

NEW ZEALAND

# Engineering

THE JOURNAL  
OF THE NEW ZEALAND INSTITUTION OF ENGINEERS



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## Specifications:

Type	L290	L690W	L590M	L590W	L690
Lamp	200W, 150W. GLS/ES	500W, 300W. GLS/GES	500W, 300W. GLS/GES	500W 300W. GLS/GES	Lamps: 750W, 1000W, 1500W, 230 volt single phase GLS/GES. 250W, 400W, 230 volt single phase; 700W, 1000W, 400 volt single phase - Mercury vapour/GES. 250W, 400W, 230 volt single phase High Pressure Sodium (G.E. Lucalox). 400W, 230 volt single phase, 1000W, 400 volt two phase - Multi-vapour GES.
Beam Angle	110°	8°	80°	110°	
Diameter	10½ in	18½ in	13¾ in	13¾ in	
Depth	17¾ in	22½ in	23¾ in	23¾ in	
Height	20½ in	26½ in	23½ in	24¼ in	
Weight	5½ lb	11¼ lb	8¼ lb	8¼ lb	

S.A.A. Approval and Test Specification, C100 - 1971, C137 - 1969. For further information contact your nearest National Electric branch or The National Electrical and Engineering Company Ltd. P.O. Box 9749, Wellington.



# N. Z. I. E.

## news section

A supplement to "New Zealand Engineering" sent to all members of the N.Z. Institution of Engineers  
President: E. W. de Lisle, M.Sc.(Hons), C.Eng., F.I.E.E., F.N.Z.I.E.  
Secretary: R. W. K. Stevens, C.B.E.

## The Secretary's Newsletter

### MEMBERSHIP RECORDS

As a part of the process of transferring the Institution's membership records to computer, an effort is being made to make these records as accurate as possible. To this end, members were sent a form on which they were asked to indicate the branch of engineering in which they are currently employed and their field of employment. The return from members was not as good as was hoped—about 60%—and, although some of the gaps can be filled from information already available, the final records will not be as accurate as we would like them to be.

### FORMATION OF THE ELECTRO-TECHNICAL GROUP

Members will recall that some years ago the Council approved the formation of a technical group of the N.Z.I.E. to be called the Electronics Group. For a number of reasons this group never got off the ground, and, after consideration of the replies to a questionnaire circulated to all members in the electrical engineering field, it was decided to widen the scope of the proposed group and cover the whole field of heavy power, light current, and electronic engineering.

Following a general meeting held in Wellington, it became evident that there would be sufficient support to justify the submission to the Council of a request for approval to the formation of a new group. A steering committee was elected, draft rules drawn up, and the requisite signatures obtained.

The Council in due course approved the requisition, the draft rules, and the name of the group—the Electrotechnical Group. A meeting of all members interested in membership of the group will be held during the 1974 N.Z.I.E. conference in February next. At this meeting a management committee will be elected and a programme of activity for 1974 approved in outline.

Members in the electrical engineering field are requested to make a special

point of attending this meeting, the time and place of which will be publicised in the conference programme.

### HAWKE'S BAY BRANCH ACTIVITIES

#### Engineers' discussion group

The following article has been received from the Hawke's Bay branch:

A group of clergymen meeting in Napier, who were concerned about some of the trends in our society, decided to float an experiment with a selected occupational group in Napier. Their concern focused more particularly on the impact of applied technology on people, their environment, and their lives. They decided to convene a small group from a common profession and to ask them to talk about their daily jobs in the widest context, from the national scene down to their personal setting. The group was to be given no directions, no set objective, and an absolute minimum of comment from the initiators, who would sit in the background and observe the outcome. The clergymen chose the engineering profession and approached the few professional engineers known personally to them. The response was satisfactory and a group, initially numbering about eight and expanding for various reasons to about 13, met over lunch on five occasions.

Right from the start, it was clear that the engineers present not only had no difficulty at all in finding common ground in discussion but also that they were worried about technical, political, and social aspects of our society which, as engineers, they felt particularly aware of. All meetings following the first meeting were held voluntarily, and the motivating force was essentially the common force. Discussion was frank and open.

After the second meeting, one of the observers compiled a summary of his impressions which was accepted by all as exceptionally apposite. Part of it is repeated as follows:

"After listening to two discussion sessions, it seems that engineers fall into three broad categories—the optimists, the pessimists, and those who are both. The optimists believe in the power of technology to overcome present human problems and future threats to man's survival. They also believe in the wisdom of engineers and the decision-makers to apply technology for the good of mankind. The pessimists haven't too much faith in technology, and have even less faith in the decision-makers, because of the way they see technology applied.

"In between there is a group who recognise the potency of technology to solve man's problems, but who are pessimistic about actual performance. A number of factors were identified as obstacles to be overcome if in fact technology is to fulfil a saving function in our world, i.e., making possible health and wholeness of life. These were: the compulsive desire for progress (the numbers game); the pressure of population growth; the profit motive of the capitalist system; the innate selfishness (sin) of John Citizen, who always wants more and who lives in a society that encourages him to want more; the inability of individuals and groups in society to make desirable long-term plans and short-term sacrifices; the increasing specialisation of engineers, which reduces a person to a cog in a system and tends to remove him from the centre of decision making; and the failure of engineers as a group to articulate their concerns, to influence public opinion, and to set their work in the context of an ethical system.

"Some seemed to think that bad application of technology cannot be blamed on a particular group of people (e.g., politicians, financiers) or a particular system (consumer-oriented capitalism), but on mysterious demonic forces at work in the total situation. There is some deep distortion in societal values difficult to isolate or define, but nevertheless real.

"The conclusion I would draw from all this is that the technological problem,