THE CITY COLLEGE OF NEW YORK

TECH NEWS

SCHOOL OF TECHNOLOGY

VOL. IV NO. 1 THURSDAY, FEBRUARY 16, 1956 BY STUDENT FEES

NEGRO ENGINEER OPTIMISTIC

This being Negro History Week prompts one to wonder about the status of a large group of Americans with respect to opportunities in engineering. At last semester's Tau Beta Pi convention in Michigan, the then Features Editor of *Tech News* discussed the position of the Negro in the field of engineering with Dean L. K. Downing of Howard University. This, the most famous of all Negro universities in the United States, graduates about forty engineers each semester. Of them, the majority go into industry, the Civil Service and teaching, while a few go abroad to Africa and the Caribbean. Those headed for industry join the larger companies and generally earn salaries comparable to other engineers.

Howard University has students from 32 states and 14 foreign countries; the school is not restricted solely to Negro students. Dean Downing pointed out that the staff at Howard, and the other six or seven predominantly Negro colleges, were observing the process of integration with great hope in the South. He felt that the reason for the still small engineering enrollment throughout the nation was due to the traditional notion that there are no opportunities for the Negro in industry. However, since World War II the intensified need for engineers had progressively opened up the field, and now Howard University actually has more companies coming down to interview their students than there are graduates.

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TECHMEN MORE ACTIVE

RESEARCH PROJECTS ATTRACT STUDENT ATTENTION

JERRY COOK, M.E.'56, WINS A.S.M.E. CONTEST

by Irwin Krittman, E.E.'57

Activity at the Tech School will reach a new all-time high this term. Research projects are attracting students and instructors alike; several instructors are in the process of writing books. Engineers' Day promises to be the successful event it was last year – with techmen again opening the doors of the Tech School to parents, friends and industry.

Jerry Cook, M.E.'56, won first prize of $50 in the ASME-SAE Student Paper Contest held on January 13th. In his paper on "The Results of Silicon Purification", Cook discussed the importance of silicon for semi-conductors and methods of silicon purification. Mark Hartzman was second, while Marc Shindelman and Steve Cherry tied for third place honors.

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SARNOFF CITES RESERVE NEEDS

by Howard Blatt EE'57

In an effort to relieve the shortage of teachers in mathematics and the physical sciences, David Sarnoff, chairman of the board of the Radio Corporation of America has proposed the creation of a National Educational Reserve of teachers drawn from industry to train scientists and engineers.

Mr. Sarnoff gave his views in an address to the annual banquet of the National Security Industrial Association, an organization whose purpose is to foster closer cooperation between industry and government in regard to national security.

Mr. Sarnoff declared that Soviet Russia is presently graduating twice as many engineers a year as the United States and unless the lack of qualified teachers for subjects like physics, chemistry and mathematics is met quickly there would be a shortage of trained personnel even more critical than now.

To meet it he proposed that qualified teachers be drawn from the technological ranks of industry, officially released with pay where necessary.

Mr. Sarnoff said that this Reserve would be "strictly an interim one, lets say for five years, to help meet an immediate situation in terms of our economy and national security".

Cont. on Page 3

COLE LEADS TIIC

Next term, as in the past, TIIC will continue to be a driving force behind the tech school. The success of TIIC will of course depend on the success of its component organizations and the cooperation of the organizations with the council. TIIC is essentially a coordinating body and therefore proper coordination can only be effected through proper cooperation.

Much has been said in previous semesters about the matter of integration of Tech activities

Cont. on Page 3

TECH NEWS

BRAINS BEFORE BRICKS

Authorities are beginning to realize that it is the intellectual, not material, problem of education that is confronting a wealthy and advanced nation such as the United States. Professor H. S. Commager of Columbia University recently pointed out that the number of college students will double in the next ten years. That they will be accepted is part of a living Democracy, but where the teachers of calibre are to be found, especially in face of competition from other attractions, poses a grave problem. Professor Commager feels that in order to meet the threat to higher education the tradition of the lecture should be seriously re-evaluated, the individual university made less "universal" with regard to attempting to cover all conceivable knowledge, and the non-academic paraphernalia drastically reduced.

In essence, the student must play a larger role in his own education. Of course, ideally this requires an intimate community about which we at City College can only dream; it requires a library ten times the size of our present one and an attitude and atmosphere in which it may be used; it requires a respect for sincere scholarship – and the scholar – and an interest in the subject-matter of engineering for its *own* sake.

Happily, the standards at City College are amongst the highest in the nation; the proposed new electrical engineering curriculum, for example, promises a sound emphasis on basic principles; and certainly we drain no energies on non-academic extravaganzas. It is to be hoped, then, that we will also be monopolized less and less by students' incessant harping on just quizzes and grades and their parasitic attitude toward lectures.

Wisps of the new spirit may be perceived in increasing student research activity, in continued interest in paper contests and in the initiative shown by certain student organizations in sponsoring ambitious events. It is precisely this spirit of doing things on ones own, for its own sake – however modest its beginning – that should keynote the 1956 and subsequent semesters.

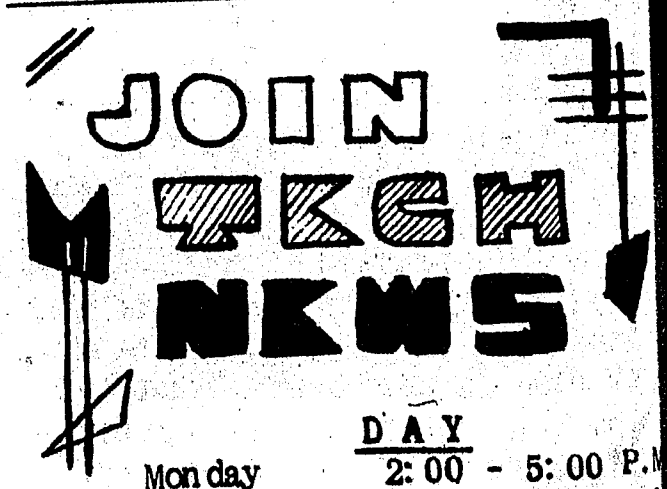
TECHNOLOGY AND SECURITY

The recent national publicity dealing with shortages of engineers, science teachers, and potential tech students, fantastic company recruiting campaigns and our diminishing technological superiority over Russia points up the importance of self-awareness in our future profession. Reports cite with alarm that Russia is graduating twice as many "engineers" as those in the United States. It is to be hoped that we will not be stampeded into confusing the mass-production of automobiles with the graduation of feeling, understanding engineering students. Although it may be ventured that American industry's problem is poor (to put it kindly) utilization of college graduates the cardinal point is that America's strength lies in human beings not robots -- the latter are not required to defend Democracy.

EVENING SESSION ARISE

At the end of last term several Evening Session Engineering Students got together and decided that they too would have a society similar to the Day Session societies. From this meeting came the idea for the Engineering Society-Evening Session. Realizing that the Electrical, Mechanical, Civil or any other specialized group of engineering students *alone* couldn't organize a group large enough to sponsor activities similar to those held in Day Session, all branches of engineering combined and formed one organization. The purpose of this organization is to enable Evening Session Students to familiarize themselves with the doings in their own as well as in other fields, to schedule lectures about engineering and related subjects, and to further the social and cultural views of its members. The hope was voiced at the organizational meeting that the individual Evening Session Tech Student would recognize the importance of such a society.

To join the society all that need be done is to leave your name and address at the office of TECH NEWS or at the department of student life.



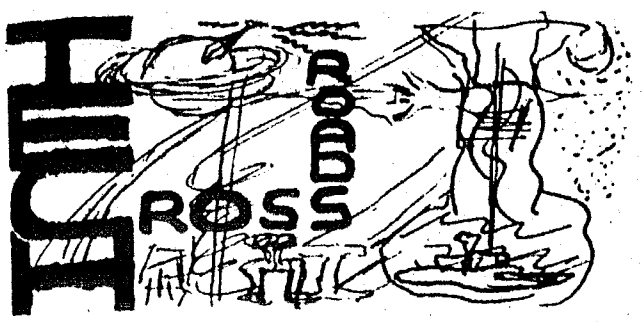
DAY

Monday	2:00 - 5:00 P.M.
Tuesday	2:00 - 5:00 P.M.
Friday	2:00 - 5:00 P.M.

EVENING

Monday	9:00 - 11:00 P.M.
Tuesday	6:00 - 11:00 P.M.

F 335



Tom Weiss, EE' 56, Chairman, has voiced his hopes of an April 17 affair. Answering his call for departmental chiefs so far are Michael Rubertone, ME' 56, Carl Costantino, CE' 56, and Joseph Diamond, EE' 56. Contact these men now for your participation!

Supply ammunition for TN' s new gossip column. Steady, engaged, married, or divorced..? heard or seen anything good in the classroom or lab...? Slip it to anybody of Tech News.

Prepare your easels now! Tau Beta Pi will sponsor its usual E-Day Art Exhibition for Techmen. Would you like to be hung at the X-Roads?

E.S. **students are eligible for** Honor Societies, but must *apply*.

ASTE **Educational Scholarship** ($700) deadline is *today*. Write to ASTE International Educational Committee, 10700 Puritain Avenue, Detroit, Michigan.

Techmen **in sweep of college-wide** honors last semester include:

S. G. *MAJOR AWARDS*- D. Pfeffer, ChE' 56; Anne Rutka, EE' 56; J. Goldberg, EE' 56; L. Katz, EE' 56; K. Loughman, ME' 56.

TECHMEN ON STUDENT GOV'T.- B. Lukaschewsky '57, M. Rizzi '57, J. Resnick '57, A. Deutschman '58, J. Sobel '59, H. Simon '59, G. Schwartz '59, A. Sarnofsky '58.

LOCK & KEY- F. Manasse, EE' 56; E. Randall, ChE' 56; J. McCloskey, ME' 56; E. Trunk, ME' 56, J. Engel, EE' 57; L. Katz, EE' 56; J. Cole, ME' 56; K. Loughman, ME' 56.

PICK & SHOVEL- K. Loughman, ME' 56; F Manasse, EE' 56; L. Katz, EE' 56; W. Hayes, ChE' 56; E. Randall, ChE' 56.

National Engineering Week is to be celebrated Feb. 19 - 25.

VECTOR IS OUT TODAY !

COLE & TIIC

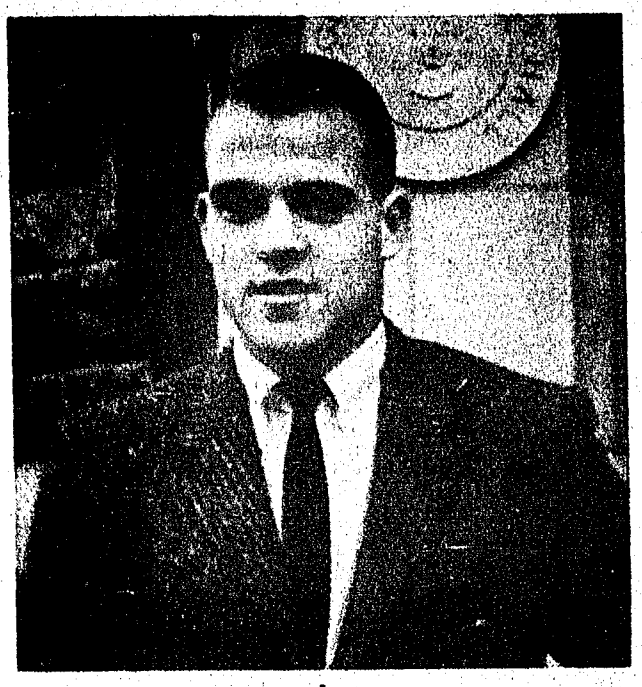
Cont. from Page 1

with those of the Liberal Arts school. TIIC has in the past recognized that CCNY is one school with one student body and has always tried to correlate its activities with that of the other schools. It will continue to do so in the future.

Major projects this term will consist mainly in the sponsoring of E-day, and the continuance of the Leadership Development program – probably open to all.

To operate successfully TIIC will of course require the continued cooperation of the students and faculty of the technology school.

JACK COLE, ME 56



SARNOFF & N.E.R.

Cont. from Page 1

The present concern over superiority of military weapons, for our immediate security, has perhaps overshadowed an area of competition which each month is growing more important. The Soviet Union is engaging the United States in an economic battle in an effort to win over the uncommitted millions living in underdeveloped areas. While at the present time the Soviet contributions to these areas are mostly "promises" the threat is still there and to meet it the United States must be prepared to send engineers and technicans to these areas. This would require a large supply of technical manpower. Mr. Sarnoff's plan if put into effect would also help in meeting this demand.

INITIATE PROJECT

by Herbert Baskin EE' 56

A glance into the EE Communications Lab some Tuesday morning will find four students developing a transistorized voltmeter, which has approximately the same characteristics as a vacuum tube voltmeter. The students - Alan McElroy, Ira Kohlberg, Donald Wortzman and Herbert Baskin (all EE' 56) - are using G.E. transistors donated to their advisor Professor Wolf(EE) by the General Electric Company. Two of these students are receiving credit under the newly instituted course EE 288.

EE 288 may be taken by any qualified EE student and is worth 1 credit toward his degree in electrical engineering. A student desiring to take this course may select his own topic, according to his interests and preparation, and must obtain departmental approval. The student will be expected to complete the course by his own initiative.

Although the TVM provides savings in power supply and size of chassis, and can be portable due to battery supplies being practical, the requirement of a high input impedance and the inherent limitation of transistors must be solved.

The group had already devised a high impedance measuring circuit by means of a "d.c. transformer" while the frequency response problem had been solved by the use of d.c. amplifiers and a rectifier probe.

Although the project is still in its infancy and many problems remain to be overcome, the student group looks forward to an intellectually profitable experience. They feel that from this project will be derived the experience of working in a group with a mutual goal; that they will be working with personal initiative as their driving force rather than just trying to get a high grade.

INTER SESSION - LIVELY EVENTS

The staff of Texaco's Beacon Laboratories served as host to thirty-five visiting SAE members on December 27th.

The SAE members were impressed by the seventy-eight engine test stands ranging from railroad diesels to overgrown model plane engines, on which new fuels and lubricants were tested.

On December 27th, AIEE-IRE visited the Philadelphia plant of Remington Rand.

Sixty students came by bus, car and train to see UNIVAC- the largest electronic digital computor in the world.

Another awe-inspiring exhibit was a high speed printer, which amazingly printed 600 lines per minute of 130 characters each.

The climax of the tour was a first class turkey dinner.

Sigma Chi Epsilon, the Chemical Engineering social fraternity, held its first induction dinner on January 6th, at the Hotel Shelbourn.

The dinner was attended by the entire membership and the nine inductees. The evening was highlighted by an elaborate five-course steak dinner and a liberal helping of fraternity humor.

On January 23rd, AIEE-IRE held its most memorable Semi-Annual Graduates' Farewell.

The evening started with a warm mingling of students and faculty-aided by beer, soda, cookies and pretzels. Later Professor Froehlich asked the graduates to take a bow and asked them not to forget their Alma Mater. A gift was presented to Miss Sadie Silverstein, Secretary of the EE Department, by Anne Rutka and Tom Weiss for her unselfish aid to the students and the organization during the past term. Victor Auerbach, President of HKN, presented the Outstanding EE Sophomore Award to Herbert Schorr.

The lighter side of the evening featured entertainment by Charles Miller, Irwin Krittman, Dr. Stein, Dr. Shulman, and Messrs. Schillinger, Brown and Eitzer.

BONFIRES BY BONFORTE AND BRENNER

RAGAZZINI TO SPEAK - ASMEN SPONSOR LECTURE - MET COUNCIL TO STAR

The hectic lecture season for techmen will reach an early climax with the successive appearance of such notables as Mr. John Bonforte, Prof. Egon Brenner, and Prof. John R. Ragazzini.

Mr. Bonforte (the College's Placement Director) will address a joint meeting of all TIIC member groups on "Job Opportunities" today at 12:30 P.M. in Shepard 306 (Main) Mr. Bonforte will illustrate and correct errors commonly made by students being interviewed and review starting salaries.

On Thursday, Feb. 23, at 12:30 P.M. in Rm. S306, AIEE-IRE will anticipate a capacity crowd to hear Prof. Brenner speak on 'Non-Linear Systems". In his usual provocative style Prof. Brenner will define such systems and describe how they differ from linear ones. Examples and methods of solution will be presented in a clear and lucid manner.

On the same day ASME will feature an interesting lecture on "Management and the Engineer" in Rm. H017 at 12:15 P.M. The talk will cover all phases of management in both large and small industrial firms. Emphasis will be placed on the self-preparation of the student engineer.

Details of the forthcoming lecture by Professor Ragazzini, Chairman of the EE Department at Columbia University and an alumnus of City College, will appear in the next issue.

The most important cultural event in the city for engineering students will take place on March 9th, at an AIEE-IRE Met. Council demonstration.

ATTENTION ALL SOCIETY PRESIDENTS! PLEASE FORWARD COMPLETE AND DETAILED ADVANCE PUBLICITY OF EVENTS TWO WEEKS BEFORE DATE OF PUBLICATION.

TECHMEN MORE ACTIVE

Cont. from Page 1

Professor Abraham Abramowitz of the E.E. Department is still devoting much of his time to the measurements of Gamma for electronic gas tubes....

A glance into the E.E. Communications Lab some Tuesday morning will find four students - Alan McElroy, Ira Kohlberg, Donald Wortzman and Herbert Baskin, all E.E.'56 - developing a transistorized voltmeter.

Mr. Harvey List, a member of the ChE Department, is currently engaged in a study of heat transfer to fluidized solids; the study is for his doctorate.

This term students in M.E. 247 - a required course for M.E.s in original research projects - will be devoting their time to designing a drill-press dynamometer and investigating drilling methods, corrosion of materials, and stresses in crankshafts and connecting rods.

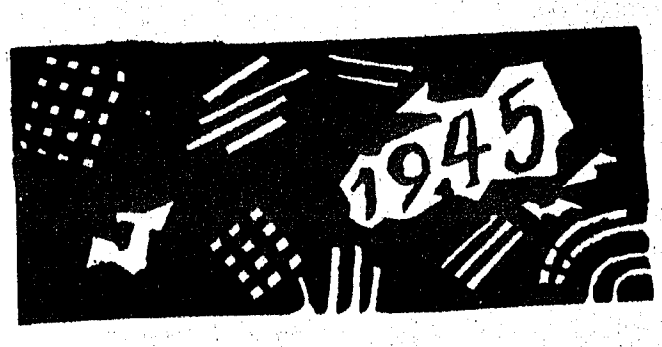
Students will also be busy at research in E.E. 288 - a new elective laboratory course installed by the E.E. Department this term.

Fred Stern, M.E.'56, reports that he is currently working on the design of a cake-forming machine. He hopes to eventually patent his invention.

It should be noted that Tech News will report on the progress of these and other activities throughout the term. Students and instructors are urged to submit information on any projects they may be participating in during the term.

GERMAN ENGINEERING EDUCATION

The following report is based upon interviews given last summer to the Tech News Feature editor at the Technische Hochschulen Berlin-Charlottenburg and Muenchen, the two largest engineering colleges in Germany, (about 4000 students each), as well as discussions held with European alumni.



No longer do German tech students leisurely drink their way through the first four semesters. The post-war situation presents students, mostly impoverished, coping with vastly overcrowded conditions, depleted lab. facilities, campuses in transition from gutted ruins to modern buildings, and finally insufficient jobs. With the large number of graduates even the old prestige of the Diplom-Ingenieur is waning. In West Berlin, heroic isle amidst Soviet serfdom, the refugees from the East receive 60% of their relief from the Western authorities. In Munich, where the bombed-out campus has been almost replaced, students still take their labs in local industries. Practically each student pays fees (about 300 DM/semester or 1 month's earnings of a workingman) so they seek odd jobs during the summer, try to become instructors' assistants, hope to eventually win a scholarship or are aided by student organizations ASTA and TUSMA.

The German student has four years Basic School, eight years "high school" (Gymnasium) and, if he makes it, five years of University. In order to enter the engineering college he is required to have passed his Abitur at the end of high school, when he is usually 18. There is absolutely no admission with "conditions", but then the preparation in Gymnasium is sound and about equivalent to our pre-engineering work.

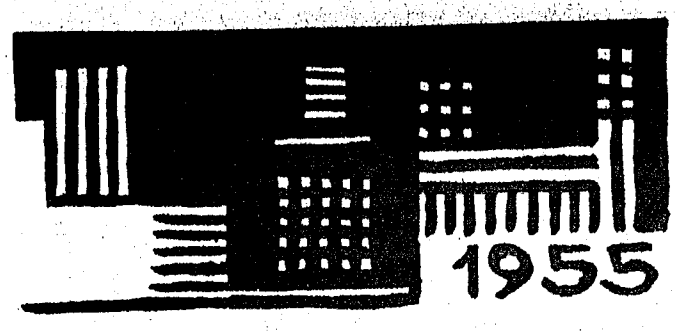
The plan of study is nominally for five years: a two year general program covering ME, CE, ChE, EE courses; a 2 year program in ones major field; 1 year of final preparation for the Diploma.

Each semester's work includes up to some 10 courses (according to department) amounting to about 30 school hours per week. The system of presenting course material is to divide the time of each into a mass lecture(Vorlesungen) and a discussion and problems period (Uebungen); lab courses are usually 4 hours in duration. The Vorlesungen are generally given by authorities in each field, (one sort of sits at the feet of great men), while the Uebungen are administered by assistants who answer all the questions and distribute and grade assignments. Thus, in Germany, the professor presents a topic to a remote, respectful audience while in the United States our system is one of learning, the teacher is close, a *helper*. All courses are offered in a set sequence, there being electives only in the 3rd and 4th year. The first four years may consist of the following proportions:

Required courses	190 hours
Electives	10 hours
Cultural courses	8 hours
total	208 hours

(30 hours from the 190 hours are devoted to laboratory periods). The fifth year is devoted to preparing for the major final under the wing of an advisor and any other work left outstanding.

An investigation, for example, of the EE curriculum shows that *each* of the first four semesters carries a course in Higher Mathematics up to American graduate work, while other equivalent courses offered in the first two years include: EE 115 (2 semesters), EE 282, generalized introductions to power and communications respectively, and lecture courses in EE L122 & EE L123 resp; Phys 7,8,111,112, (2 semesters), and a lab; CE 110, CE 120; Draf. 108; ME 128, 220, 221; introduction to ChE. The third and fourth year are taken either in power, communications-microwaves, or an approved freely selected plan (half required, half electives). In power, for example, each of the four semesters prescribes a design course while a communication major still has prescribed courses in electronics, power systems and machinery.



Needless to say, the German engineering student becomes pretty much of a recluse and devoted to his studies. A clue to the nature of his education may be obtained from the view that engineering schools are institutions set up for the production of trained men according to the particular needs and form of the industrial situation. Since German industry can only afford relatively few engineers per company, then it requires men of great flexibility and individual ability, trained in broad mathematical fundamentals and independent, theoretical problem-solving.

Leo Katz '56

SOCIETY LEADERS PRESENT PROGRAMS

MARTIN RUSH - IRE
MICHAEL KAYE - AIEE

Martin Rush, IRE, and Michael Kaye, AIEE, have conferred on their program for next term. The variety and scope of the program predicts a very interesting term. There will be lectures by representatives from industry and our own faculty; and the usual Smoker.

SYDNEY HARRIS - ASCE

Sydney Harris has pledged himself to the continuous support of all activities sponsored by the other engineering societies. The ultimate goal of the Chapter shall be to create a professional attitude among the future Civil Engineers. Dynamic speakers will lecture on subjects requested by the members.

VITO CORSO - AIChE

In addition to featured speakers and films the highlight of this semester's program will be the **AIChE** Metropolitan Conference, for which the CCNY chapter will be the host, and which will take place April 29th.

JAMES E. TEAHAN -- ASME

In addition to a dinner, plant trip, and regular meetings, the CCNY branch (largest ever) is sponsoring the ASME Metropolitan Section Conference on April 19. At the Conference, prize-winning student-papers of the Metropolitan ASME branches will be read.

SANFORD FRIEDFELD - SAE

This term speakers will talk on "Safety Devices for Cars" and "Commercial Aviation". A plant trip will be held on March 29, with two other short trips scheduled. A contest on airplane design is also scheduled, with awards to be given at a dinner.

SHELDON CHESIS - ASTE

Besides the lectures and activities on campus, ASTE members are welcome at all meetings of Chapter 34. Efforts will be made to work for closer coordination with the Greater New York Chapter 34.

FEBRUARY IS DEADLINE MONTH FOR MOST FELLOWSHIPS

THE TENDER TRAP

BY DANIEL ROSNER '55

Perhaps graduate schools are overlooked in all the hustle and bustle at the Employment Office. Perhaps not enough students are properly informed of the opportunities for full and part-time graduate study. It may even be that many students feel they have learned "all they need to know"...whatever the reason is, in my opinion it is unfortunate that the number of college graduates pursuing advanced degrees is so small at the present time...particularly on a full-time basis.

No doubt it is a question of economics and foresight. Thirty or more companies visit the College dangling money, "training programs" and technicolor brochures as bait. Their catch, each term, is remarkable. The result is that many seniors find themselves on a shelf in "industry" doing more-or-less routine work. Many soon realize that the work they would *like* to do is somehow "out of their reach" and that most of the creative and analytical work in the company is done by a core of men who have done post graduate work of some kind. These men made a long-term investment...and an investment which I feel is a wise one. They are wrestling with some of the most interesting engineering problems...problems which aren't found in outdated textbooks or handbooks...and their reward is far greater than their larger pay checks.

I don't wish to imply that formal graduate work is the *only* road to understanding and challenging work. Some companies have fine educational programs which have helped produce many valuable men.

One can, of course, go about educating one's self in an infinite number of ways...the point is that the *necessity* of this advanced education must become apparent at an early stage. If you are content finding all of the centros of the grasshopper mechanism, or solving ten reservoir problems a day with the use of nomographs...stop now. You need go no further. If you think, on the other hand, that there is more to engineering than this, then you must do something about it as an undergraduate...and I am not referring to homework! Once you appreciate the importance of your education, take it more seriously...become inquisitive, use your mind and imagination. When you realize your background in mathematics is meagre, either learn mathematics yourself or register for an additional course in the math department. Don't wait until your department decides to include advanced calculus in the curriculum...this may never come about!

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SANFORD FRIEDFELD (SAE), SHELDON CHESIS (ASTE), JIM TEAHAN, (ASME), VITO CORSO (AICHE), MICHAEL KAYE (AIEE), SIDNEY HARRIS (ASCE)

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JOB LISTINGS - JUNE AND AUGUST 1956 GRADS

It is earnestly desired that all graduates seeking employment file a graduate job application with the Placement Office F 119 *as soon as possible*. This should be done before you sign up for the job interview.

The list below of industrial companies and government agencies are scheduled to visit the campus to interview graduates.

INTERVIEW INSTRUCTIONS

1. All interviews are by appointment only.
2. To keep yourself informed, watch the bulletin boards at the Placement Office and 106 T.H.
3. Interview appointments will be scheduled about two weeks prior to the date the company will visit City College.
4. Try to keep all appointments. If you must cancel one, notify the placement office before appointment time.
5. Prepare resumes obtainable at the Placement Office and bring a copy to *all* job interviews.
6. Draft status, Grades and Class standing will not normally affect eligibility for interviews.
7. Copies of "Sample Resumes", "Selective Service Explanation Sheet", and "Interview Question, Interview Rejection" can be obtained at the Placement Office.
8. Any questions? Come to the Placement Office: 119 Finley.

NOTE: LOCATION IS BY STATE

DATE:	COMPANY	LOCATION	DEGREE
March 2	N.Y.C. Civil Service Comp.	N.Y.C.,N.Y.	C.E.
March 2	Crosley Div. Avco. Co.	Ohio	EE, ME
March 2	U.S.Naval Air Div.& Mat.Center	Pa.	All
March 2	Control Instrument Co.	N.Y.	EE,ME,M,P
March 2	Detroit Civil Service Commission	Mich.	CE,EE,ME,C
March 2	Grumman Aircraft Eng.	N.Y.	ME
March 5	Electronics Corp.of America	Mass.	EE,ME,C,P
March 5	Raytheon Mfg. Co.	Mass.	EE,ME,P
March 5 & 6	McDonnell Aircraft Corp.	Mo.	CE,EE,ME,M,P
March 5 & 6	Allis Chalmers Mfg. Co.	Wisconsin	CE,EE,ME,ChE
March 6	MIT Instrumentation Lab.	Mass.	(Top 1/3) EE,ME
March 6	Corps of Engineers	NY & out	CE,EE,ME
March 7	Curtiss-Wright Aeronautical	N.J.	CE,EE,ME,ChE
March 7	Rome Air Development Center	NY	CE,EE,ME,M,P
March 7	David Taylor Model Basin	Wash.,D.C.	All Eng.& Eco.BBA
March 7	Pub. Service Comm.	NY	CE,EE,ME,ChE
March 9	Shawinigan Resins Corp.	Mass.	ChE, C
March 9	Blonder Tongue Lab. Inc.	N.J.	EE
March 9	Foster Wheeler Corp.	N.Y.	CE,EE,ME,ChE
March 9	Stromberg Carlson Co.	N.Y.	EE,ME,P
March 9	Soil Conserv. Service	N.J.	CE
March 12 & 13	Boeing Aircraft	Wash.& Kans.	CE,EE,ME,M,P
March 12	Phila. Naval Ship Yard	Penna.	CE,ME,EE,ChE,P
March 12	Wright Air Div. Ctr.	Ohio	CE,EE,ME,M,P
March 12	Kearfott	N.J.	EE,ME
March 12	Pratt Whitney Aircraft	Conn.	C,M,P,Eco,BBA
March 13	Port Authority of N.Y.	N.Y.	CE,EE,ME
March 13 & 14	Bendix Radio	Maryland	EE,ME,P
March 13	Willow Run Research Cntr. (Assoc. with U. of Mich.)	Mich.	EE,M,P,(top 1/3)
March 13 & 14	Bethlehem Steel Co.	Pa.	CE,EE,ME,ChE
March 14	General Foods	N.J.	ChE,C (top 1/3)
March 14	U.S. Steel Corp.	Pa.	CE,EE,ME,ChE
March 14	Otis Elevator Co.	N.Y.	EE, ME
March 14	Mergenthaler Linotype Co.	N.Y.	EE,ME,P
March 16	Bloomingdales	N.Y.	All
March 16	Pittsburgh Tube Co.	Pa.	EE, ME
March 16	Columbia Gas System Sve.Corp.	N.Y.	CE,EE,ME,ChE,M
March 16	Rural Electrification Admin.	Wash.,D.C.	EE
March 16	MIT Dynamic Anal.& Control Lab.	Mass	EE,ME,M(top 1/3)
March 16	Air Products Inc.	Penn.	ChE
March 19	IBM	N.Y.	EE,ME,M
March 19	United Aircraft	Conn.	CE,EE,ME
March 19 & 20	American Cyanamid Co.	N.Y.	ChE,C (top ½)
March 20	R C A Lab. Princeton	N.J.	EE,ME,M,P
March 20	R C A Camden	N.J.	EE, ME, P
March 20 & 21	N A C A	Va.	CE,ME,EE,M,P
March 21	Naval Gun Factory	Wash.,D.C.	CE,EE,ME,ChE,P
March 21	United Aircraft Corp.	Conn.	EE,ME,ChE
March 21	North American Aviation	Cal.& Ohio	CE,EE,ME,ChE,M,P
April 6	Electronics Research Lab (Columbia U.)	N.Y.	EE (top ½)
April 11	Battelle Memorial Inst.	Ohio	EE,ME,ChE,C,P

THE TENDER TRAP

Cont. *from Page 6*

When your colleagues are busy taking interviews and reading company brochures, give serious thought to the many outstanding graduate schools in the United States. Every single one of them *needs* teaching and research assistants and every one of them offers attractive fellowships and scholarships...so money need not be a serious problem. Also bear in mind the fact that the most opportune time to do graduating work is immediately upon graduation. Most graduates who delay furthering their formal education find domestic problems interfere with their development sonner or later.

Graduate schools provide an invaluable opportunity to advanced work in fields of your interest under the guidance of some of the world's engineering leaders. I seriously doubt if anyone has ever regretted such an investment. The product of a good advanced educational program is in greater demand now than ever before, for the presence or absence of *this* man determines the success or failure of any industrial establishment.

TECH SPORTS

ASCE AND ASME TIIC LEAGUES' CHAMPS

by Stan Fafinsky CE' 57

Each semester TIIC sponsors a varied sports program. Very shortly this semester's program will get underway. It seems appropriate at this time to review last semester's results.

In Basketball, ASCE, the perennial powerhouse, romped to the championship. Sparked by the rebounding of Earl & Stan Schwartz, the scoring punch of Dick Schwartz, the drive of Norm Miller & Harvey Rothenberg and the all around fine play of Al Rosman & Al Wolfman, ASCE jumped off to a fine start by winning its first game easily. Did this easy victory go to the heads of the ASCE hoopsters? It certainly did. So pleased were they by this taste of victory, that they didn't lose a single game all semester.

According to Dick Schwartz of the ASCE team, last semester's fine record can be attributed to one important factor, the ASCE team was in reality a single unit.

Four of the five starters, Rothenberg, Miller, Wolfman & Dick Schwartz, played together for two straight years. They knew each others playing habits and abilities. From this a championship team was made.

In each TIIC sponsored tournament there seems to be one team which is always strong. In basketball it is ASCE, in bowling it is ASME.

For the second straight semester ASME has been crowned TIIC Bowling Champions. Completely rebuilt from the previous semester, the ASME team last semester proved too steady to be uncrowned. ASCE, a hot and cold team, put on a strong finish, but the early season lead piled up by ASME proved insurmountable.

The individual seasonal averages of the ASME Keglers were:

Vince Antonetti	150
Bob Hevner	137
Marty Novack	155
Arnie Reines	139
Marty Lerner	165

A casual perusal of the averages indicates the reasons for ASME first place finish.

This term's program, as usual, includes a Basketball and a Bowling tournament. Graduation has depleted the ranks of both championship teams. They, along with the rest of the organizations, need and want new players. Anyone interested in Basketball should get in touch with his major society. Those interested in Bowling may form a team to represent any of the TIIC member organizations.

Take advantage of these tournaments. They offer the opportunity for a student to meet people who he ordinarily would not come into contact with. Besides, it's a lot of fun.

NEGRO ENGINEER

Cont. from Page 1

The program at Howard still includes no "cultural" courses, thus -- apart from pressure by the ECPD (accrediting agency) -- a curriculum change is contemplated.

It is noteworthy that "the Negro technman identifies himself entirely with America and has little desire to work, in Africa -- as compared with the somewhat more numerous Jewish students who go to Israel to help out an emerging land". Also, the higher earnings of a Stateside job was pointed out. However, the University keeps in contact with Liberia, Ethiopia, etc. and tries to fulfill their demands for engineers and teachers although it still has the problem of building up its own staff. For such reasons, Howard is extremely concerned in obtaining the whereabouts of all Negro technmen with good scholarship and engineers already in the field.

While there were Negroes in engineering as far back as 1900, they were outstanding but few in number. Today, Dean Downing declared, the Negro must be informed that many opportunities exist for him.

L. K.