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Government of Madras.

EDUCATIONAL DEPARTMENT.

Recd.

Regd

} 1912.

Enclosures

Spare copies

G.O. No. 858, 5th December 1911.

College of Engineering.

Submitting to the Government of India the remarks of this Government in connection with the suggestion of the Educational Conference at Allahabad that higher electrical engineering should be developed at the —, Madras.

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OOTY RECORD.

GOVERNMENT OF MADRAS.
EDUCATIONAL DEPARTMENT.

READ—the following papers :—

I

Letter—from the Hon'ble Mr. H. SHARP, Joint Secretary to the Government of India, Department of Education (Education).

To—the Secretary to the Government of Madras, Educational Department.

Dated—Simla, the 7th July 1911.

No.—977.

I am directed to invite the attention of the Government of Madras to the suggestion of the Educational Conference at Allahabad that higher electrical engineering should be developed in the Engineering College at Madras (paragraph 32 of the proceedings). The Government of India would be glad to know, in connection with a scheme for the advancement of technical instruction in India, whether the suggestion of the conference commends itself to the Governor in Council and, if so, what would be the cost of giving effect to it and what share of the cost the Madras Government would be able to provide.

2. At the same time, as regards the subject of electrical engineering, I am to invite attention to the remark made by Dr. Travers in the concluding sub-paragraph of paragraph 29 of the proceedings.

II

Official Memorandum No. 1684-1, Educational, dated 25th July 1911.

The Government of India invite attention to the suggestion made in paragraph 32 of the proceedings of the Educational Conference at Allahabad that higher electrical engineering should be developed in the Engineering College at Madras and desire to know, in connection with a scheme for the advancement of technical instruction in India, whether the suggestion of the conference commends itself to the Governor in Council. The Director of Public Instruction is requested to report at an early date whether he considers that provision should be made for the teaching of higher electrical engineering in the College of Engineering and, if so, what would be the cost of providing for such instruction. The Director's attention is at the same time drawn to the remark made by Dr. Travers regarding the subject of electrical engineering in the concluding sub-paragraph of paragraph 29 of the proceedings. It will be well if before reporting Dr. Travers is consulted on the matter. It will probably be unnecessary to provide for such training as can be more suitably furnished at the Bangalore Institute.

L. DAVIDSON,
Ag. Secretary to Government.

To the Director of Public Instruction.

III

Letter—from the Hon'ble Mr. J. H. STONE, M.A., F.R.H.S., Acting Director of Public Instruction, Madras.

To—the Secretary to Government, Educational Department.

Dated—the 29th September 1911.

No.—Ref. on Cur. 5199/11.

With reference to Government Memorandum No. 1684-1, Educational, dated 25th July 1911, calling for a report as to whether higher electrical engineering should be developed in the College of Engineering, Madras, I have the honour to submit

herewith copies of letters from the Principal, College of Engineering, No. 1171-C, dated 21st August 1911, and from Dr. Travers, dated 21st September 1911, and to state that in my opinion Dr. Travers has not attached sufficient weight to Mr. James's definition of "higher electrical engineering" and that his remark about the College of Engineering entering into competition with the Indian Institute of Science is hardly justified by what Mr. James lays down as the objects he would propose to be kept in view in the electrical Engineering work in the College of Engineering. I would invite particular attention to the second paragraph of Mr. James's letter. Students who join the College of Engineering for a course ought to be sure of getting there during their course all the instruction they will need for the successful practice of their profession and ought not to be subjected to the necessity of taking another course at Bangalore. The institute might reasonably hope to attract the men who pursue the Engineering College course most successfully and carry on their training rather in the direction of research than merely fitting them for ordinary professional work.

ENCLOSURES.

(i)

Letter—from W. H. JAMES, Esq., B.S.C., Principal, College of Engineering, Madras.

To—the Director of Public Instruction, Madras.

Dated—the 21st August 1911.

No.—1171/C.

In reply to your N. Ref. on Cur. No. 5199, dated 3rd August 1911, I have the honour to report as follows :—

A great deal depends on the meaning to be attached to the term "higher electrical engineering." If it is intended to cover the training of engineers qualified to design, erect and keep in working order such plant as is usually required for commercial purposes, I have no hesitation in saying that proper and adequate provision should be made in this college for such training quite apart from what they may propose to do at Bangalore.

Further, the training of Mechanical and Electrical Engineers is becoming so interwoven that any limitation in regard to electrical engineering will very adversely affect the development of the college, and bearing in mind the very general applications of electrical science we are likely to see in the near future, I am strongly of opinion that the college should have an efficient electrical engineering side.

It was understood the function of the Indian Institute of Science was not the training of men for ordinary purposes but rather the development of technological studies in the way of research, and "higher" work of this kind could very well be left to the institute as far as the college is concerned.

2. The cost of providing instruction naturally falls under the two heads—staff and equipment. With regard to the latter the proposed expenditure in connection with electrical engineering in the scheme now before Government may be estimated at something a little short of a lakh in all. This only covers our bare requirements for starting work, but if money is available another lakh could be spent with advantage. That would be about the limit of initial outlay advisable, and comparatively small expenditure should suffice afterwards to keep the equipment up to date.

In regard to teaching staff the chief additions required will be a European Professor with good practical and laboratory experience, and at least one assistant, on pay, say, Rs. 200—400 per mensem, qualified to assist in the laboratories.

(ii)

Letter—from Dr. MORRIS W. TRAVERS, F.R.S., Director.

To—the Director of Public Instruction, Madras.

Dated—Bangalore, the 21st September 1911.

In reply to your letter No. 5199 of the 19th September 1911, I have the honour to inform you that the facilities for teaching and research in electro-technics in the Indian Institute of Science are at least equal to those available in any University institution in Great Britain. The Professor of Electro-technics, Dr. Alfred Hay, is a well-known Electrical Engineer, and the

council propose to appoint an assistant professor to serve under him in the department. It is also proposed to appoint a lecturer of applied mechanics at an early date. A sum of Rupees 2,20,000 has been expended on the building and equipment of the department and you will see by a reference to the calendar that nearly every important type of motor or generator is represented in the machine room, the machines being of special construction and of such dimensions as to enable students to gain practical experience in the management of electrical plant. Workshops are attached to the department in which experimental plant can be constructed. The library contains complete series of almost all the important engineering journals.

The Indian Institute of Science is the only institution in India in which training of this kind is provided, but as the demand for such training is not at present very great, I am of the opinion that it will be a very great mistake if another institution such as the Madras College of Engineering were to enter into competition on similar lines.

Order—No. 858, Educational, dated 5th December 1911.

The following letter will be addressed to the Government of India.

(True Extract.)

L. DAVIDSON,
Ag. Secretary to Government.

GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

No. 859.

From

THE HON'BLE MR. L. DAVIDSON, I.C.S.,

Acting Secretary to the Government of Madras,

Educational Department,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,

DEPARTMENT OF EDUCATION.

Dated Fort St. George, the 5th December 1911.

SIR,

In reply to the Hon'ble Mr. Sharp's letter No. 977, dated 7th July 1911, on the subject of providing instruction in higher electrical engineering in the College of Engineering at Madras, I am directed to state that His Excellency the Governor in Council is decidedly in favour of the suggestion of the Educational Conference at Allahabad that higher electrical engineering should be developed in the Madras College of Engineering, if by that term is intended the training of Engineers qualified to design, erect and keep in working order such plant as is usually required for commercial purposes. As a matter of fact, there is already a proposal before this Government for the provision of such instruction as stated in paragraph 3 of the Hon'ble Mr. Weir's letter No. 5438-2, Financial, dated 7th January 1909, in which intimation was given of the intention to develop the College of Engineering so as to embrace a wider range of instruction in technological subjects having their basis in mathematics and physics, such as mechanical and electrical engineering. The initial cost of providing the equipment required is estimated at about two lakhs and the staff of the college will, it is anticipated, have to be strengthened by the addition of a professor in the Indian Educational Service with good practical and laboratory experience and an assistant on a salary of about Rs. 200 to Rs. 400 *per mensem*. This additional staff as well as the maintenance of the laboratory and its establishment will involve a recurring expenditure of about Rs. 20,000 *per annum*, of which I am to state that the Government of Madras would be able to provide one-half in addition to one lakh on account of the initial outlay on equipment.

2. In regard to paragraph 2 of the letter under reply, I am to state that Mr. Travers who was consulted considers that the Institute at Bangalore which has been well provided with buildings, staff and equipment is the only institution in India which provides facilities for teaching and research in electro-technics and that,

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as the demand for such training is not at present very large, it would be a mistake for the College of Engineering to enter into competition on similar lines. His Excellency in Council is however of opinion that the remarks of Dr. Travers are hardly justified by the circumstances of the case. The Bangalore Institute is primarily intended for students who desire to carry their electrical training further than will be possible in the College at Madras, which will make no provision for research studies of a technological nature.

I have the honour to be,

Sir,

Your most obedient servant,

L. DAVIDSON,

Ag. Secretary to Government.

Go. No 858 of 5-12-11
Educational Department
The following letter will be addressed to the Govt of India.
Re 2-12-11
LETTER:- No 859 of 5-12-11
To
The Secretary to the Govt. of India,
Department of Education.
Sir,
In reply to the Hon'ble Mr. Sharp's letter No. 977, dated 7th July 1911, on the subject of providing instruction in higher electrical engineering in the College of Engineering at Madras, I am directed to state that H.E. the Governor in Council is in favour of the suggestion of the Educational Conference at Allahabad that higher electrical engineering should be developed in the Madras College of Engineering, if by that term is intended the training of Engineers qualified to design, erect and keep in working order such plant as is usually required for commercial purposes. As a matter of fact, there is already a proposal before this Government for the purpose of such instruction as in the College, and I am to invite reference in this connection to para. 3 of the Hon'ble Mr. Weir's letter No. 5438-2 Financial dated 7th January 1909 in which it was stated that this Govt. of the intention to develop the College of Engineering so as to embrace a wider range of instruction in technological subjects having their

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Page of No. 517 of 2-2-09 Z

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electrical training ^{farther} higher than will be possible in the college: ^{at Madras} the ordinary student who goes straight from the college to work must be provided with facilities for knowing so much of electricity as is necessary for the performance of his ordinary duties and of Engineering is the place where the college ~~should~~ ^{is the place where} such instruction ~~should~~ ^{is} be provided.

I have etc.

which will make no provision for research studies of a tech. - logical nature.

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No. 859

From

The Hon'ble Mr. L. Davidson, I.C.S.,
Ag. Secretary to the Government of Madras,
Educational Department,

To

The Secretary to the Government of India,
Department of Education.

Fort St. George, dated the 5th December 1911.

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2. In regard to paragraph 2 of the letter under reply, I am to state that Dr. Travers who was consulted considers that the Institute at Bangalore which has been well provided with buildings, staff and equipment is the only institution in India which provides facilities for teaching and research in Electro-technics and that, as the demand for such training is not at present very large, it would be a mistake for the College of Engineering to enter into competition on similar lines. His Excellency the Governor in Council is however of opinion that the remarks of Dr. Travers are hardly justified by the circumstances of the case. The Bangalore Institute is primarily intended for students who desire to carry their electrical training further than will be possible in the college at Madras, which will make no provision for research studies of a technological nature.

I have the honour to be,

Sir,

Your most obedient servant,

L. D. 4.12.11

Ag. Secretary to Govt.



Current No., dated 190 ..
G.O., No. *185-59*, dated *5-12-* 19*11*.

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