



THE SCHOOL OF TECHNOLOGY

TECH NEWS

CITY COLLEGE OF NEW YORK

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222

BY STUDENT FEES

Physics Society Gives Laser Demonstration

By ANTHONY GENNA

On March 8, 1962 the Kollsman Company in cooperation with the City College Physics Society presented a program on Laser operation in the physics lecture room, S105. The lecture room was half filled. A small explosion accompanied by a loud noise slightly moved the students and faculty members. They witnessed the ignition of a cartridge cap by a laser light beam. The lecturer Mr. Seymour Light of the Kollsman Company explained that ignition of caps by a laser beam is for publicity and does not demonstrate any important properties of a laser other than its high concentration of light. Coherence, high intensity and degree of monochromaticity, and slight divergence are the very important properties of a Laser.

HKN Holds Semi-Annual Smoker

On Friday, March 10, Eta Kappa Nu, the Electrical Engineering Honor Society, held its semi-annual smoker. Although the main purpose of the smoker is to provide the membership of H.K.N. with an opportunity to meet the eligible undergraduates, it also serves as an evening of diversified entertainment. As in the past, City College's answer to Victor Borge, Mr. Demos Eitzer, consented to sing a few of his well-known standards. Besides the humorous entertainment which he provided, Mr. Eitzer delivered a stirring speech on what the obligations and benefits of membership in Eta Kappa Nu are.

On Saturday, March 11, elections were held. At that time the following students were elected to pledge: David Behrman, Fred Brodbeck, Reichard Crino, John M. Flynn, Manfred Freund, John George, Philip Hinderstein, Allen Kaufman, Dennis Kirson, Elliot Kohn, Louis Krantz, Jim La Frieda, Marc Mangot, Ronald Meyer, Jacob Miller, Stuart Perlow, Alan Reiter, Tibor Schonfeld, and Dennis Young.

As the Electrical Engineering Honor Society, Eta Kappa Nu, stands as a goal for all E.E. students. A lofty goal perhaps, but an attainable one, as evidenced by the recent election to pledge of the above 19 undergraduates.

Eligibility for membership depends initially on the scholastic record compiled during a student's college career. However, extra-curricular activities, ability to work in harmony with others, and other indications of future success in the profession of Electrical Engineering comprise the membership qualifications.

Some of the present activities that Beta Pi Chapter are en-

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The Ruby Laser displayed in Shepard was a pulsed model. In the near future the Kollsman Company hopes to produce a continuous Laser operating at room temperature. Mr. Light pointed out that the immediate problem is to produce a unit capable of modulating a Laser beam. Once this is accomplished Mr. Light stated that there would be no end to the uses of this unit in communications. As a matter of fact a Laser is capable of carrying all the telephone conversations between New York and California on a single beam.

The Kollsman Company has been experimenting on the use of a Laser as a micro-welding and torch unit. The results have been very good. Clean holes with diameters in the order of mico-inches have been cut in many specimens of metal including stainless steel. This process could be used to produce small exacting apertures for photographic and other scientific apparatus.

Mr. Light emphasized that Lasers could revolutionize the field of surgery. Laser could be used to suture a bleeding vein in the brain. The vein being darker than other brain matter would absorb the heat and become cauterized.

Mr. Light, who from the beginning worked on the Kollsman portable Laser, showed slides of the development and experiments of this unit. The Kollsman Company produced their first portable Laser weighing 48 pounds in 1961. Their latest unit weighs 20 pounds and is now ready for commercial production.

The power supply consists of a series of batteries connected to a high voltage 80 uF condenser. The actual laser source is contained in a two handled gun weighing about 8 pounds.

Mr. Light stated that the two handles and triggers are safety precautions. It is necessary for an operator to have both hands on the gun before energizing and pulsing the unit. Thus accidental firing which could cause serious damage to the eye and body would be avoided.

When Mr. Light was asked what the present practical uses of this unit are, he simply answered, "Nothing at present but it has many future applications." It was pointed out by Mr. Light that this invention is progressing faster than any other invention in history, although it is in its infancy.

Mr. Light implied that within 10 years laser operated units would be in full scale operation, revolutionizing the fields of medicine, communications, radar, tracking and micro-welding.

The CCNY Blood Bank Council, in conjunction with the ARC, is holding its semi-annual Blood Bank drive. It is up to us to give our thanks unselfishly, as we have before, by donating blood. Registration will be held from March 21 to March 30, room 152 Finley. The Blood Bank will be at the School on April 11 in front of Knittle Lounge, North Campus, and on April 12 in front of Bittenweiser Lounge, South Campus.

Carnival Queen Ball Is Planned

This term, on March 31, House Plan Association is again having its annual Carnival Queen Ball. The Carnival Queen Ball is a gala affair that is held in the Grand Ballroom of the Hotel Biltmore for the purpose of choosing five finalists. One of the finalists will be crowned Carnival Queen at a separate affair, the annual Carnival, in May.

Entertainment at the Ball will include a performance by Miss "Roslie," who will sing "Moon River" and other popular songs. There will also be Band Music to dance by. Among those that will be present at this affair to hear Miss "Roslie" are President Gallagher and Dean Peace.

The Ball is open to the whole school including Liberal Arts Students. The cost is \$6.00 per couple and tickets can be bought in room 319 Finley.

If anybody knows a beautiful girl going to City College he may enter her in the contest for the Carnival Queen. Applications are available in room 317 or 326 Finley.

—Eiferman

AIEE-IRE To Present Analog Computer Talk

By BARRY R. HOROWITZ

Students who will attend the AIEE-IRE lecture on Thursday, March 22 (S306) will have the opportunity to hear Mr. George Martin of Electronic Associates present a discussion on Analog Computer Applications. The operation of a completely transistorized analog computer will be demonstrated at this lecture. In addition to the lecture, AIEE-IRE will sponsor a field trip to Electronic Associates' plant and computing center during the Spring Vacation. Information concerning this trip and a trip to the Indian Point Power Plant will be available at this lecture.

The AIEE-IRE lecture series will be highlighted in May by two events. On May 3 and 10, Mr. Irving Meth of the Electrical Engineering Department will present a two-part lecture on Transistor Circuit Design;

Curriculum Changes Met Enthusiastically

By MIKE BUCZACZER

The reaction of most students (upper classmen) to the new curriculum was positive. The new program provides more mathematics and physics and enables the engineering students to take six credits worth of electives. Recent graduates of the

School of Technology were asked their opinions about the changes. Their answers are very pleasing.

Mr. S. Orbach, faculty member of the E.E. Department and a 1959 graduate, remarked, "It is a good idea to cover E.E. topics such as Fourier Analysis, Bessel Functions, etc. in mathematical courses." He is also very pleased that calculus of variable functions, probability, theory of a function of complex variables, and numerical analysis are included in the new math courses. He regrets though, that Modern Algebra is not included.

The Physics courses dealing with the solid state is very useful for E.E. 131. The six credits allowed for electives is a "very good idea." These courses, as well as other Liberal Arts courses should be taken by a student in his (or her) third and fourth year. (or fourth and fifth) "Lower classmen," says Mr. Orbach do not appreciate the value of these courses. When they are seniors they have a better understanding of the importance of the courses. He would like to see a course in Technical writing offered. According to Mr. Orbach, many laboratory reports are written in incorrect English and many students, because of their lack of correct word usage and grammar can not express themselves clearly. In general, he thinks the new program is very good and "may turn out to be one of the finest curriculums in the country."

Mr. Phil Greenberg, former Editor-in-Chief of "Tech News" and now a faculty member of the E.E. department, remarked enthusiastically "very good." He feels that the new changes should have come into effect a few years ago. The new courses, he says, will supply a better understanding to our advancing Technology. People who intend to continue in graduate schools will benefit a lot from those courses. He regrets that a language is not a requirement. "Today's engineer," he said, "should have knowledge of another language in addition to English, preferably Russian. A course in Technical writing and reading comprehension should also be given." He said that students often have trouble analyzing a technical report.

Mr. S. Maurer, N.Y.U. graduate and a faculty member also of the E.E. department, commented similarly as the other gentlemen. He also would like to see a foreign language included in the new curriculum.

A recent mechanical engineering graduate (who wishes to remain anonymous) stated the following opinion which is representative of several graduates that we have interviewed, "I

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ASCE Term Goals Set

ASCE is once again on its way in enjoying a full and varied program. The range of activities will include athletic and social as well as technical endeavors.

The athletic program was kicked off with a close touchdown victory (6-4) over ASME. The winning touchdown coming on a spectacular reception and run by ASCE ace, Frank Costa. The athletic program will continue with two more Sports Days in the spring, where they will stand ready to play all challenges to their newly won title.

On the social side, it was refreshments and conversation at the semi annual Smoker held at Delta Alpha house. The length of which still seems to be a function of the amount of free beer available. This term Induction Dance will exhibit some changes. The dance, to be held March 23 will feature the professional entertainment of Mr. Conrad Butler and his Twisted Twisters. It has also been learned that the students have openly challenged the Civil Engineering Faculty to top their newly planned spectacular skit. This term's skit is rumored to be the best in

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At present the Control Systems Laboratory houses two small analog computers. The open loop gain of the amplifiers in these computers is in the order of ten thousand. A larger and more accurate analog computer, with an open loop gain of its amplifiers of approximately one hundred million, is being built by Electronic Associates Incorporated for installation on the sixth floor of the new Technology Building. The computer is the PACE — 231R basic unit and expansion console. A total of 60 operational amplifiers and

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Editorial Policy of TECH NEWS is determined by a majority vote of the Editorial Board

Control of Fees...

A proposal has been suggested that Student Government be given the power to administer the funds of the Student Newspapers. Feelings as to the merit of the above suggestion have been mixed mainly because most people think that Student Government should be given the power of administering all student activity fees, and that the specific mention of newspapers seems to imply an indirect form of censorship of the newspapers thru the control of the "purse-strings." We feel that the wording of the proposal is definitely suggestive and in the form it now stands it should be defeated. The idea that, showing a justification of trust given by the school administration, by having successfully administered the newspapers for several terms will lead to eventual control of all student fees is baseless. One could surely argue that SG could regulate the historical societies or the philosophy societies to demonstrate the validity of the basis of the trust as effectively as the regulation of the newspapers.

It is our opinion that Student Government should be given the power of regulating all student fees. However it is also felt that the judgement of appeals should be thru a Student-Faculty Committee. Perhaps Student Government Officials should look into the expenditure of \$5 of the Bursar's Fee for a Student Center. We note that the fee nowhere mentions Finley Student Center. Monies from this category should be spent not only on Finley Student Center but in addition on North Campus lounge facilities.

Teacher Unions?

The United Federation of Teachers, a union of high school and junior high school teachers, has been "looking into" the possibility of increasing the scope of their membership to include the City University Faculty. This in addition to the recent strikes by engineering unions has been the final blow that the professional man can take. We feel that the unionization of the professional is definitely not warranted. Soon we expect to hear of unions for doctors, lawyers, dentists, etc. If a professional is to maintain his "professional status," that which distinguishes between the educated and labor, he must not allow himself to fall into the pitfalls of a union. There is no need for collective bargaining because what sets aside a professional man from a laborer is his individuality and his ability to think as individuals. His very strength lies in his individuality and to submit to unionization would tap his source of "professionalism."

AIEE-IRE Hears Talk On Voltage Measurement

On Thursday, March 15, Dr. Endel Uiga, Chief Engineer at Ballantine Laboratories, spoke to 150 students at a joint meeting of the AIEE-IRE. The lecture was titled "Which VTVM for the Job?" Dr. Uiga was graduated from the University of Stuttgart, in Germany, and has been both an instructor and a Design Engineer before accepting his present position with Ballantine.

Dr. Uiga described the voltmeter as a 'black box,' containing such factors as accuracy, life, and repeatability. He suggested that a meter be rated by uncertainty rather than accuracy. This is logical because the greater deviation in accuracy, the greater the uncertainty. For example, a meter rated at 5% accuracy is bound to be less accurate or the reading more uncertain than one labeled as 1% accuracy.

With the aid of projected notes, the lecturer explained the linear scale, log scale, and digital voltmeters. He brought out that the log scale voltmeter features the same accuracy at every point on the scale, due to the manner in which the magnetic flux is distributed. The linear scale voltmeter is considerably more inaccurate (uncertain) at the low end of the scale.

Dr. Uiga pointed out that Ballantine manufactures only log scale meters, and his preference might be influenced by this.

The peak responding, average responding, and rms responding meters were discussed. It is important to know the crest factor, E_{pk}/E_{rms} , and the form factor, E_{rms}/E_{ave} , of the wave-shape being measured, due to the fact that all three types of meters are calibrated to the sine wave, and cannot distinguish between the sine, and another shape wave. The sine wave has a crest factor of 1.414 and a form factor of 1.11. He gave as an example the square wave, of value unity, where $E_{pk}=E_{rms}=E_{ave}$. If all three meters read out rms, the peak responding meter will indicate .707, and the average responding meter will read out 1.11. However, the rms responding meter will give the truest reading, especially if it is one with a high crest factor.

Various errors that might be present in a voltmeter were described with the aid of projected circuits and graphs. It was interesting to note that the meter with the highest input resistance might be inferior to a meter with lower inputs resistance, due to the effect of the capacitance that shunts this resistance. In order to choose the VTVM that best suits a particular job, the magnitude of this capacitance must be known. This is especially true at high frequencies.

Other errors include the harmful result of high temperatures, and the normal aging of components.

—Loth

TECH LIFE

By TED SEMEGHAN



At the start of the term I was told by a professor that an edition of K. G. Denbigh's, "Chemical Equilibrium" which sold for many years at nine dollars in the cloth hard cover edition was now in paperback at 1/3 the price. — \$2.95. Not realizing at the time why such a book could sell for 1/3 the price after selling at the higher price, and too broke to ask why, I let my questions relax until last week.

Then, I went down and spoke to the publishers of the book, and interviewed Mr. Ronald Mannsbridge, the manager of the American Branch of Cambridge University Press. By this time I had found out the naive idea of putting a cloth book into paperback as a way of reducing the price was way off the track, and I asked Mr. Mannsbridge why this book was lowered in price.

He first showed me that the cost of a book is determined by at least these four factors:

- 1) Editorial preparation
- 2) Type and composition and additional initial costs
- 3) Royalties
- 4) Advertising

The editorial preparation and printing set up (type and composition) is very costly and is more than fifty per cent of the initial cost of the book. Setting up type for scientific and mathematical texts is an extremely difficult chore. Mr. Mannsbridge said that the diagrams and charts and mathematical symbols require specially skilled workers since such work cannot be done by the typesetting machines. The wages for such skills are even higher than the already high union wages for typesetters. The first hint on the reduction of book costs is the ability to use the type over and over again once it is set, with only printing costs as an expense.

Royalties for hard cover books are about fifteen per cent and if a nine dollar book is sold, the author receives one dollar and thirty-five cents. But in the case of paperbacks, the royalties may be six cents for a dollar sale. A typical case of selling rates nevertheless shows that most authors would be richer with a paperback edition. Over a period of twenty years, a hard cover book of a Physics text on radiation sold only 100 copies, yet in only a few short years in paperback it sold several thousand copies at \$2.95, (one-half the original price).

Now you have seen that printing costs are high, and soft cover books sell more editions than hard cover books since they are less expensive to the reader, but you haven't read anything so far that you didn't know.

It will seem apparent that as the initial costs are paid for, the publishers will only make profits. Another staggering fact! The type for the book though, is already set and no extra costs will be incurred in printing a thousand copies of the edition in paperback. (Printing costs are small compared to composition and make-up). Then the publisher, after paying off the initial outlay, will start on a paperback market.

Now the original naive question of making hard cover books into soft cover books to reduce prices can be answered easily. The hard cover (cloth) is not a major expense. A cloth cover costs about fifty cents to a dollar and a paper cover costs approximately twenty cents. (Even cheaper paper covers cost five and ten cents.) but this does not reduce the price of a book by six dollars.

The original high priced editions are due to the initial publishing costs and as soon as they are paid for and the publisher knows he has a market for the book, he'll start printing a paperback edition. He will then set a price at the going market rate and publish indefinitely with the same type he used for the hard cover book.

A final question you might ask is why they don't start printing all books, especially my scientific texts, in paperback right away. The answer is that this is now being done, but only in the area of novels and non-fiction by top personalities, etc. But this is a risky procedure and if the market for a book is not there, a big loss will result. New scientific texts can become obsolete, even before the first day of selling, therefore, only mathematic and scientific books in great demand or with a possibility of a long life in the market have a chance of paperback editions and less expensive prices.

The future:

More references on science and engineering topics (take a look at the College Bookstore shelves) in paperback and maybe a bearable first week at school — on your "pocketbook."

ASCE...

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years and may take the form of a hilarious motion picture.

To fill the intellectual voids, a series of technical lectures have been programmed for the Thursday 12-2 breaks. They will vary in content from Construction in Southern Europe to the Engineering Problems in Traffic.

Influence Lines, the ASCE student chapter magazine, will be published at the end of March and will have the accent placed on College Humor.

WANTED

(ALIVE)

REWARDS!

WRITERS
PHOTOGRAPHERS
CARTOONISTS
TYPISTS

IF FOUND CONTACT

TECH NEWS

F335

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Computer...

(Continued from Page 1)

80 coefficient potentiometers will be incorporated into the two units. The following features earmark this computer:

1. The basic console is a self contained computer which may be expanded by the addition of plug in units.
2. Operating controls are centrally grouped for ease of operation.
3. All active computing elements are removable from the front panel.

4. Critical computing components are housed in a controlled oven (Accuracy of solution is less than 1% and as good as 0.1%). This will require an air conditioned room so that the computer may operate at a constant ambient temperature).

This computer will make use of diode function generators which play a significant role in the simulation of non-linear phenomena such as hysteresis in magnetic materials and backlash in gears. An automatic X-Y plotter which plots one d-c voltage signal as a function of a second d-c voltage signal on an 11" x 17" plotting surface will be employed as the readout mechanism for this system. Because the pen and not the paper moves, a family of curves may be plotted on one sheet of paper.

The computer will be used in conjunction with the EE 170 Lab (Control System Laboratory) and will also be made available to Graduate Students and to the entire Faculty for use in research.

Computing equipment may be divided into two categories: digital and analog. A digital computer counts and obeys logic rules exactly, whereas the analog computer operates by representing the variables of the problem by physical quantities easily generated or controlled, such as shaft rotations or electrical voltages.

Analog computers may be divided into two types: general purpose and special purpose—planimeters, computing bomb-sights, wind tunnels, etc. We shall deal only with the more flexible general purpose analog computer. The general purpose computer can be sub-divided into two classes: the direct or physical analog and the indirect or mathematical analog computer. The direct or physical analog computer is based on the analogy between the R-L-C circuit and mechanical damping, etc. Simulation is difficult with this type of computer because of the absence of ideal elements in the form of physical components.

Of the mathematical analog computers, the electronic analog computer is the one that we are now interested in. This latter computer employs amplifiers whose feedback and input impedances are selected so as to enable the amplifier to operate on a function in a prescribed manner—hence the name operational amplifier.

The Society of Woman Engineers is having a tea on Thursday, March 22 at 12:15 p.m. in room 438 Finley. Guest speaker will be Mrs. Alva Matthew Solomon speaking on Interdisciplinary Study.

HKN...

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gaged in are as follows: presentation of an award to the outstanding member of the E.E. Sophomore Class; tutoring of marginal students; cooperating with the student branch of the I.R.E.-A.I.E.E. in planning programs and activities; sponsoring, with Tau Beta Pi and Pi Tau Sigma, a seminar concerned with engineering management.

Eta Kappa Nu, not content to merely award a badge of distinction, aims to assist its members to become better men in their profession and also better citizens. For Electrical Engineering students approaching your junior and senior year, Eta Kappa Nu will be waiting, lofty but attainable. Will you qualify?

Hillel will present its annual Purim Arts Festival on Saturday night, March 24, at 8:00 p.m. in the Grand Ballroom of Finley Center. Featured in the program will be square dancing to the music of a live Blue Grass Band with Tex Jones calling. During the intermission, the Abirim, a professional Israeli Dance Group will perform. Tickets will be sold in advance at Hillel, 475 W. 140 St., or at the door. Admission: \$1.25 for members; \$1.75 for non-members. All net proceeds go to the United Jewish Welfare Fund.

HPA presents a chat with Prof. Lustig of the Physics Dept. on March 21 from 2-4 p.m. in room 326 Finley. Coffee and cake will be served.

Salute...

(Continued from Page 4)

other valuable quality—resilience.)

Bob is now diligently training bike races this spring. He is also to keep his national title in the "training" for graduation in June with plenty of homework. And in the near future looms the nebulous, embryonic form of his desires and exacting preparations, the 1964 Olympic team.

Well, to an energetic and resourceful student—personality, good luck.

—Ronald Antonino

Changes...

(Continued from Page 1)

would rather see Drafting 108 continued and Drafting 8 dropped. Drafting 8 was an abstract course of little practical value whereas Drafting 108 was very informative and helped introduce me to one of the many languages of my profession. Stressing theory has merit up to a point, but I think Drafting 8 was a waste of time and effort on my part."

The Finley Board of Managers is interested in arranging a Folk music hour each week to be held in the Finley Student Center. If you can play a guitar or if you like Folk music and songs please leave your name and telephone number in the Finley Board of Managers' mailbox in room 152 Finley.

Editorial...

Vote Yes On Fees

In a past editorial, we mentioned the proposed Fee increase. The modest request of a \$1 increase (a single lunch nowadays runs \$1) would allow Student Organizations to enhance their programs and activities on campus. SG President Fred Bren has revealed that over \$26,500 was requested in fee subsidies. Slightly in excess of \$17,000 was available for distribution to organizations thus necessitating large cut-backs. We urge you to support this fee increase. We remind you that the above proposal will be placed in referendum on March 27-28 and hope that you will be sufficiently interested in maintaining extra-curricula activities to "get-out" and vote.

Managers To Show Films

The Board of Student Managers will present the following features as part of its regular films program. Admission is free.

The Big Parade. Directed by King Vidor, starring John Gilbert and Renee Adoree.

Vidor's classic piece of Americana set in The Great War. It has been hailed as the best war film ever made. Complete with the original music score by William Axt.

Showings: March 21 — 303 Cohen Library — 3-5 P.M.; 217 Finley Student Center — 8:30 P.M. March 22 — 301 Cohen Library — 3-5 P.M.; 217 Finley Student Center — 8 P.M.

The Birth of a Nation. Personally directed by David Wark Griffith with a cast of thousands.

Griffith's epic of the Civil War and of the Reconstruction Era. Undeniably the most important film ever made and one of the greatest. "It is like writing history with lightning, and my one regret is that it is all so terribly true." — Woodrow Wilson.

Complete 3 hour version with full music score.

Showings: March 28 — 303 Cohen Library — 3-5 P.M.; 440 Finley Student Center — 8-10 P.M. March 29 — 301 Cohen Library — 3-5 P.M.; 217 Finley Student Center — 8-10 P.M.

Programs are subject to change without notice. Program notes will be distributed at each showing. Enquiries: Board of Student Managers, Room 151 Finley.

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Chevrolet Want to pull out all stops—except price? The Jet-smooth Chevrolet serves up spacious, gracious interiors, Body by Fisher craftsmanship, Jet-smooth ride, new V8 vinegar or 6 savings—and more. On the ferry: an Impala Sport Sedan.

Chevy II Hungering for a car that's lovely, lively, easy to park and pay for? Chevy II is all that, all right—and also winner of *Car Life* magazine's award for Engineering Excellence! Parallel to the shore: a Nova 400 4-Door Station Wagon.

Corvaire If you spark to sporty things this one ought to fire you up but good. With the engine weight astern, the steering's as responsive as a bicycle's and the traction's ferocious. As for the scat—wow! At the ramp: the Monza Club Coupe.



See the new Chevrolet, new Chevy II and new Corvaire at your local authorized Chevrolet dealer's

Slants on Sports

by Marv Chasen

ATHLETES WANTED

Although City College is primarily an academic institution, it still has a widespread athletic system geared for the willing student. The basic problem seems to lie in attracting enough people who are interested in participating in intercollegiate sports without interfering with their studies. This article will try to present what the various sport have to offer you and what you can do in return for them.

Most of the students that attend the college commute by subway, attend their classes, and then either return home or have some sort of after school job. There are, however, a vast number of students that remain in school to participate in many of the extra curricular activities that the school has to offer in the way of clubs and societies and the likes of such. These various activities usually meet on Thursday or some other day of the week. Even the numerous fraternities of the college save the majority if not all their activities for the weekends, so on the whole it appears that most students have certain "extra-curricular activity days" as I choose to call them. There are of course those people who spread themselves out to encompass a number of activities but these are only a few. It appears to me, that of all the activities a person can participate in, it is intercollegiate athletics that seems to fit the bill, when it comes to every day participation.

The college has approximately ten teams that compete with other colleges, they are:

- a) Basketball (Freshman and Varsity) — (Men and Women)
- b) Baseball (Freshman and Varsity)
- c) Fencing (Freshman and Varsity)
- d) Lacrosse (Freshman and Varsity)
- e) Rifle (Freshman and Varsity)
- f) Soccer (Freshman and Varsity)
- g) Swimming (Freshman and Varsity)
- h) Tennis (Freshman and Varsity)
- i) Track (Freshman and Varsity) — (Indoor-Outdoor and Cross Country)
- j) Wrestling (Freshman and Varsity)

In addition, most of the teams have a J.V. team for those athletes that are not on the starting varsity.

As far as the coaching is concerned, I can assure you that it is of the finest quality there is. These men really know their stuff and you would be amazed as to how easily they can share it with you. After a while you will find that you have become an integral part of something wonderful you can't quite explain. The men around you have the same interests and goals. You begin to realize that your team is more than just a team; it is a type of union, in which the men around you are probably the best friends you have made in a long time.

You're considering joining a team and you don't know the first thing about the sport, so you abandon the idea. Don't! You're too heavy, too thin, not strong enough, too slow, you smoke, and you have a lot of homework. What can I get out of it? Is there early registration, athletic privileges or the likes of such? These are some of the questions and excuses that lead to your abandoning the whole idea, and I repeat — don't.

Coach Lucia of the fencing team has an excellent method of building up his boys by having them lift weights and run track. Coach Sapora of the wrestling team can turn the heavy man into a formidable heavy-weight and just as easily the light man could succeed in the lower weight classes. Coach Castro, who also covers the field events of the track team would only be too willing to show the heavier man the advantages he possesses for throwing the shot-put or the hammer. Coach Rider of the swimming team can take you in hand and make a good swimmer of you and will probably cure your smoking habit to a good degree. I could go on and on and show you that if you look around and aren't afraid to try, then you can do it if you wish.

It is a known fact that athletes at the college receive no special privileges in the way of early registration or the likes of such, but there are a few things he can enjoy. Obtaining a varsity letter can give you a great feeling of achievement and entitles you to join the Varsity Club, a society made up of the varsity athletes of the school of which John Orlando of the Lacrosse team is this year's president. You make a lot of friends and meet a lot of other athletes from other schools you've competed with. You can do a little traveling on away meets and attend the annual parties given by your own team as well as some of the other teams.

In conclusion I'd like to say that participating in a sport for a number of days a week will not hinder your academic standing but can offer an outlet for the everyday routine of just going home, and that the time spent with the sport can be made up by using some of he time everyone tends to waste anyway with all sorts of odds and ends myself being no exception.

HONOR SOCIETY MEETING NOTICE

At a unique and jointly-sponsored open meeting of the engineering honor societies, Mr. Larry Dwon, Manager of Engineering Manpower at the American Electric Power Service Corporation, will speak on "How Some Engineers Can Become Good Managers." Following this address, scheduled for 5:15 p.m., Wednesday, March 21, in 438

Finley, Mr. Dwon anticipates conducting a "lively discussion" and meeting with all interested students.

Mr. Dwon taught at Pratt Institute of Technology and Brooklyn Polytechnical Institute. He holds an Electrical Engineering degree from Cornell University and a Masters degree in Business Administration from New York University.

Salute To A C.C.N.Y. Athlete — Bob Fisher

After missing a berth on the 1960 Winter Olympic Team as a speed-skater by six seconds, Robert Fischer is undaunted and determined to get on the '64 Olympic squad.

Bob who is a 21 year old senior and will graduate this June with a degree in Civil Engineering, has been skating in competition for six years. He lists among his laurels a first place in the Silver Skates Senior Men (1958), and first place in the 2-Mile Metropolitan Championships (1959).

The Concord Hotel is lucky to have Bob as a Member; he is earnest in concern of his sport and a hard worker. It was a lack of opportunity to train more intensively to which Bob attributes his failure to get on the 1960 team. He did most of his training indoors, while the trials took place — as the races in the Olympics do — on an outdoor track. And, as Bob explains it, there is a world of difference be-

tween the racing styles on the two different tracks. For example, the outdoor race is about three times more distant; it has a longer straightaway and less turns to contend with; the skater races individually against the clock, and must crouch lower in order to cut down increased wind resistance. He feels that since the indoor race matches skaters against one another in a group, the style involves more of strategy, and, if the skater is willy enough, doesn't require as much training.

On comparing these two types of skating, Bob holds that while the indoor race might be more exciting for the spectator, the outdoor race — the "Olympic style" — is a truer test of the skaters' ability. It takes stamina and speed, and racing against that most formidable competitor, time. Bob is just itching to prove his ability in world-wide competition.

In the way of general training,

he does cross-country running to strengthen his lungs, and bicycle riding to build up his legs. But his bike riding is another story, for, you see, Bob is also the National Intercollegiate Bicycle Road-Race champion.

About five years ago, Bob bought himself a bike to help him keep in shape for skating. Not being one to sit still and let the rest of the pack whizz by, he immediately began to race competitively for the Century Road Club Association. His labors came to fruition in 1960 when he won the National Intercollegiate Bicycle Track championships in the five-and ten-mile events. Last year, he reaped the fore-mentioned Road Race title. This earned him recognition in the May 29, 1961, issue of *Sports Illustrated*, which noted that he recovered from a fall to outdistance 37 other cyclists in the demanding 50-mile road test. (It appears as if he possesses an-

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