

Techmen Talk

By Eugene Stanley

QUESTION: What do you believe to be the most undesirable traits in instructors?

Willard Skolnik, Senior EE:

"A great number of the instructors have not had sufficient training to properly present their courses.



They are so bound up by outmoded classical methods of presentation and have such little understanding of the more modern theories and concepts that much of the course time is

spent in the working of inane archaic problems. Hence valuable time that could be used for acquiring the important physical phases of engineering is wasted on trivia."

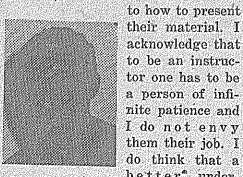
Don Aronson, Graduate Math:

"Faced with a dearth of suitably prepared and scholastically mature students and forced, in most cases, to teach a curriculum which is not logically ordered, it is natural that the ordinary inexperienced graduate student or young instructor offers inferior, or at best, mediocre instruction. Further, the inability of most professors to differentiate between scientific, technical and philosophical notions handicaps the rated, able scholar who wishes to obtain full benefit from his university education."



Robert B. Bell, Soph EE:

"Many instructors, not all by any means, are well versed in their respective fields but seem at a loss as to how to present their material. I acknowledge that to be an instructor one has to be a person of infinite patience and I do not envy them their job. I do think that a better understanding of methods, of presenting material would do much towards the promotion of better instruction. A person is not necessarily qualified to instruct just because he is an expert in a field. I believe that an instructor should spend a great amount of time in learning and practicing how to instruct, which would include methods of preparation of material for student digestion and methods of presentation."



George Doland, Junior EE:

"I think the most undesirable characteristic is the lack of teaching experience. Some instructors know their material well but are unable to put it across. It's also true that some of the instructors are teaching courses when they have never taught before. They don't organize their material well enough to properly allot their lecture time. Sometimes, instructors are distracted by a trivial point which could easily be explained if presented correctly."

"Many instructors fail to speak loud enough for those in the back rows. Some instructors are also guilty of going too fast. It also seems as if there should be better texts for some of the courses. Other instructors are not consistent in the various courses. A greater effort should be placed on using the standard AIEE symbols."

SCC To Ease Meeting Jams

The Student Co-ordination Council was officially introduced to the student organization Thursday. Its aim of getting better attendance at assemblies and club meetings through cooperative scheduling of events was explained at this time.

The meeting was attended by about a hundred students representing almost all of IIT's recognized clubs, societies and activities. Copies of a tentative constitution were distributed and discussed pending a later ratification by the membership of each organization.

Warren Brockmeier opened the meeting with a discussion of the aims of the SCC. Although the bulk of the coordination calendar was referred to the executive committee, Brockmeier made several tentative suggestions, among which was the proposal for all professional society meetings to be held at the same hour and day, since there is no conflict between these organizations. At the same time, this will eliminate conflicts between the professional societies and other clubs, whose meetings will be scheduled on other dates.

Ed Koncel, Bob Cunningham, and Ed Zietz also addressed the group, outlining other functions of the new organization.



Dr. Jesse E. Hobson

Dr. Hobson Resigns Foundation Post

Dr. Jesse E. Hobson has resigned as director of Armour Research Foundation of Illinois Institute of Technology, it was announced last week by Henry T. Heald, president.

Dr. Hobson, professor of electrical engineering at Illinois Tech since 1941 and director of its research foundation since 1944, will become director of the Stanford Research Institute of Stanford University.

He will assume his new duties in March.

Year's Budget Principal Topic At ITSA's First Meeting

Three new student members and one new faculty member participated in the first ITSA meeting of the semester. The new faculty member was John Butkus of the civil engineering department, who replaced Dr. Pearce Davis. The new student members were Harvey Wilson, freshman class president; George Bowman, junior class president; and Bob Guthrie, president of the 4B class.

The 1947-48 budget was the principal topic for discussion. The outlay was found to exceed the income by \$400. Increased publication cost of *Technology News* and *Integral* was the main reason for the increased expense. Possibilities for decreasing costs or increasing funds was discussed. It was agreed to tap the ITSA \$3000 surplus to erase the deficit. This discussion will be continued at the next meeting of the ITSA Wednesday.

A motion was unanimously passed that the Managing Board begin planning the 1949 Integral immediately when the 1948 Integral becomes available.

The budget and outline of activities for Junior Week were presented. Lastly, thirty dollars were appropriated to Rho Epsilon for the purchase of FM equipment.

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DU PONT Digest

For Students of Science and Engineering

Research simplifies print making with development of "Varigam" Paper

Chemists and physicists make important contributions

Photographic film that has been over-exposed or underdeveloped usually means a "hard" or "contrasty" negative—too much silver is deposited on the high-lights in comparison with that in the shadows. The opposite effect, a "soft" or "thin" negative, results from under-exposure or underdevelopment. At one time photographers had to stock four or five grades of enlarging paper to correct for these conditions and get the right degree of contrast.

To eliminate this expensive, unwieldy situation, scientists developed "Varigam" variable contrast photographic paper. With "Varigam," the whole procedure of getting different degrees of contrast is reversed. Instead of using several grades of paper, the photographer uses only one. He gets variation in contrast by use of filters that control the wave lengths of light reaching the paper, thereby getting finer degrees of contrast than are otherwise possible.

The action of "Varigam" depends on the ability of certain dyes to extend the sensitivity of silver halide emulsions beyond the blue and blue-green regions. This effect was well known to scientists. But "Varigam" has an added feature—it gives high contrast in the blue por-

tion of the spectrum and is also sensitive to light in the green region, with low contrast.

"Varigam" the work of many men

The first job was one for the physical chemists. Silver halide emulsions, normally sensitive to blue light, had to be made to give maximum contrast when exposed to light in this region.

It was known that certain dyes would extend the sensitivity of the emulsion over as far as the infra-red. But they were not practical for photographic paper, being affected by the red safety light used in the darkroom. Research by chemists showed that certain dyes such as 1:1'-diethylthiopyrocyanine iodide extended the light sensitivity only to the green region. And, most important, they produced low contrast when used in lower-than-normal concentrations. When such a dye was combined with high-contrast silver halide emulsion, the result was an emulsion that gave high-contrast prints when exposed to blue light, and low-contrast prints when exposed to green light.

Physicists Develop Filters

Physicists made this contrast control a reality by preparing sharp-cutting filters that allow the user to control his printing light selectively. These filters,

which are attached to the lens of the enlarger, range from blue for high contrast to yellow, which cuts out the blue almost entirely and gives low contrast. In between are eight grades of filters with intermediate degrees of blue and yellow light transmission. All of the filters are made in such a way that neither light nor printing time needs to be varied as filters are changed, except the last two on the blue end. These require approximately twice the time of the others.

In "Varigam," made by Du Pont, chemical science has given the photographer new economy and convenience in printing, and a degree of contrast control more precise than is possible with any combination of commercial papers.

Questions College Men ask about working with Du Pont

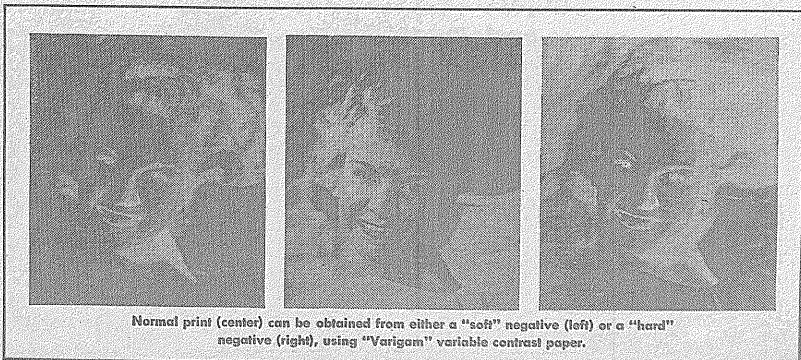
What types of training are needed?

The majority of openings for college graduates at Du Pont are in technical work and are usually in chemical, physical, or biological research; chemical, mechanical, civil, electrical, or industrial engineering. Openings are available from time to time in other fields, including architecture, ceramics, metallurgy, mining, petroleum and textile engineering, geology, mathematics, accounting, law, economics, and journalism. Write for booklet, "The Du Pont Company and the College Graduate," 2521-C Nemours Building, Wilmington 98, Delaware.



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Normal print (center) can be obtained from either a "soft" negative (left) or a "hard" negative (right), using "Varigam" variable contrast paper.

See What Professors Think
Of Students In Next
Week's Issue