



Founded in 1949

NEWSPAPER OF IMPERIAL COLLEGE UNION

FREE!

# Felix

No.384.

FRIDAY, 18TH APRIL, 1975.

ICPGG COMMENTS ON ITS . . .

## CVCP SUBMISSION

THE COMMITTEE of Vice-Chancellors and College Principals in response to criticism expressed in certain quarters about postgraduate education decided to set up a study group to look into all aspects of this subject. Although the IC postgraduate group was not asked for a submission, it has been decided to present one anyway, in order to ensure that student opinion was not overlooked.

Proposals were submitted in each of the following areas.

1. The 'support' grant system
2. Supervision and Training
3. Period of study
4. The status of postgraduates
5. Unionisation and Representation
6. Part-time teaching
7. Overseas students

A brief summary of the various sections is presented below:

### 1. The 'support' grant system.

At present research councils award 'support' grants directly to various departments. We felt that a change in the system whereby the research support grant is awarded to the student would improve the status of the PG and encourage supervisors to offer more interesting and viable research projects. The departments would then also find it imperative to provide adequate research facilities.

### 2. Supervision and Training.

Tying a student to one supervisor is not entirely satisfactory especially in the case of academic staff who have too high an administrative workload and other outside commitments. Joint supervision is a possible solution to this problem.

An unnecessarily large number of projects end up being non-viable, due to inadequate prior preparation. In

order to rectify this, we proposed that all projects should be fully discussed at section-3. *Period of Study.*

The increasing complexity of research work demands more

enable the students to utilize their time and ability, more effectively than is the case at present.

should continue to get the necessary financial support.

### 4. The status of postgraduates.

Research work can in general be classified as lying somewhere in a continuum between the very personal project of one research student, and the quasi-research assistantship type of work where the

pensation for limited autonomy. *5. Unionisation and Representation.*

The Student union should serve this purpose but it demonstrably fails. A separate postgraduate union would probably be counter productive. Established trade unions can never really represent all the requirements of postgraduate students. The ICPGG should fulfil this role but in order to increase its effectiveness a sabbatical year should be provided for the Chairman.

In view of the large number of postgraduate students at IC we would like to see separate PG representation on the major College committees.

### 6. Part-time teaching.

There has been a lot of discussion on this topic. It remains the firm policy of ICPGG that PG's engaged in part-time teaching activities should be paid at the economic rate and not considered as cheap labour.

### 7. Overseas Students.

The high proportion of overseas students seems to be causing concern in certain quarters. ICPGG maintains that the benefits of having overseas students outweighs the marginal financial saving that might accrue by a drastic reduction of the number of overseas postgraduates.

\*

In conclusion, some of the earlier proposals might, to some degree, compromise the autonomy of various sections and departments. The benefits which will result are of greater importance than the slight reduction in 'academic freedom'.

## SPECIAL PG ISSUE

sophisticated design, implementation and analysis. In consequence the time required for research work and its writing up has increased considerably over the past few years.

The ICPGG therefore proposes that where an extension is unavoidable, students at meetings before they are presented to the student.

Finally, intensive supervision coupled with more formal training during the initial period of research work would

problem and the strategy for its solution have been externally defined by a supervisor. Most of the work carried out at IC tends to be of the latter type.

In the short term we propose increasing the proportion of PhD research students who are financed as research assistants on realistic salaries, while in the long term a salary structure should be introduced for all research workers taking account of the notion of com-



# EDITORIAL

Michael Williams

AS THE Easter vacation draws to a close and one tries to recollect what has happened during this period, the sentence "nothing has really happened at all" predictably springs to mind. The undergrads are away; the PG's are grinding on with their work as usual; the College is barely ticking over. So why produce a vacation FELIX? You may well ask.

In its twenty-five year history, FELIX has never been produced in the Easter vac until now. So in many respects, this issue can be thought of an experimental pilot scheme. Its success or failure has depended on the response for copy from PG's. I have to thank Tom Abraham, the Chairman of the ICPGG, and all the other contributors for extracting their mature digits and displaying the immense creative writing potential that exists amongst PG's.

*Where have you all been hiding?*

I hope that the concept of FELIX vacation issues will create some interest in PG circles and then possibly develop into the issues of the year where PG's can freely express themselves knowing that what they write will, on the whole be read by just other PG's.

Here, then, is one opportunity whereby PG's can attempt to throw off their 'hyper-apathetic' image.

\*

Nationally, the referendum debate looks as though it is going to get tough and possibly more dirty. As one national newspaper put it recently: what with the anti-market lobby being supported by the Communists, the National Front, Enoch Powell, the IRA, the left wing of the Labour Party and the Trade Unions, the country will undoubtedly vote overwhelmingly 'yes' to the Common Market.

Anxious to contribute to the discussion on this subject, FELIX has joined forces with ICWA's new President, Stella Godfrey, in an effort to present a formal debate within the College. A provisional date has been set for this event and we hope to be able to attract some prominent politicians to speak. It is also hoped to get some students to speak on the debate as well: if there are any PG's interested, ring the FELIX office sometime next week.

# THE JOYS OF JOB HUNTING?

Anon

You must be kidding! Seeking employment is not so much a joy, but much more a way of strife.

What prospects have we, with a degree from IC? Better than average, maybe? We, the job seekers, are desperately trying to sell a commodity in an open-market where prices (salaries) are related to demand. And for most of us, there is a glut in the market. With a first degree,

one can sell one's soul to a prospective employer for a below average standard of living. The employer finds such a buy a real bargain, works for peanuts, partly trained and can fit into many spheres. But what about a higher degree? Those three years as a PG are considered irrelevant to most prospective employers, as work on some 'white elephant' project, though to the college authorities, it is 'academic training'. Not wanting to employ such a person, as they have to pay a higher salary for a PhD degree to someone three years older than a new graduate, they say 'You are too specialized for us'.

Not many PhD's continue to work in the same field but there are those who, removed from reality, wish to continue working in such fields as electrical conduction in gorgonzola or pig-farming in Israel.

Why are we in our present field of work? Perhaps, like me, you were told, "this is the in-field in which to be for a secure job and a bright future". I won't be surprised if the Careers' Advisor is sing-

ing the same tune.

The irony of the problem is that some who could not keep up in this field have dropped out to far better things - good standard of living, secure and interesting jobs, bright future. is, then, this sacrifice worth the agony of facing a tight-fisted employer asking silly questions like, "why do you want to work for us?" or "where do you see yourself in five years from now?" "We'll let you know if we want you!"

Tea-boys and secretaries are paid exorbitant rates and still demand more, while professionals are content to say that they are only working for the enjoyment and not the salary. This attitude only portrays professionals as being eccentrics contemplating their own importance and deprives the recent graduates of getting better deals for themselves.

To add insult to injury, we are even deprived of Unemployment Benefits. To shrug off social responsibility the government has set up the PER, known by the starving unemployed to be a waste of time. Are these the joys to which we once looked forward?

# PG'S & JOBS

K.M. Ibrikian

At the moment most P.G.s are faced with poor job prospects. Most parameters influencing this state of affairs are beyond the P.G.s' power to control. However, the P.G. group is not completely without some means of improving matters. Two things can be done.

First, it may be helpful to try to achieve a higher degree of co-ordination between research activities at College with those of institutions. P.G.s are likely to seek employment at, when they finish their College training. The lack of new posts for University lecturers will mean more science and engineering P.G.s going for jobs in industry or government run establishments. The nature of employment will vary depending on whether the P.G. is an M.Sc. or a Ph.D., in general the former tending to go for development, production or management and the latter for pure or applied research. Future efforts by the P.G. group directed to-

wards this coordination of research activities may help the P.G. find a job by making his college training more readily acceptable to his future employer.

Secondly, support by the P.G. group for more interdepartmental courses can help the situation further. The reason for this is two fold. Firstly, P.G.s often find that by the time they have finished their college training their field of specialisation is no longer important enough for them to continue it somewhere else-hence they have to move to another field. Secondly, overlap between engineering and applied science fields

means the P.G. must have a good general knowledge in these various fields even, though some of this knowledge may not bear directly on his Ph.D. project. The answer lies in organising a series of lectures up to M.Sc. level that can be attended by both M.Sc. and Ph.D. students. An excellent example of this is the interdepartmental M.Sc. course on Science of Materials. The course draws its lecturers from a number of departments and provides a good understanding of the physics, chemistry and metallurgy of materials and their uses in the various engineering fields. P.G.s following the course find they can be flexible enough to move between disciplines. Hence further cooperation between departments in other advanced fields is in the interests of the P.G.



FELIX,  
Newspaper of Imperial  
College Union

Michael J.L. Williams  
Editor

Published by the Editor  
on behalf of the Imperial  
College Union Publications  
Board.

Printed Offset-litho on the  
Union premises.

Thanks to Gill & Ian.

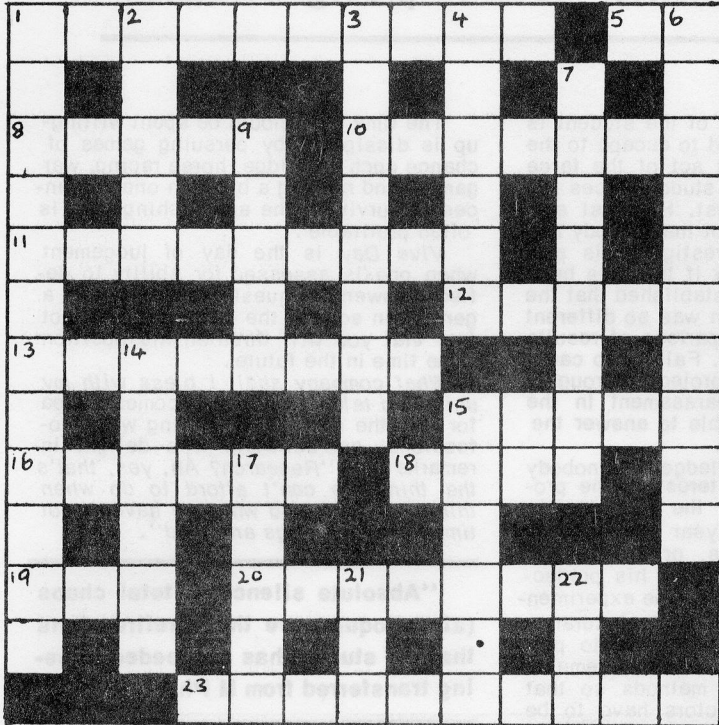
FELIX Office, IC Union,  
Prince Consort Rd, London  
SW7 2BB.

Telephone: Int. 2881  
01-5895111 Ext. 2166

© 1975



# PRIZE CROSSWORD



**Across**

- 1. Where in Latin begins an almost quiet and famous ending (10).
- 5. Home sweet home?)2).
- 8. The final part together with a short bow will give you all (5).
- 10. Vocation (7).
- 11. Part Magic (9).
- 12. A job in a foreign country for bad spellers? (5).
- 15. This boy doesn't bring home the bacon! (5).
- 16. A bad cold? (6).
- 18. Domiciliary edifice (4).
- 19. A diminutive friend of Big Ears (3).
- 20. For effect only (8).
- 23. A very good noise? (10).

**Down**

- 1. No reason to feel doleful (12).
- 2. Origin of P.G. Affairs Officer (5).
- 3. The part time army call an old vase (8).
- 4. Open a canal gate (6).
- 6. I thought of a false gear without me (10).
- 9. More than a man (5).
- 14. Take away the toilet under false pretences (6).
- 15. Men of Iron? (6).
- 17. Mediterranean island (5).
- 21. Beginning of the evening (3).
- 22. A popular pub (3).

£3 Prize Crossword (No 14). Entries must reach the FELIX Office no later than noon next Wednesday. The winning solution will be drawn from the Editor's Hat. The Editor's decision will be final.

# PiG AFFAIRS CORNER

## Tom Abraham

THE RABBLE are away and it sure is nice and peaceful. Much as we would like it to remain that way, I am afraid they will be back next week. However let us enjoy the peace and quiet while it lasts.

Two important events are coming up next term. There is the Postgraduate Group Executive, namely Chairman (who also acts as P.G.A.O.), Secretary and Treasurer, and the not quite so serious business of the Annual Dinner.

First about the elections. As you may have noticed we do not hold these at the same time as the general rabble. Instead, we hold them at the beginning of the third term. The nomination papers will be up the requisite number of days before the Annual General Meeting, with the actual election taking place at this meeting. The job of Chairman can be both interesting and rewarding. It also helps in developing any latent leadership qualities. Any postgraduate who wants to know more about the post should get in touch with me (Int. 3103).

For the first time ever we hope to have a postgraduate annual dinner. There seems to be a great deal of interest in having such a dinner. We hope to organise it for sometime towards the end of the term. Ticket will be available from the departmental postgraduate reps as soon as the details are finalised.

The Postgraduate Group has done fairly well as far as the internal organisation is concerned. We have some strong groups and a few embryo groups in most of the departments. The two major departments when these has not been much activity have been Physics and Mechanical Engineering. While there has been some sort of interest in Physics, the Mechanical Engineers have been steadfast in sticking to their self-proclaimed policy of isolationism. The irony is that on the whole they can be a sociable lot. I am hopeful that something can be done to purge them of their isolationist tendencies.

Relations with IC Union are at a low ebb at present. During my term of office I have tried to liase with the Union and by and large, we have been able to co-operate on most issues. One of the main reasons for this has been Trev Phillips' personal interest in postgraduates. The other union officers, although in some instances sympathetic towards the PG's, seem unable to com-

prehend the many issues facing us. The road forward as far as the Postgraduate Group is concerned would, I believe, lie in taking an independent line. We should be responsible for the interest of the 1600 postgraduates in this college because neither the CCU's nor ICU seem capable of fulfilling such a role. The almost total (except for a few immature PG's) apathy of PG's towards the CCU's cannot be dismissed in terms of the usual student apathy towards unions. Most postgraduates feel that the CCU's are irrelevant as far as they are concerned. I must add that in my personal opinion the CCU's do a goob job in involving the undergraduates in their various activities, but they seem unable or in some cases *uninterested* in encouraging PG participation. There also seems to be some sort of socio-cultural 'age' gap between PG's and undergraduates which both sides tacitly accept, and which neither is interested in bridging. It is therefore essential that the PG Group takes on fully the job of looking after the interests of postgraduates, and force IC Union and the College to recognise and accept it in this role.

Finally there are still many issues to be tackled. The chief among these is obtaining adequate safeguards with regard both to the viability and financing of research work. The fact that the existing situation is pretty grim has to be brought to the notice of the College and academic staff. The recognition of this problem is a necessary prerequisite to finding its solution.



**ANNUAL DINNER**

Friday 2nd May, 7.00 for 7.30, College Block. Principal Guest, Dr Germain Greer, Author of 'The Female Eunuch' Tickets £1.80, from Social Reps or R.C.S.U. Office.

# FRESHERS'

## All clubs should 1975.

# Return a form now

FORMS MAY BE OBTAINED FROM THE LETTERRACK IN THE LOWER LOUNGE





# PG's: A VIEW FROM ABOVE

R.T. SMYTH gives a pragmatic view of postgraduates

BEFORE COMING to Imperial College I spent several years in industry and during that time I came into contact with very few people who possessed post-graduate qualifications. Those I did meet always impressed me with their ability to completely lose me in a technical discussion. This resulted in me believing, as do the vast majority of common folk, that the select few who embellish their name with selections from the alphabet must possess infinite wisdom and ability.

**"(Postgraduates)... extra three years at University ... are aimed at perfecting their ability to ask unanswerable questions?"**

I now know that this is not true for after careful study of PG's I am to reveal the secret play by which all post-graduates are trained to gain immediate advantage over all human beings. Their three extra years at University are not intended as an opportunity for the development of deductive and managerial skills but are aimed at perfecting their ability to ask unanswerable questions. The questions must however relate the one topic with which PG's have exclusive knowledge, ie their thesis.

Unfortunately on completion of his course the PG has only one advantage over the average graduate. This is a profound knowledge of an exclusive and invariably useless area of science, literature history or whatever. The exclusiveness of this knowledge is his only protection against attack by those who may wish to probe his ability. At the same time it remains a powerful weapon for intimidating fellow contestants in the rat race of life.

It is not surprising that when a PG seeks employment he faces the bitter realisation that his extra years at university mean little or nothing to prospective industrial employers. The result is that all too often he seeks further refuge within the University inventing new areas of research that will enable new generations of graduates to achieve a useless degree of exclusiveness.

Examination of the process that changes a bright, keen and potentially useful graduate into a disillusioned post-graduate is very revealing.

**"Here, the supervisor establishes his superiority by being able to "suggest" the most impractical subjects for research."**

Within the first few days of becoming a top 2% man, the softening-up process begins. A secret session takes place between student and supervisor. Here the supervisor establishes his superiority by being able to "suggest" the most impractical subjects for research. Any ideas the student may have for doing worthwhile work are ruthlessly dismissed by a torrent of unanswerable questions.

When indoctrination of the student is complete, he is allowed to escape to the library where the next act of the farce takes place. Here the student faces his first and only real test. He must establish beyond any doubt that nobody has ever attempted to investigate his proposed area of work, or if this has been done then it must be established that the method of investigation was so different that a meaningful comparison of results will never be possible. Failure to carry out this part of the project thoroughly can cause acute embarrassment in the future if someone is able to answer the unanswerable question.

Secure in the knowledge that nobody has ever shown an interest in the proposed area of study, the student then wastes at least one year building his experimental apparatus, or a least rearranging equipment left by his predecessors. The uniqueness of the experimental equipment is the student's insurance policy against possible failure to produce positive results. All measurements are made by indirect methods so that special conversion factors have to be applied before any data becomes comprehensible. Besides maintaining the essential exclusiveness of the work, this has two other advantages. The calibration curves serve as useful padding for the thesis and it becomes almost impossible for the supervisor to check on one's progress.

**"The uniqueness of the experimental equipment is the student's insurance policy against possible failure to produce positive results,"**

During the first two years of his project, the student has time to indulge in a few diversionary pastimes like croquet, squash or chasing the blues on the river. Evenings may be spent in idle gossip about how fast we should dip our paddles in and out for maximum effect. *Very Freudian.*

This idyllic time is however interrupted by the compulsory colloquia. The secret here is to speak in a loud but indistinct voice for fifty minutes, the audience having been totally lost after five minutes otherwise question time can be nasty as rival students and their supervisors try to impress each other by making the speaker appear stupid. Unfortunately this happens all too often and the student who recognises beforehand that he is stupid will lace his talk with red herrings to cause infighting amongst the supervisors. Never a pretty sight. Absolute silence or total chaos are the surefire signs that the student has succeeded in being transferred from M Phil to Ph D.

A frantic collecting of experimental data marks the next stage of the training programme for make-your-mind-up-time is coming. Do you write your thesis now or produce a few extra graphs? A second visit is made to the library to check that nobody else has been stupid enough to do recently published anything related to one's own work.

The time that should be spent writing-up is dissipated by pursuing games of chance such as bridge, horse racing, war games, and running a book on one's chances of surviving the approaching viva is often profitable.

*Viva Day* is the day of judgement when one is assessed for ability to deflect answerable questions and to ask a gentleman so that the examiner need not fear that you will threaten his position some time in the future.

"What company shall I bless with my unlimited talents?" soon becomes a plea for now the student is dealing with professional ego-deflaters who delight in remarks like "Research? Ah, yes, that's the thing we can't afford to do when things are bad, and what we haven't got time for when things are good".

**"Absolute silence or total chaos (at colloquia) are the surefire signs that the student has succeeded in being transferred from M Phil to Ph D."**

In the unlikely event that an offer of employment is made, the salary will be no better than it would be for a graduate and considerably less than a British Rail porter would accept. The reason for this is simple. The employer knows that the student has always existed on a pittance, whilst the porter has not had the benefit of exclusive education to enable him to survive on such a small amount, he obviously requires *more*.

This is the price paid for becoming an exclusive member of society. If nobody understands what the PG knows, how can his value be assessed? What's more, the postgraduate's obvious ability to lose people in technical discussion will win few friends and supporters in the outside world.

## STUDENT HOUSES SUMMER LETTING SCHEME

**A MANAGER AND ASSISTANT MANAGERS** are required for the Summer Letting Scheme in Evelyn Gardens and Ravenscourt Park.

The Manager will be paid £28.00 per week and Assistant Manager £25.00 per week, all with free accommodation and National Insurance Stamp paid by the Scheme. Both the Manager and Assistant Managers will be required to work for the full length of the Scheme - 5th July to 17th September, 1975.

Application forms can be obtained from the Residence Office, Room 161, College Block, and should be returned by 5.00 p.m. Thursday, 1st May. Interviews will be held very shortly afterwards.

This is a full-time job.