Rogers Mr B. Clarke
MODULE 6	Petroleum Geology	Mr R. Rahman Dr R.R.F. Kinghorn
MODULE 7	Photography	Miss G. Lau Mr A. Cash
MODULE 8	Polished Surface Preparation I	Mr B. Foster Miss E. Morris
MODULE 9	Polished Surface Preparation II	Mr B. Foster Miss E. Morris
MODULE 10	Rockcutting I (Thin Rock Section Preparation)	Mr A.R. Jones Mr M.B. Thompson
MODULE 11	Rockcutting II (Advanced & Automation)	Mr A.R. Jones Mr M.B. Thompson
MODULE 12	Scanning Electron Microscopy	Mr P. Grant Mr R. Giddens
MODULE 13	Curating & Basic Maintenance of Optical Instruments	Mr M. Callow Mr A. Hill

# Thank You!

I would be pleased to hear from any of you who have reminiscences or events to re-tell, or items, objects and papers that would find a good home in the College Archives

Contact [a.barrett@imperial.ac.uk](mailto:a.barrett@imperial.ac.uk) ext 48850

---