

Georgia School of Technology

Atlanta, Ga.

September 18, 1934.

Mr. C. R. Hixon,
Alabama Polytechnic Institute,
Auburn, Ala.

Dear Sir:

At the meeting of the Southeastern Delegates during the annual S. P. E. E. meeting at Ithaca, June 1934, it was voted unanimously to have a meeting called for this Fall at Georgia Tech for the purpose of discussing some of the problems which are vital to Engineering Education in the Southeast.

I am now announcing the date of this meeting as November 9th and 10th to be held at Georgia Tech in Atlanta, Georgia.

In order that we may be prepared for the proper discussion of these problems, I am asking you to suggest one or two topics which, in your opinion, should be discussed at this time. These topics should be very broad, general principles which are applicable in particular to the Southeast.

The following have already been suggested:

- 1- Is it advisable to organize a section of S. P. E. E. for the Southeast?
- 2- With the present status of Public School education in the Southeast, can we require the same standards of our Engineering students as the schools of the North?
- 3- If the committees of the S. P. E. E. are setting standards of Engineering Education, should we have a voice therein?

As soon as I have received your reply, I will publish and forward to you a compilation of the questions suggested, together with a tentative outline for the program of the Tech meeting.

The National Meeting of S. P. E. E. for 1935 will meet in Atlanta, and we of the Southeast should be prepared to take advantage of this great opportunity both to secure information as to the activities of the organization as well as to let our voices be heard in problems of interest to us.

Very truly yours,

Floyd Field

CHAIRMAN OF SOUTHEAST FOR S. P. E. E.

ENGINEERING COLLEGES OF THE SOUTHEAST

Dean Floyd Field appointed by Dr. C. G. Thatcher in the Fall of 1932 as Chairman of Sections and Branches for the National S. P. E. E.

Representatives of the Engineering Colleges of the Southeast called to meet at a luncheon in Ithaca, New York June 20, 1934 in connection with the National Meeting of S. P. E. E.

At this luncheon Dean Brigman presided with thirty-five present representing thirteen Engineering Schools from ten of the twelve states in the Southeastern group. After general discussion of the conditions in the Southeast, Professor Kbaugh, Chairman of the Tech Branch of S. P. E. E., invited the representatives to meet with Georgia Tech in the Fall of 1934 and the men present pledged to attend such a meeting.

STATES AND COLLEGES IN SECTION

Alabama -

Alabama Polytechnic Institute, Auburn, Ala. ✓

University of Alabama, University, Ala.

North Carolina -

Duke University, Durham, N. C.

University of North Carolina, Chapel Hill, N. C.

N. C. State College, Raleigh, N. C. ✓

South Carolina -

Clemson College, Clemson College, S. C.

The Citadel, Charleston, S. C.

University of South Carolina, Columbia, S. C. ✓

Florida -

University of Florida, Gainesville, Fla.

Kentucky -

University of Kentucky, Lexington, Ky.

University of Louisville, Louisville, Ky.

Louisiana -

Louisiana Institute, Lafayette, La.

Louisiana State University, Baton Rouge, La.

Tulane University of Louisiana, New Orleans, La.

Maryland -

*Johns Hopkins Univ. Baltimore, Md.
U.S. Naval Academy, Annapolis, Md.*

Mississippi -

University of Mississippi, University, Miss. ✓

Mississippi State College, State College, Miss. ✓

Tennessee -

University of Tennessee, Knoxville, Tenn. ✓

Virginia -

University of Virginia, University, Va.

Virginia Polytechnic Institute, Blacksburg, Va. ✓

Georgia -

Georgia School of Technology.

~~West Virginia -~~

The meeting at Georgia Tech was called for November 9th and 10th, 1934, and the following program was arranged after receiving topics suggested by various interested Deans.

November 9th - Friday

3 P M

Welcome by Dean E. P. Savant, Georgia Tech.

"Engineering Schools of the South, Past and Present, "
Dean Douglas Anderson, Tulane.

"Should the Engineering Course be Four or Five Years?"
Dean B. R. Van Leer, Florida.

"Entrance Requirements for Engineering,"
Act. Dean C. R. Hixon, Auburn.

5:30 P M - Adjourn

November 10th - Saturday

9 A M

Sections and Branches of S. P. E. E.

"Shall we have one or many for the Southeast?"

Dean W. C. Riddick, N. C. State College.

"What should the Southeast do to have a voice in methods and standards set by the National S. P. E. E.?"

Prof. R. S. King, Georgia Tech.

"Engineering Degrees - Why, When, Where?"

Dean W. S. Rodman, University of Virginia.

12 Noon - Adjourn.

2 P M - Football - Auburn and Georgia Tech.

MEETING OF DEANS AND REPRESENTATIVES OF THE ENGINEERING COLLEGES OF
THE SOUTHEAST.

Those present were as follows:

University of Alabama -

Geo. J. Davis, Jr., Dean, College of Eng.

J. R. Cudworth, Director, School of Mines.

University of Virginia -

W. S. Rodman, Dean of Engineering.

Louisiana State University and A. & M. College -

E. J. Lasalle, Dean, College of Engineering

Alabama Polytechnic Institute -

Chas. R. Hixon, Asst. Dean and Professor

Tulane University -

Douglas Anderson, Dean

James M. Robert, Prof. Mech. Eng.

University of Florida -

Blake R. Van Leer, Dean, College of Engineering.

Clemson College -

J. B. Earle, Dean of Engineering

D. H. Shenk, Assoc. Prof. of Mech. Eng.

B. Fernow

Sam R. Rhodes

University of North Carolina -

Wm. J. Miller, Acting Dean of Engineering.

A. McLaren White

E. W. Winkler

E. G. Hoefer

University of Kentucky -

W. E. Freeman, Acting Dean of Engineering

Georgia Tech -

Dean Savant

Dean W. Vernon Skiles

T. W. Fitzgerald

R. S. King

J. E. McDaniel

R. L. Sweigert

R. S. Howell

H. W. Mason

W. V. Dunkin

Those states not represented were West Virginia, Maryland, and Tennessee, and Mississippi.

The meeting was called to order by Dean Floyd Field of Georgia Tech. Dean Savant of Georgia Tech gave the welcoming address. The first speaker on the program was Dean Anderson of Tulane. The subject of his talk was "Engineering Schools of the South, Past and Present." He gave a very interesting talk on the development of engineering education in the South.

He stated that in as much as there are so many engineering schools in each state, particularly in the South, would it not be better to have a fewer number of schools resulting in a greater effectiveness of service. Also he asks the question should our engineering schools be planned for two or more years of preparatory collegiate training? Should our entrance requirements be raised to a higher level? Are we exacting sufficiently high standards of performance from our students, or are we turning too many prospective young engineers with mediocre preparation for the battle of life? Are we spending too large a proportion of our financial resources on showy buildings and equipment, and not enough for securing the very highest grade of men who are to guide and teach these prospective engineers? Are we making an earnest effort to develop and promote the spirit of scientific and engineering research among our students?

He further states that better work must come through co-operative and co-ordinated effort, avoiding false rivalries, setting up and enforcing uniform and high standards for entrance, eliminating promptly but fairly poor and mediocre material, and emphasizing constantly for those retained, the necessity of high standards of achievement and the cultivation of high ideals to fit them to take their proper places in a profession which is destined to play one of the most important parts in the development of our modern civilization.

The next speaker on the program was Dean Van Leer of the University of Florida. His topic was "Should the Engineering Course be

Four or Five Years?" He stated that four years is not enough time in which to cover even modestly the basic fundamentals which an engineering student should understand when he enters his chosen profession. In fact, no reputable engineering school now claims that its product is finished upon graduation from a four year course. There is not sufficient time to treat in any but the most superficial way a great many essentials which an engineer should have. It is highly probable that there would be a gain in educational efficiency of 50% if the time was extended another year. He suggested the following procedure:

Maintain the present entrance requirements for Freshmen which are graduation from an approved or accredited high school with 16 units of high school work, at least four units of which are mathematics including $\frac{1}{2}$ unit of solid geometry and $\frac{1}{2}$ unit of trigonometry.

Require all Freshmen in engineering to complete two years of lower division work composed approximately as follows:

| | |
|--|-------------|
| Science (Physics & Chemistry) | 20 Cr.Hrs. |
| English (Rhetoric & Composition) | 6 Cr.Hrs. |
| Mathematics - Analysis, Diff. & In.Ca. | 16 Cr.Hrs. |
| Physical Ed. & Military | 10 Cr.Hrs. |
| Engineering Orientation Sub-professional courses, shops, drawing, survey, etc. | 8 Cr.Hrs. |
| General Courses, His., Psy. etc. | 12 Cr. Hrs. |

Require a comprehensive examination for entrance into the upper division which would be strictly speaking the professional college of engineering.

Permit graduation in four years by exceptional students, but provide a path so that the normal student will take three additional years after completion of the lower division.

This would afford easy and logical stages at which students could terminate their college work without discredit to themselves irrespective of what the causes might be for this termination.

For Example -

Completion of first two years work - The award of a Junior Certificate.

Completion of four years work - The Award of the B. S. in Engineering.

Completion of Fifth year of work - The award of Bachelor of Civil Engineering, etc.

Completion of sixth year of work - and a thesis - Master of _____ Engineering.

Dean Hixon stated that he thought that if we have a five year course instead of a four year course that it would be impossible for those boys who have to work their way through school to finish five years as it is a struggle for them to finish in four years. He further stated that the summer schools have done a lot to help the boys out and to make it possible for them to graduate in four years.

Dean Miller of North Carolina said that most of the students are taking five years to finish engineering school and that a good many of the parents expressedly requested a five year program.

It was thought that it would be better to instruct these boys in rural districts as to what the engineering course consists of before they start in school, as they take this course without any idea of what it is and consequently don't finish. Also it would not be wise to put some of the college subjects in high schools, as some of the instructors are not prepared to teach these subjects properly.

Dean Earle stated that it would be all right to have a five year course, but the course should not include much more engineering than it does now. Add other subjects to make a broader course.

The next speaker on the program was Dean Hixon of Auburn. His subject was, "Entrance requirements for Engineering."

He stated that what we should do to improve upon the entrance requirements for engineering is to raise the requirements in mathematics. There should be very little variation in entrance requirements as so many of the boys are somewhat immature and their minds are not fully made up as to what course suits them best.

Our hope is that the standards of the high schools will become more nearly uniform.

It would be better to select students entering engineering schools, but state colleges that are supported by the tax payers should not turn down a boy who has the necessary 15 units to enter.

Dean Van Leer drew a diagram to illustrate his idea of the five year plan. In conclusion he stated that if we are to have a five year course, all schools must agree even to the smallest detail. The five year plan will cost more for the student, but it will be worth it. We cannot afford to hold back on account of those who are poor and cannot afford this. Smart boys can always get money to get through, but it is mediocre boys who cannot find money to finish.

We will have to show the state we are putting out a better product before we can justify ourselves in getting more money.

The meeting was adjourned at 5:30 P M.

Dr. Brittain invited the Deans to be his guest at a dinner given in their honor at the dining hall.

SECOND SESSION

At 9 o'clock on Saturday morning the conference met again in the M. E. Building at Georgia Tech. The meeting was opened by Dean Field.

The first speaker on the program was Professor King of Georgia Tech. His subject was "What should the Southeast do to have a voice

in methods and standards set by the National S. P. E. E.?"

He divided this question into three divisions: first, politics; second, interest; and third, increasing the number of members in the S. P. E. E.

Under the second division he stated that our lack of voice in the methods and standards of the S. P. E. E. from the Southeast is due largely to the fact that we are too prone to consider the North as being the only section able to make changes in its curriculum, and we let them do it.

To gain a greater voice in the methods and standards set up by the S. P. E. E. more interest in the organization must be shown by the engineering teachers in the Southeast. Without attendance we cannot hope for appointments on committees or otherwise.

We must look to the future and interest our young teachers, as they are always on the lookout for promotion and advancement. He can be shown that his affiliation with the S. P. E. E. means a way of obtaining knowledge of up-to-date curricular activities of teaching methods and some information on administrative policies, and if he has this information in hand he will be prepared when "opportunity knocks at the door" to secure advancement. Naturally his interest in the organization will grow and his place on committees and elsewhere will be assured. Hence a greater voice in the affairs of the Society.

We must convince the Society that the South is not as hot as they think and that it is a very desirable meeting place.

The next topic for discussion was "Sections and Branches of the S. P. E. E."

Sections now in existence:

Kentucky Section

Georgia Tech Section

N. C. State Section

Formation of Southeast section not encouraged, as there are so many other societies to which instructors belong and have to pay dues that they feel that they do not have the money or the time for another.

Organization of a Southeastern section would be more advantageous than state sections and branches. One of its most valuable features is the informal contact at the meetings. When the National S. P. E. E. meetings are so far away, we cannot send more than one man, so it would be advantageous to have a Southeastern section to meet when we cannot attend National S. P. E. E.

The motion was made that we organize a Southeastern section of the S. P. E. E. The motion was seconded and carried by a unanimous vote.

After much discussion it was decided to have a meeting of the Southeastern section of the S. P. E. E. on the afternoon before the

National S. P. E. E. convenes in Atlanta June 1935. It was suggested that we hold the Southeastern section of the S. P. E. E. meetings in a central point of the Southeast.

Motion was made and seconded and carried unanimously to make Dean Field Chairman of the Southeastern section of the S. P. E. E.

Motion was made and seconded and carried unanimously for Chairman to appoint committee to administer questionnaires and instruct that committee to report back here in June. The members of the committee are Dean Van Leer, Chairman, Dean Rodman and Dean Anderson.

The last topic for discussion was given by Dean Rodman of the University of Virginia. The subject of his talk was "Engineering Degrees - Why, When, Where?" He stated that there are so many kinds of engineering degrees that the public does not understand what it is all about.

He suggested that the B. S. tag be dropped and that one be adopted that should mean something to the man. The degree should be either the Bachelor of Engineering or the Bachelor of Engineering in this, that or the other major subject of pretty nearly a uniform course. For the first degree the Bachelor of Engineering would be all right if we should give that degree for what are the major courses in that organization.

The second degree would be what is called the Masters Degree in a special subject. Whether that Masters Degree should follow at the end of one or two years would depend upon the course of instruction.

For those few who might go on the appropriate degree would be the Doctor's degree.

It was suggested that the Doctor's Degree should follow after a man has proven himself in Engineering out in the field.

It was suggested that there would be no more engineering work in the five year engineering course than there is in the present four year course.

The suggestion that we have a committee to investigate and consider these degrees and present a report at the meeting here in June was referred to the same committee as above.

A motion was made and carried unanimously that a rising vote of thanks be given for the President and Faculty of Georgia Tech for their hospitality, etc.

The meeting was adjourned at 11:30 A. M.

All of the visiting delegates were invited to sit in Dr. Brittain's Box at the Tech-Auburn Football Game at 2 P. M.

ENGINEERING COLLEGES AND UNIVERSITIES

Group Meeting for the Southeast

Georgia Tech, Atlanta, Ga.

This meeting is called on the recommendation of the representatives of the Engineering Colleges of the Southeast at a meeting held in connection with the National S. P. E. E. meeting at Ithaca, New York, June 1934.

Dean Floyd Field, Chairman.

PROGRAM

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3 P M

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Dean Douglas Anderson, Tulane.

"Should the Engineering Course be Four or Five Years?"
Dean B. R. Van Leer, Florida.

"Entrance Requirements for Engineering,"
Dean C. R. Hixon, Auburn.

5:30 P M - Adjourn

8 P M - Concert by Lawrence Tibbet for those who
wish. Tickets \$1.00 to \$2.50-Atlanta Auditorium.

November 10th - Saturday

9 A M

Sections and Branches of S. P. E. E.

"Shall we have one or many for the Southeast?"
Dean W. C. Riddick, N. C. State College.

"What should the Southeast do to have a voice in methods
and standards set by the National S. P. E. E.?"
Prof. R. S. King, Georgia Tech.

"Engineering Degrees - Why, When, Where?"
Dean W. S. Rodman, Univ. of Virginia.

12 Noon - Adjourn

2 P M - Football - Auburn and Georgia Tech.

ALL SESSIONS OF MEETING WILL BE IN MECHANICS BUILDING 2ND
FLOOR.