

56

The Electrical Engineer and The Community  
A CLARION CALL FOR SENSITIVITY AND LONG TERM INVESTMENT

BY

Engr. (Dr.) S.T. Wara; MNSE, COREN, MNIProde

## Introduction

This paper considers the influence the electrical engineer wills in any community and aims at the following:

- (i) Sensitization of electrical engineers towards self sustenance.
- (ii) The electrical engineer as a job creator.
- (iii) the electrical engineer as an employer.
- (iv) The role of electrical engineers in the creation of cottage industries and long term investments.

The paper hinges its arguments on the commercialization of ideas as a basis for sustenance through long term investments on local technological ideas and the development of cottage industries and indigenous technologies through copy creativity.

## 2. The Engineer and the electrical Engineer

The engineer is that person who by his training and professional experience harnesses physical/natural resources for the provision of facilities for the benefit/comfort of the Society. The electrical engineer, is the live wire of the engineering family as a person or group which gives the required input necessary to drive processes that are aimed for the benefit and comfort of man in the following areas. Health services, transport services (Road, Air, sea), water supply, artificial/purpose lighting, mechanical services (water supply, refrigeration, airconditioning, lifts), power generation, educational services, sewage treatment, entertainment etc. There is hardly any community - human or otherwise in the private, commercial or industrial sector that doesn't benefit from any of

these areas listed above.

### 3. The Society And Their needs

The Society/community in this context will be looked upon as any habitation, institution, colony inhabited or purpose built for a particular function. However, the basic needs remain food, shelter, and clothing. With the geometric rate of population increase, the only way societal needs can be improved upon to balance reasonably demand and supply is by mechanization and automation. The necessary support for these process is by an electrical engineering input without undermining allied field inputs.

### 4. The Scope of Influence of the Electrical Engineer

The scope of the electrical engineer is limitless. His development of drives has increased production processes, his development of heating has enhanced drying, personal comfort and storage, his development of refrigeration and airconditioning has improved trade and personal comfort. Communication, transportation etc has been greatly enhanced by the exploits and advancements in electrical and electronic engineering.

### 5. Utilization of Electrical Energy

Electric energy can be used for various purposes including lighting, heating, drying, driving etc. These have in their own way generate various potential industries to provide various services. These areas have gainfully employed and enhanced the status of many and opportunities abound for expansion.

## E. Cottage Industry

A Cottage is a small country house and an industry is a place where goods and services are produced. We can therefore say that a cottage is a small country establishment where goods are produced or where a certain trade can be learnt. When theory and practice are well blended benefits are derived for the common good of any community and her neighbours.

Engineers are charged with the responsibility to proffer solutions to problems and/or to solve same for the benefit of all.

Very many areas in our communities require enhancement ranging from maintenance, adaptability, repairs to manufacture. These sub-areas can give birth to profitable industries-Cottage Industries.

Consider these processes: Flending, grinding, milling, sawing, heating, arc welding, stabilizing etc. The electrical engineering in them cannot be over emphasized, these processes readily lend themselves in a manufacturing industry for the production of local functional equipment either through copy production, copy creativity or novel/original ideas. Such equipment may find ready use in our educational institution (such as resistive inductor, ear lamps, transformers, drivers etc) food preservation industry (drivers, fridges etc); along our streets (eg. welders, corn mills, wood processing stalls etc) and in our homes (stabilizers, flenders etc). We can thus generate an infinite number of cottage industries by meticulous considering our various needs/problems and applying our engineering skills and practice.

## 7. The Way Forward

A Clarion call is made to all engineers to re-orient their thinking and strategies to salvage themselves and their communities. An engineer by his status is a preferred specie in any community and by his training ranks 'topz'. His social aura, his ability to be comfortable and create comfort has no bound. However, anything that will influence the community positively doesn't come easy. A carefull scouting of our ivory towers will discover abandoned ideas/innovations due mainly to lack of sponsorship for implementation through long/short term investments. Only a group of people with the same ideas/ideals can reason together, cooperate together and propagate themselves. Every thing must not commerce in a big way. Engineers must come together to elevate their status from within before looking out. We have gone past the mastery stage, we must now practicalize our ideas by investing in small scale manufacturing industries or a trade outfit to regenerate and consolidate ourselves.

## 8. Conclusion

Engineers have been employed in the civil service and private sectors of the economy. The Social Status of the engineer has remained a nightmare for a long time particularly for those employed in the civil service. While government is trying its best to better the conditions of service for all, engineers must join hand with government to let this dream come through. This is only possible by creating an effect that will be felt by all. One way to do this is to produce simple, serviceable and applicable units that will serve societal needs. In this way more

money shall go into the pockets of engineers. they shall create jobs for others and they shall influence their communities positively. The Indians. Russian. Korean or the Malavsian experiences can serve as a necessary drive force to awaken our engineering prowess. The enabling environment can be created and by encouraging such schemes will produce useful and beneficial results in our communities.