

Government of Madras.

EDUCATIONAL DEPARTMENT.

Recd.

Regd.

} 1911.

Enclosures

Spare copies

G.O., No. 471, 14th July 1911.

College of Engineering, Madras.

Recording report on the working of the — during 1910-11.

✓
Government of Madras.

EDUCATIONAL DEPARTMENT.

Recd.

} 1911.

Enclosures

Regd.

Spare copies

G.O., No. 471, 14th July 1911.

College of Engineering, Madras.

Recording report on the working of the — during 1910-11.

GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

READ—the following paper :—

Letter—from the Hon'ble Mr. J. H. STONE, M.A., F.R.H.S., Acting Director of Public Instruction.
To—the Secretary to Government, Educational Department.
Dated—Madras, the 14th June 1911.
No.—C. 4049.

I have the honour to submit herewith a copy of my Proceedings, Dis. No. 2960, dated 2nd June 1911, reviewing the report on the working of the College of Engineering during the year 1910-11.

ENCLOSURE.

Proceedings of the Director of Public Instruction, Dis. No. 2960, dated 2nd June 1911.

Read—the following paper :—

Letter—from W. H. JAMES, Esq., B.Sc., Principal, College of Engineering.
To—the Director of Public Instruction.
Dated—Madras, the 11th April 1911.
No.—54-C.

I have the honour to submit the administration report of the College of Engineering for the academic year 1910-11.

2. *Staff*.—I returned from furlough on the 14th March 1910, and relieved the Acting Principal Mr. F. E. Morgan, who reverted to the Public Works Department.

Mr. C. L. Cartwright, Professor of Mechanical Engineering, was granted privilege leave for one month and nine days in continuation of the Christmas holidays, and returned to duty on the forenoon of the 12th February 1910.

The two years' agreement of Mr. C. H. Lobban, temporary Professor of Civil Engineering, terminated on the 12th March 1910, but he was retained on the staff till the afternoon of April 28th in order to complete the work of the session.

Mr. C. L. T. Griffith, appointed temporarily to the Indian Educational Service, joined for duty as Professor of Civil Engineering on the afternoon of August 6th.

Mr. P. G. Williams, Sub. *pro tem*. Workshop Instructor, resigned his appointment on the 29th July 1910. The vacancy was advertised and from among the applicants Mr. H. G. Landeman, Junior Assistant Engineer, Carnatic Mills, Perambur, was selected for the appointment and he joined the College on the 1st September. The Professor of Mechanical Engineering was in charge of the Workshops during the interval.

M.R.Ry. M. Ganapati Aiyar, a first-grade overseer, who was deputed from the Public Works Department for the charge of the newly-instituted class for the Engineering training of officers of the Salt, Abkari and Revenue Department, reported himself for duty on the forenoon of the 15th July 1910. He reverted to the Public Works Department on the afternoon of 31st January 1911 on the temporary discontinuance of the class.

M.R.Ry. R. Tirumurti Rao, Sub. *pro tem*. Assistant in Vernaculars, was confirmed in his appointment with effect from 1st July 1910.

M.R.Ry. R. Venkatesa Aiyar, Second Assistant Instructor in Surveying, was granted extraordinary leave without allowances for seven months and 24 days with effect from 23rd November 1910 and M.R.Ry. S. Venkatarama Aiyar who was appointed to act for him joined on the forenoon of the same date.

M.R.Ry. V. S. Swaminatha Aiyar, one of the Upper Subordinates whose services were lent by the Public Works Department for temporary employment as Assistant Instructors in this college, was granted leave on medical certificate for three months with effect from 9th December 1910.

I regret to record the death on the 16th February 1910 of M.R.Ry. M. Raman, College Accountant, whilst on privilege leave.

M.R.Ry. N. Ramanujachari, Head Clerk of the office of the Inspector of European and Training Schools, was appointed permanent accountant of the college and reported for duty on the afternoon of the 20th April, when the several acting appointments made during M.R.Ry. Raman's absence terminated.

I. Narayanaswami Aiyar, the 1st Assistant Clerk, was granted privilege leave for one month and a half with effect from 23rd August. T. Vedantachari, the 2nd Assistant Clerk acted in his place and a substitute was temporarily employed to perform duties of the latter.

3. *Numbers*.—The numbers on the rolls at the end of the academic year were—

Class.	Practical course.	In college.			Total.
		Third year.	Second year.	First year.	
Engineer	..	24	20	23	67
Upper Subordinate	15	27	18	41	101
Lower Subordinate	..	30	33	56	119
Total ..	15	81	71	120	287

Excluding the students under practical training, the total number of students actually on the rolls of the college on the 31st March 1911 was 272.

The corresponding totals for the previous four years were—

Year.	Number.
1909	213
1908	256
1907	315
1906	292

The larger total as compared with the previous two years is due to the admission of ten casual students to the senior division of the Engineer class and the larger numbers enrolled for the first year Upper and Lower Subordinates classes.

The distribution of the students by classes of the community, districts, wealth and occupation of parents is given in appendices A, B and C.

Of the total number 79.4 per cent. were Brahmans, 8.8 per cent. Non-Brahman, Hindus, 4.3 per cent. Native Christians, 6.9 per cent. Europeans and Eurasians and 0.3 per cent. Muhammadans. The percentage of Brahmans increased slightly from the previous year—76.5 to 79.4—, whilst the figures for Europeans and Eurasians and Muhammadans dropped by 2.0 and 0.7 per cent., respectively.

As regards districts Tanjore was represented by 25.6 per cent., Trichinopoly by 6.6 per cent., Gódvári and Malabar by 5.6 per cent. each, Guntur, Madura and Mysore by 4.0 per cent. each, Vizagapatam, Madras and North Arcot by 2.0 per cent. each, Chingleput and Pudukkóttai by 0.7 per cent. each of the total number.

4. *Admission of students*.—Twenty-one qualified candidates were registered for admission to the Engineer class, and of these nineteen joined the college. One unqualified and three over-age candidates were also enrolled under the usual conditions, making a total of 23 for the class.

Only 16 qualified candidates applied for admission to the upper subordinate class and to avoid a shortage of men for the public service sanction was accorded for bringing the class up to full strength by the admittance of students who had completed the qualifying courses but had failed in the examination in a subject not regarded as of the first importance in connection with technical work.

For the lower subordinate class 58 qualified candidates were registered and 41 joined the college. As this number was also below the sanctioned limit, five over-age and ten unqualified candidates were admitted under the usual conditions.

With reference to this matter of admission of students, it is now fairly certain that under the new University Regulations we shall not obtain the students we require, and I have accordingly addressed you separately on this subject and also in regard to several other changes that experience of working under the revised college rules has shown to be desirable.

Revenue officers class.—A new departure was made during the year by the formation of a class for the training of officers of the Salt, Abkari and Revenue department. It had been the custom hitherto for these men to obtain assistance towards qualifying for the departmental test in Engineering from subordinates attached to the Public Works Department divisions in their districts, but this arrangement had never worked satisfactorily and Government last year decided they should be afforded the advantage of undergoing short periods of training in the college. The officers are accordingly being admitted in batches of fifteen for a two months' course in elementary drawing, estimating and surveying. The first joined the college on July 18th and the second and third batches on September 19th and November 20th, respectively. On the termination of the last course of training the Board of Revenue decided their officers could not be spared during the busy season, and the next batch will accordingly join at the beginning of the coming session.

5. *Examinations.*—Sessional examinations were held for all classes in the month of April 1910.

Engineer class.—Nine students constituting the civil branch and six students forming the mechanical branch of the intermediate division of this class took the examination and all passed gaining 59.2 and 59.8 per cent. of the total marks, respectively.

The junior division consisting of 21 students obtained 63.5 per cent. of the marks. One student in this class failed and left the college. Of the 20 students qualified for promotion only three elected to specialize in mechanical engineering. It was found on enquiry that although several other students had leanings in that direction, they selected civil engineering under instructions from their parents or guardians who apparently preferred the certainty of appointments under Government as Upper Subordinates in the Public Works Department to, from their point of view, the somewhat uncertain prospect of employment in the mechanical engineering line. It is of course impossible for the college to bring any direct pressure to bear in this connection as that would involve the acceptance of the responsibility of finding employment at the end of the course, and it therefore appears probable that we shall have comparatively small mechanical engineering divisions until there is a strong demand for qualified men.

Upper Subordinate class.—The senior, intermediate and junior divisions of this class consisted of 16, 27 and 19 students, respectively. All passed their respective examinations with the exception of a student in the junior division, who continues his studies in the same class for another year. One student of the senior division qualified for the diploma with honours.

The average percentages of marks gained were 60.5, 64.7 and 65.9, respectively.

Lower Subordinate class.—The senior, intermediate and junior divisions of this class were represented by 20, 30 and 39 students, respectively. All the senior and intermediate students passed the examinations, two of the final class with honours. Four students of the junior class failed to pass and severed their connection with the college.

Full particulars of the marks gained in the several branches of the examinations are given in appendix D.

6. *Honours and distinctions.*—Owing to the change in the college year there was no senior division of the Engineer class at the time of the sessional examinations, and no award was made of the college gold medal for the year under report.

The silver medal was awarded to G. G. Krishna Aiyar, the senior student of the Upper Subordinate class and the bronze medal to S. Dhairiyam Mudaliyar, the senior student of the Lower Subordinate class.

7. *University examinations.*—These examinations were held for the first time in the month of April. Seven students of the senior division of the Engineer class, six students under practical training and ten ex-students appeared for the B.E. degree examination and of these 5 passed—3 in the mechanical branch and 2 in the Civil branch.

There were 35 students for the F.E. examination of whom 9 were third year students, 14 second year students, 8 students under practical training and 4 ex-students. Nine were successful in all—2 third year students, 5 second year and 2 students under practical training.

The University "Rao Bahadur S. Subbaraya Chariar" gold medal was gained by S. Krishnaswami Aiyar and the University J.A. Jones' prize for hydraulic engineering by K. Tirumalaiswami Aiyar.

8. *Practical courses.*—Ten Engineer and 15 Upper Subordinate students started their courses of practical training in February and July 1910, respectively.

Six of the Engineer students including the senior student, desired to obtain the diploma as Mechanical Engineers and accordingly, under the old rules, joined the workshops of the Public Works Department. Two of these students took advantage of the facilities offered by the Chairman of the Harbour Trust and spent the second half of the course on the harbour works.

The 4 Engineer students, who elected to be trained as Civil Engineers were posted to Public Works Divisions.

The practical courses of two Engineer students one of the year 1907 and the other of 1908, were extended by three months for unsatisfactory progress and of another of 1908 by five days to make up for excess of leave taken during the period of training.

The practical courses of 2 Engineer Subordinate students of the previous year were extended by three months for unsatisfactory progress.

One Engineer and 5 Engineer Subordinate students of 1908 who were under practical training during 1909 attended the survey camp held in January 1910 for further instruction and practice, and their practical courses were extended to make up for this period of absence.

Four Upper and 2 Lower Subordinate students who had failed to qualify in practical surveying attended the survey camp of January 1911 and the practical courses of the former will be extended by the time they were so employed.

The Upper Subordinate students who passed last year, with the exception of one who proceeded to Europe, were attached as usual to Public Works Divisions for practical training.

All Engineer and Upper Subordinate students under practical training attended the Body Guard Riding school for instruction in riding.

9. *Military students.*—The number of military students on the rolls at the end of the academic year was—

Practical course	...	...	...	...	...	...	...	3
Upper Subordinate class.	{ senior division							4
	{ intermediate division							6
	{ junior division							3
Probationers	...	...	...	...	...	...	...	5
Total								21

During the year under report one of the Military probationers who joined in the previous year failed to qualify for retention in the college and another student in the junior division was remanded to his regiment for unsatisfactory conduct.

10. *Inspections.*—At the end of September 1910 the intermediate division of the Civil Engineer class and the senior division of the Lower Subordinate class were under the charge of the Professor of Civil Engineering and the Instructor in Civil Engineering toured over part of the Gódvári and Kistna districts and included a visit to the Divi pumping installation.

About the same time the senior and intermediate divisions of the Upper Subordinate class together with the intermediate division of the Lower Subordinate class with the Chief Instructor in Mechanical Engineering and two Assistant Instructors proceeded to Elamanur for inspection of the irrigation works in the Cauvery Delta. From the Upper Anicut the party went by way of the Grand Anicut to Nidamangalam and Coriyar Head, and afterwards a visit was made to Negapatam for the inspection of the South Indian Railway Workshops.

The Senior and Intermediate Mechanical Engineer classes accompanied by the Professor of Mechanical Engineering and an Assistant Instructor visited the Karteri power station and Cordite Factory at Wellington, and also returned by way of Negapatam.

The senior Civil Engineers and the junior division of the Engineer class under the charge of the Instructor in surveying and an Assistant Instructor made a short tour of the Pennar system from Sangam to Nellore.

Another party consisting of the junior divisions of the Upper and Lower Subordinate classes in charge of three Assistant Instructors visited the Irrigation works connected with the Palar Anicut system.

Local Engineering works were as usual inspected during the year.

The total cost of the tours in which 268 students took part was Rs. 1,356-11-0.

11. *Survey camps*.—Reference was made to the survey camp of January 1910 in the administration report of last year.

The survey camp work of this session was carried out in the country from Avadi to Poonamallee and at Pallavaram. The camp was held from January 3rd to February 1st and was attended by 256 students.

During the first ten days the work was based on the idea of running a railway line from Avadi to Poonamallee with the provision of specified station accommodation at the former place. The senior classes did the theodolite work and also to give them experience in the management of survey parties, they were as far as possible made responsible for the work done by their levelling and surveying squads.

The work undertaken at Poonamallee for the second period was a detailed survey within the cantonment boundaries. The several parties of students dealt with specified portions of the area, and the surveys were finally brought together to form complete plans of the cantonment.

At Pallavaram the senior students of the Engineer class were engaged on trigonometrical survey work, advantage being taken of known information regarding the G.T.S. stations for purposes of check. The other classes were at the same time making surveys of the town and the surrounding hills, setting out ghaut roads, railway cuttings and embankments, and ascertaining the heights of hill tops.

The camp was under the control of the Acting Professor of Civil Engineering assisted by eight other members of the staff, and the work done was on the whole quite satisfactory. The total cost was Rs. 3,295-11-6.

12. *Workshop and laboratories*.—The students of all classes devoted as usual a few hours a week to workshop practice. The Mechanical Engineer divisions of the Engineer class however, as their course implies particular qualifications in this direction, received special instruction in the shop, and full use was made of the appliances and facilities at our disposal for their experimental work, but it is impossible to deal properly with the syllabus under our present circumstances.

A considerable amount of more or less routine testing work has been done in the laboratory during the course of the year, but pressure of ordinary college duties has not allowed of the prosecution of anything much in the way of research.

The defective negative plates originally supplied for the storage battery have been replaced by new plates, and the battery is now in good working order.

In regard to new laboratory apparatus the chief item indented for during last year, and which has just been received was a motor generator set for the electrical laboratory. With this addition it will be possible next term to improve the laboratory course in Electrical Engineering, but our equipment for the purpose only goes a little way towards what it should be for a college of this type, and nothing much more can be done with the accommodation at our disposal.

13. *Library*.—The new library catalogue has been completed and is now in the press. During the year 130 new books were added to the library bringing the total up to 5,070 volumes. The numbers of books issued to students and staff from 31st December 1909 to 31st March 1911 were 1,885 and 728 respectively, while 289 references were made to books in the reference library.

14. *Athletic club*.—Mr. C. L. Cartwright, who continued as Honorary Secretary during the year, reports the club to be in a flourishing condition.

The annual sports were revived after a lapse of a few years and a very successful meeting was held.

The college withdrew early in the session 1910 from the Madras Collegiate Athletic Association and took no further part in the competitions for which they had entered. A satisfactory list of matches was arranged outside the auspices of the association.

An organised attempt is being made by means of the inter class competitions to induce as many students as possible to take part in field games. The third division of the Upper Subordinate class took the leading position in the football and the first division of the same class in the hockey competition.

The members are indebted to Mr. Cartwright, Mr. Old and M.R.Ry. S. Subrahmanya Aiyar for the interest they have taken in the affairs of the club.

15. *Attendance and conduct*.—The percentage of the attendance to numbers on the rolls of the college was 97.1. Detailed particulars for the several classes are given in Appendix E. The conduct of the students during the year was quite satisfactory.

16. *Casualties*.—I regret to have to record that one second year and two first year students of the Lower Subordinate class died during last year.

17. *Employment of passed students—Engineers*.—Of the sixteen Engineer students who completed their practical courses early in 1910, the senior V. Aiyadurai Aiyar was appointed Assistant Engineer in the Provincial Service of the Public Works Department and thirteen students secured the following appointments:—

Assistant Engineers, Local Fund Board	...	...	...	3
Temporary Upper Subordinates, Public Works Department, Madras	...	...	...	7
Supervisor, Pumping Experiments, Revenue Department	...	...	...	1
Temporary Surveyors, Cauvery Reservoir Project, Mysore	...	...	...	2

The remaining two students furnished no information.

Engineer Subordinates.—Thirty Engineer Subordinates completed their courses of training at the end of February 1910. Of these the senior N. R. Subrahmanya Aiyar was appointed a permanent upper subordinate, third grade, in the Public Works department. Twenty-three students obtained employment as under—

Overseer, Public Works Department, Madras	...	...	...	1
Surveyor, Public Works Department, Madras	...	...	...	1
Temporary Upper Subordinate	...	...	...	1
Supervisor, Municipal Water Works	...	...	...	1
Temporary Surveyor, Public Works Department, Madras	...	...	...	1
Local Fund Overseers	...	...	...	2
Overseer, Travancore Public Works Department	...	...	...	1
Temporary Surveyor and Draftsman, Cauvery Reservoir Project	...	...	...	1
Draftsman, Special Superintending Engineer's office	...	...	...	1
Temporary Draftsmen, Public Works Department, Madras	...	...	...	9
Minor Irrigation Sub-Overseer	...	...	...	1
Assistant Instructor in Surveying	...	...	...	1
Maistry, Police Recruit School works, Coimbatore	...	...	...	1
Probationary Inspector of Police	...	...	...	1

No information has been received from the remaining six students.

Lower subordinates.—The first batch of lower subordinates consisting of eighteen students completed their courses of instruction on the 30th April 1910. Thirteen reported they had obtained the following appointments:—

Draftsmen, Public Works Department, Madras	...	...	...	3
Do. Railway Company	...	...	...	1
Sub-Overseer, Public Works Department	...	...	...	1
Minor Irrigation Sub-Overseer	...	...	...	1
Temporary Municipal Overseer	...	...	...	1
Do. Surveyor	...	...	...	1
Surveyor and Draftsman, Forest Department	...	...	...	1
Overseer, Railway Company	...	...	...	1
Devasthanam Sub-Overseer, Cochin State	...	...	...	1
Local Fund Sub-Overseers	...	...	...	2

The remainder furnished no information regarding their employment.

Although as stated above several students have not returned their appointment forms, that does not necessarily imply they have not obtained employment, as there is at present considerable demand for qualified men.

Particulars of the vacancies notified during the year are given in Appendix F.

18. *Financial details.*—Information in this connection is given in Appendix G. It will be noted that the receipts from January 1910 to March 1911 inclusive amounted to Rs. 24,814-5-5, the charges to Rs. 1,47,795-5-6 resulting in a net cost to Government of Rs. 1,22,981-0-1. The average number of students on the rolls during the period was 255, so that the net cost per student for the fifteen months was Rs. 482-4-5. The figures given are subject to modification after full particulars of recent adjustments made by the Accountant-General are communicated to this office.

An abstract of receipts and charges for the last five years is given in Appendix H.

19. In conclusion I desire to acknowledge the loyal co-operation of the staff, particularly of the senior members, in carrying on the work of the college.

APPENDIX A.

Distribution of students according to classes of community on the 31st March 1911.

Classes.	Europeans and Eurasians.	Native Christians.	Muham-madans.	Hindus.			Total.
				Brahmins.	Non-Brahmins.	Pancha-mas.	
Engineer classes	1	8	..	55	3	..	67
Upper subordinate classes	18	1	..	63	4	..	86
Lower subordinate classes	..	3	1	98	17	..	119
Total ..	19	12	1	216	24	..	272

APPENDIX B.

Distribution of students by districts on the 31st March 1911.

Districts.	Engineer class.	Upper sub-ordinate class.	Lower sub-ordinate class.	Total.
Ganjám	..	1	..	1
Vizagapatam	..	2	3	5
Gódvári	4	2	9	15
Kistna	1	1	15	17
Guntúr	2	1	8	11
Bellary	..	..	..	..
Kurnool	..	..	..	..
Nellore	1	..	1	2
Madras	2	..	3	5
Chingleput	..	..	2	2
Cuddapah	..	..	1	1
North Arcot	..	3	1	4
South Arcot	1	3	2	6
Tanjore	22	22	26	70
Trichinopoly	..	8	10	18
Madura	2	5	4	11
Tinnevely	3	5	6	14
Coimbatore	2	6	9	17
Nilgiris	..	..	..	..
Salem	..	1	1	1
Malabar	4	3	8	15
South Canara	1	2	3	6
Pudukkóttai	1	1	..	2
Cochin	2	1	5	8
Travancore	6	2	2	10
Mysore	11	..	..	11
Pondicherry	..	..	..	..
Hyderabad	1	..	..	1
Military students	..	13	..	13
Military Probationers	..	5	..	5
Straits Settlements	1	..	..	1
Total ..	67	86	119	272

APPENDIX C.

Distribution of students by wealth and occupation of parents on the 31st March 1911.

Class.	Wealth.				Occupation.						
	Richer class.	Middle class.	Poorer class.	Total.	Officials.	Petty officials.	Traders.	Land-holders.	Artizans.	Mendicants.	Others.
Engineer class, third year	..	23	1	24	13	..	..	11	..	..	..
Do. second year	2	18	..	20	14	..	..	6	..	..	..
Do. first year	1	20	2	23	8	2	..	13	..	..	..
Upper subordinate class, third year	..	21	2	23	11	..	1	10	..	..	1
Do. do. Military students	..	..	..	4	..	..	..	..	..	..	..
Do. second year	..	10	2	12	4	..	..	8	..	..	..
Do. do. Military students	..	..	..	6	..	..	..	..	..	..	..
Do. first year	2	29	2	33	16	..	..	17	..	..	..
Do. do. Military students	..	..	..	3	..	..	..	..	..	..	..
Military probationers	..	..	..	5	..	..	..	..	..	..	..
Lower subordinate class, third year	..	29	1	30	13	1	1	16	..	..	..
Do. second year	1	24	8	33	15	2	1	14	..	..	..
Do. first year	1	54	1	56	15	1	3	37	..	..	..
Total ..	7	228	19	272	109	6	6	131	..	..	2

APPENDIX D.

Results of examinations of April 1910.

	PER CENT.
Engineer class, second year, Civil Branch—	
Branch I, Mathematics and Science	58.9
Do. II, Engineering	59.4
Physical Exercises	63.7
Average ..	59.2
Mechanical Branch—	
Branch I, Mathematics and Science	53.4
Do. II, Engineering	61.6
Physical Exercises	65.0
Average ..	59.8
Engineer class, first year—	
Branch I, Mathematics and Science	59.8
Do. II, Engineering	66.5
Physical Exercises	60.0
Average ..	63.5
Upper Subordinate class, third year—	
Branch I, Mathematics	56.8
Do. II, Engineering	61.0
Physical Exercises	62.2
Average ..	60.5
Upper Subordinate class, second year—	
Branch I, Mathematics	68.3
Do. II, Engineering	63.4
Physical Exercises	65.5
Average ..	64.7

APPENDIX D—cont.

Results of examinations of April 1910—cont.

										PER CENT.
Upper Subordinate class, first year—										
Branch I, Mathematics ...	...	...	...	...	...	...	...	...	...	66.3
Do. II, Engineering ...	...	...	...	...	...	...	...	...	...	65.9
Physical Exercises ...	...	...	...	...	...	...	...	...	...	62.7
Average ...										65.9
Lower Subordinate class, third year—										
Drawing ...	...	...	...	...	...	...	...	...	...	62.1
Applied mechanics ...	...	...	...	...	...	...	...	...	...	63.4
Construction ...	...	...	...	...	...	...	...	...	...	58.8
Surveying ...	...	...	...	...	...	...	...	...	...	63.6
Workshops ...	...	...	...	...	...	...	...	...	...	65.1
Physical Exercises ...	...	...	...	...	...	...	...	...	...	64.4
Average ...										61.8
Lower Subordinate class, second year—										
Drawing ...	...	...	...	...	...	...	...	...	...	67.3
Applied mechanics ...	...	...	...	...	...	...	...	...	...	48.9
Construction ...	...	...	...	...	...	...	...	...	...	57.1
Surveying ...	...	...	...	...	...	...	...	...	...	61.1
Workshops ...	...	...	...	...	...	...	...	...	...	64.1
Physical Exercises ...	...	...	...	...	...	...	...	...	...	62.8
Average ...										63.3
Lower Subordinate class, first year—										
Drawing ...	...	...	...	...	...	...	...	...	...	56.1
Surveying ...	...	...	...	...	...	...	...	...	...	64.6
Workshops ...	...	...	...	...	...	...	...	...	...	55.7
Physical Exercises ...	...	...	...	...	...	...	...	...	...	60.9
Average ...										59.1

APPENDIX E.

										Average strength.	Average daily attendance.
Engineer class, third year ...											
Do. second year ...	...	...	...	...	...	...	...	...	...	24.1	22.9
Do. first year ...	...	...	...	...	...	...	...	...	...	18.5	18.1
Upper Subordinate class, third year ...											
Do. second year ...	...	...	...	...	...	...	...	...	...	22.4	22.1
Do. first year ...	...	...	...	...	...	...	...	...	...	23.6	23.2
Military probationers ...											
Do. second year ...	...	...	...	...	...	...	...	...	...	20.8	19.9
Do. first year ...	...	...	...	...	...	...	...	...	...	30.8	30.1
Lower Subordinate class, third year ...											
Do. second year ...	...	...	...	...	...	...	...	...	...	5.0	4.9
Do. first year ...	...	...	...	...	...	...	...	...	...	26.9	26.2
Do. second year ...	...	...	...	...	...	...	...	...	...	32.4	31.1
Do. first year ...	...	...	...	...	...	...	...	...	...	50.8	49.4
Total ...										255.3	247.9

Percentage of numbers present to numbers on rolls—97.1.

APPENDIX F.

Classification of vacancies notified during 1910-11.

	Government.				Local Board and Municipality.				Railways.				Native States.				Private employers.				Total.
	Above Rs. 200.	Rs. 100 to 200.	Rs. 50 to 100.	Under Rs. 50.	Above Rs. 200.	Rs. 100 to 200.	Rs. 50 to 100.	Under Rs. 50.	Above Rs. 200.	Rs. 100 to 200.	Rs. 50 to 100.	Under Rs. 50.	Above Rs. 200.	Rs. 100 to 200.	Rs. 50 to 100.	Under Rs. 50.	Above Rs. 200.	Rs. 100 to 200.	Rs. 50 to 100.	Under Rs. 50.	
Engineer or Assistant.	1	3	..	..	1	2	..	..	..	..	..	..	2	..	..	..	..	..	..	..	9
Supervisor	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Overseer	..	..	3	..	..	..	3	..	..	..	..	..	..	..	1	3	..	..	..	..	10
Sub-Overseer.	..	..	2	54	..	..	1	..	..	..	..	..	..	..	6	..	..	..	..	..	63
Draftsman	..	..	12	85	..	..	3	..	..	..	..	..	..	..	..	8	..	..	..	..	108
Surveyor	..	..	28	13	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	43
Amicant or Conservancy Superintendent.	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
Total ..	1	3	45	156	1	3	4	4	..	..	..	..	2	..	9	11	..	..	..	..	239

APPENDIX G.

Financial details for the period January 1910 to March 1911 inclusive.

		RS.	A.	P.
Receipts—				
Tuition and registration fees	...	22,778	2	0
Miscellaneous	...	2,036	3	5
Total	...	24,814	5	5
Charges—				
Principal	...	16,117	10	6
Professors and Instructors	...	70,956	15	9
Accountant, librarian, clerks and servants	...	7,944	9	3
Library, prizes, books and medals	...	1,837	4	6
Travelling allowances of officers and establishments	...	3,896	12	2
Europe stores and laboratory charges	...	18,917	14	9
Workshop materials	...	7,720	4	2
Survey camp and inspection tour charges	...	6,972	5	7
Office contingent charges	...	5,492	8	3
Scholarships of students	...	6,569	5	7
Exchange compensation allowance	...	1,369	11	0
Total	...	1,47,795	5	6

Net cost to Government	...	Rs. 1,22,981-0-1
Average number of students on rolls	...	255
Net cost per student	...	Rs. 482-4-5
Average tuition fees paid by student per annum	...	„ 89-5-2

APPENDIX H.

Comparative financial details.

	1906.	1907.	1908.	1909.	January 1910 to March 1911 inclusive.
Receipts	Rs. 31,020	23,999	19,830	17,649	24,814
Charges	1,14,085	1,10,495	1,04,359	97,182	1,47,795
Net cost to Government	83,065	86,496	84,529	79,533	1,22,981
Average number of students on rolls	No. 295	313	253	204	255
Net cost per student	Rs. 282	276	334	390	482
					Equivalent to Rs. 385 for twelve months.


~~~~~  
 Proceedings, Dis. No. 2960 of 1911.  
 ~~~~~

Recorded.

2. There was an appreciable increase in the number on the rolls during the year, and the causes that contributed to this result are stated in paragraph 3 of the report.

3. The proposals made by the Principal regarding the rules relating to the admission of students into the several classes of the college are under the consideration of Government.

4. As observed by the Principal the formation of a class for the training of officers of the Salt, Abkari and Revenue Departments was a special feature of the year.

5. The results of the sessional examinations were very satisfactory while those of the University examinations were disappointing.

The work of the survey camps appears to have been particularly interesting and instructive.

6. The efficiency of the institution was fully maintained during the year.

J. H. STONE,
Ag. Director of Public Instruction.

To the Principal, College of Engineering, with a spare copy.
 „ Principals of other Government Colleges.
 „ Inspectors of Schools.
 „ Superintendent, School of Arts.
 Copy to the Chief Engineer, Public Works Department.
 „ Government (with C.L.).

Order—No. 471, Educational, dated 14th July 1911.

Recorded.

(True Extract.)

L. DAVIDSON,
Ag. Secretary to Government.

To the Director of Public Instruction.
 „ Public Works Department.
 Editors' Table.

OOTACAMUND.

EDUCATIONAL (1911) DEPARTMENT.

(Copy.)

LETTER to the Under Secretary of State for India,

No. 472, dated 14th July 1911.

FORWARDING copy of the report on the working of the College of Engineering,
 Madras, during the year 1910.

EDUCATIONAL DEPARTMENT.

LETTER—to

THE UNDER SECRETARY OF STATE FOR INDIA.

SIR,

With reference to the instructions conveyed in Lord Hartington's Despatch No. 9, Public Works, dated 18th May 1882, I am directed to forward a copy of the Proceedings of the Madras Government recording the report on the working of the College of Engineering, Madras, during the academic year 1910-11.

I have the honour to be,

Sir,

Your most obedient servant,

L. DAVIDSON,
Ag. Secretary to Government.

OOTACAMUND,
14th July 1911.

[E. & L.]
74
2,000-15-3-0

Report on the Working of the College of Engineering, Madras.

39

” ” ” ” ” ” 19

READ ALSO:—

C. No. 416, From the D.P.I., No. 4049, dated 14-6-1941

" ") " " , " "

19

Circled in Box-11-8-

ORDER

P. S.

No. 4/1, dated 14. 7. 1911

To be placed E.T.

Recorded

To The D.P.I.
-- P.W.D.
E.T.

Depd with
1 encl.
20/7/11

Me
27-6-11

cf. Letter No. 336 of 11-6-10 -

Letter to No 672 of 14-7-11
The Under Secy of State for India

Sü

With ref. to the instructions conveyed in Lord Hartington's Despatch no. 9, Public works, D. 18.5-1882, I am directed to forward a copy of the Pro. of the Madras Govt. recording the report on the working of the ^{academic} Coll. of Eng. Madras, during the year 1910-1911.

7.7.
25-6-1

26.6 - 1

5
2000

Current No. 1416 dated.....19

G.O., No....., dated.....19

Number of MS. pages sent { Correspondence including order or orders
(b) Notes.....

Docket: College of Eng. Madras
Recording report of the
as on the 1st of the
during 1910-11

(c) Number of copies required when struck off (not including
copies for volumes and editors' table which are retained
in the Press).

Complete
correspondence
and orders.

Notes

FOR RECORD.*
Madras Records 30
Ooty Records 3
For filing with original 1
Total 34

Letter n^o 472
FOR ISSUE.†

Signature copies.....
India Office.....
Govt. of India.....Dept.
Public Department.....
Judicial Department.....
Financial Department.....
Revenue Department.....
Public Works Department.....10
Local and Municipal Department.....
.....Dept.

Spare copies.
The Director of Public Instruction.....5
The Comr. for Govt. Examinations.....
The Superintendent, Govt. Museum.....
The Surgeon-General.....
The Accountant-General.....
The Collector of.....
The P. D. B.....
The.....
The.....
The.....
The.....
The.....
The.....
The.....
The.....
Total

INSTRUCTIONS FOR THE
SECRETARIAT.

(a) If a paper is marked to be printed urgently, the Superintendent of the section concerned should sign the Press slip. The Superintendent should exercise a careful discretion in the matter.

(b) Each letter, memorandum, or order, or set of orders, in the file of correspondence should be headed in succession with the Roman numeral I, II, III, etc., the number being written in red ink or blue chalk above the item. The particular papers to be printed in the special issue-copies should be indicated by the Roman numeral (I, II, etc.) by which that item has been headed in the correspondence file. All matter, including marginal remarks or references, to be printed should be written in ink and matter which should not be printed should be encircled. Initials and signatures that are not quite legible should be re-written distinctly.

(b¹) For rules regarding printing of notes, see the rules in G.O., No. 1220, Public, dated 30th November 1900.

(c) The number of copies and the details of distribution should be filled in by the Superintendent or Referencer concerned.

(d) In the absence of special instructions to the Press to keep matter standing for a specified period, ordinary papers of 8 pages and under will be kept standing for one week, and larger papers for two weeks only. The type of notes and of all confidential papers is distributed immediately after striking.

(e) This slip, properly and completely filled in, should accompany every paper sent to Press; it will be returned by the Press when proofs are furnished; it should be sent to the Press when a call is made for revised proofs or when a corrected proof is sent for striking. When finally returned by Press it should be filed with the original order or letter.

INSTRUCTIONS FOR THE PRESS.

(a) If, in the opinion of the Superintendent of the Press, a paper has been marked urgent unnecessarily, he should send the Press slip to the Deputy Registrar with a remark to that effect.

(b) Unless a note to the contrary is made against the matter, pencil entries should not be printed. The Superintendent of the Press may bring to the notice of the Deputy Registrar any instance of incomplete or careless editing.

(c) Signature copies of letters to the Secretary of State or to the Government of India should be printed on hand-made paper.

(d) This slip should be returned by the Press to the Secretariat when proofs are furnished; it will be sent back to the Press when proofs are returned corrected and should be finally returned to the Secretariat when struck-off copies are supplied.

(e) The names of the Secretary and Members should be printed in full when they occur on the right hand side, but only the first time when they appear on the left side, the initials alone being printed later.

* Copies distributed on.....*(Press Clerk.)

† Copies distributed on.....*(Despatcher.)

TO PRESS, MADRAS.
OOTY.

A	B	C
Please send proof in triplicate. The papers have been carefully edited.	Proof returned corrected. Please strike off and send number of copies as indicated.	As the matter is clear manuscript and has been carefully edited, (b) proof need not be sent. Please print and supply number of copies as indicated.
Type may be released after usual interval.	Type may be released after usual interval.	Type may be released after usual interval.
.....Clerk.	Clerk.	Clerk.
.....Supdt.	Supdt.	Supdt.

(b) Three copies of proof of all notes should be sent for approval, except when instructions are given to the contrary.

SPECIAL INSTRUCTIONS.

68 Please send signature copies of letter H.p. ~~Shap~~ ~~son~~ and ~~the~~

San
30-6-11

TO BE FILLED IN BY THE PRESS.

Diary.	Initials of Press official.
Received in Press on.....	30-6-11
First proof furnished on.....	4-7-11
Call for revised proof received on.....	8-7-11
Revised proof furnished on.....	21-7-11
Corrected proof received for striking on.....	21-7-11
Final copies supplied on.....	25-7-11

Account of copies.	Complete copies.	Notes.	Issue copies.
Supplied to Secretariat for Record.....	34-3		
" " " Issue.....	15		
For Volumes.....			
For E.T.....			
Total ...			