Pub

M/35

Gestt. II-27—58,004—27-10-47.

1952

E T 4 (194) Department.

MS. SERIES.

(1)

G.O. NO. 182 Edn

Dated 24/1/50

98

Govt / 14 and. notes from pp 15-16

[Despatch Abstract.]

Q S & Rules - Principals of Govt. Engg Colleges — Permitted to become members of Assen. of Principals of Technical Institutions (India).

Back Papers.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

Further Papers.

G.O.	No.	Department.	Date.	G O.	No.	Department.	Date.

Legd
5760.9.M/52
27/2/53.

ASSOCIATION OF PRINCIPALS OF TECHNICAL INSTITUTIONS (INDIA)
C/O DELHI POLYTECHNIC,
LOTHIAN ROAD, DELHI.

SECRETARY TO GOVERNMENT OF INDIA
1 AUG 1949
EDUCATION AND PUBLIC HEALTH DEPT.

To
The Secretary,
to the Government of Madras,
Department of Education,
MADRAS.

58169

No. 12374. Dated, Delhi, July 21, 1949.

Sir,

I have the honour to place the following for your kind consideration:-

The Association of Principals of Technical Institutions (India) was formed in 1941 with the objects mentioned below:-

1. To confer on all matters relating to the work now conducted and which may be conducted in Technical Institutions and to take such action with reference thereto as seems desirable.

2. To make representation to or communicate with Central, Provincial or State Governments or any other authority on any matter affecting technical education in India.

3. To communicate with institutions of foreign countries relating to Technical Education in India.

4. To elect or nominate representatives on the All-India Council for Technical Education, All-India Boards of Technical Studies and other bodies to be set up having the former objects in view.

5. To collect information relating to technical education in India.

6. To encourage an uniform standard of technical education throughout India.

7. To frame syllabus of studies for different technological subjects in various grades.

8. To assist, Central, Provincial or State Governments in matters relating to technical education.

9. To get the courses of technical studies in India known abroad.

10. To assist the Central, Provincial or State Governments and institutions for employment in technical and industrial and scientific departments.

11. To assist or co-operate with the Government in any scheme for advancement of technical education in India.

The Association has about 90 members on its rolls. The membership is limited to persons who hold the position of whole-time principal of one of the following:

(a) Technological, Commercial, or Art Institution which provide a full-time progressive course of instruction covering at least 3 years, for students over the age

Copy of letter No.2524-C1/47 dated 2nd June 1947, from the Director of Industries and Commerce, Chepauk, Madras, to the Secretary to Government, Development Department, Madras.

****

Sub:--Public Services-Sri D.P.Roy Chowdhury, Principal, School of Arts and Crafts, Madras-Permission to lecture at the - All India Principals Association Comference at Bombay - Requested.

****

The Principal, School of Arts and Crafts, Madras states that he has been requested by the Department of Education, Government of India to give a lecture on "How Artist is made" at the A ll India Principal's - Association conference to be held at Bombay on 11th June 1947 at 10 A.M. I request that Government may be pleased to permit him to attend the - conference, to deliver lecture and to draw Travelling Allowance as per rules.

I solicit early orders as the Principal wants to leave Madras on 8th June 1947. I am however permitting him to proceed to Bombay in anticipation of Government's approval.

****

Copy to the Principal, School of Arts and Crafts, for information.

Forwarded/By order

sd: D.P.Roychowdhary,
Superintendent.

(True copy).

of 16, leading to a degree, diploma or certificates, provided that the institution in question is affiliated to a University or is maintained by or receives a grant from the Central Government, the Government of a Province or of an Indian State.

(b) High School offering full-time instruction of a technological or vocational character to all students for a period of not less than 3 years.

(c) Institution imparting progressive part-time instruction in technological, art or commercial subjects, leading up to qualifications under (a) above, provided the institution has had at least 100 individual students on its rolls in each of the 3 consecutive calendar years, prior to application for membership.

There is a council to act as a governing body of the Association. The Association holds one general meeting in a year.

It is requested that you will kindly help and co-operate by allowing principals under your control to attend annual meeting of the Association and pay their T.A. thereof. The annual general meeting is usually held in January/February.

Encl. 2.

Yours faithfully,
A Dasgupta
Hony. Secretary.

DIRECTOR OF PUBLIC INSTRUCTION MADRAS 10 AUG 49

Cir. 12146/49.

Education and Public ~~Health~~ Dept. (A)

Endt. No. 5818.7-A-1, ~~dt.~~, 11-8-49.

Referred to the Director of Public Instruction for remarks.

Recd 10

9.8.49
Asst. Secy. to Govt.

P.J. 5.8.49

To the Director of Public Instruction (with two booklets to be returned with reply).

Ans.

A

(3)

OFFICE OF THE DIRECTOR OF PUBLIC INSTRUCTION, MADRAS
Rc.962-A2/49 dated 15-9-49

Sub:--Association of Principals of Technical Institutions (India)--Permission to Principals of Engineering Colleges to become members--Grant of--

Ref:--Government Endorsement No.58169-A1 Education dated 6-8-49

DIRECTOR OF PUBLIC INSTRUCTION MADRAS 26 SEP 1949

Resubmitted.

2) A copy of the remarks of the Principal, College of Engineering, Guindy is herewith submitted. I recommend that the Principals of all Government Engineering Colleges may be permitted to become members of the Association and they may be allowed to meet the membership subscription from Provincial Funds under "Books and Periodicals" of the concerned Colleges. They may also be permitted to attend meetings of the Association at their own expense. I dom not consider it necessary to meet the expenditure on T.A. etc., from Provincial Funds when they attend the annual meetings.

For Director of Public Instruction

To
The Secretary to Government,
Education and Public Health Dept.,
Madras.

Clb.20-9-49

Copy of the remarks of the Principal, College of Engineering, Guindy.

Sub:--Association of Principals of Technical Institutions (India) regarding--Remarks called for--by the Director of Public Instruction--Madras N.Rc.K2/49 dated 11-8-49

Resubmitted to the Director of Public Instruction, Madras.

2. It is requested that permission may be kindly accorded to become a member of the above association as the aims of the Association are good.

3. It is further pointed out that it is desirable for the Principals of all the Engineering Colleges of this Province to be members of the Association.

4. The subscription may be met under the head "Books and Periodicals" of this College.

For Director of Public Instructio

Clb.20-9-49

of 16 ading to a degree, diploma or certificates, provi that the institution in question is affiliated to a versity or is maintained by or receives a grant om the Central Government, the Government of a Prove or of an Indian State.

(b) High ool offering full-time instruction of a technical or vocational character to all students for a iod of not less than 3 years.

(c) Institution imparting progressive part-time instruction in tecological, art or commercial subjects, leading up to alifications under (a) above, provided the institution has had at least 100 individual students on its olls in each of the 3 consecutive calendar years, rior to application for membership.

There a council to act as a governing body of the Association. The Aociation holds one general meeting in a year.

It is uested that you will kindly help and co-operate by allowing rincipals under your control to attend annual meeting of t Association and pay their T.A. thereof. The annual general eting is usually held in January/February.

Encl. 2.

Yours faithfully,
A Dasgupta
Hony. Secretary.

DIRECTOR OF PUBLIC INSTRUCTION MADRAS 10 AUG 49 (Rc. 12462/49.)

Education and Public Health Dept. (A)
Endt. No. 58169-A1, Edn., dt. 11-8-49.

Referred to the Director of Public Instruction for remarks.

Recd
Rc 10

9.8.49
Asst. Secy. to Govt.

P.J. 5.8.49 5/8/49

To the Director of Public Instruction (with two booklets to be returned with reply).

Rmr

A (3) 3

OFFICE OF THE DIRECTOR OF PUBLIC INSTRUCTION, MADRAS
Rc.962-A2/49 dated 15-9-49

Sub:--Association of Principals of Technical Institutions (India)--Permission to Principals of Engineering Colleges to become members--Grant of--

Ref:--Government Endorsement No.58169-A1 Education dated 6-8-49

DIRECTOR OF PUBLIC INSTRUCTION MADRAS 26 SEP 1949 EDUCATION AND PUBLIC HEALTH

Resubmitted.

2) A copy of the remarks of the Principal, College of Engineering, Guindy is herewith submitted. I recommend that the Principals of all Government Engineering Colleges may be permitted to become members of the Association and they may be allowed to meet the membership subscription from Provincial Funds under "Books and Periodicals" of the concerned Colleges. They may also be permitted to attend meetings of the Association at their own expense. I dom not consider it necessary to meet the expenditure on T.A. etc., from Provincial Funds when they attend the annual meetings.

½ For Director of Public Instruction

To
The Secretary to Government,
Education and Public Health Dept.,
Madras.

Clb.20-9-49

(6) E.S.#.1

Memo. no. 58169-A-3 — Edn. dl — 15/11/49.

Membership of Assn. of Tech. Institutions (India).

Sri D.P. Roy Chowdhury is requested to state how his subscription for membership of the Assn. of Principals of Tech. Institutions (India) & the expns incurred in connection with his attendance at the meetings of the Assn., are met. He is also requested to quote the Govt. order by which he was permitted to be an ordy. member of the Assn.

25/11/49

To Sri D.P. Roy Chowdhury, Principal, Govt. School of Arts & Crafts, Madras.

14.4.49

L.Dis.No.1854/49.

School of Arts & Crafts,
Madras, Dt. 25-11-1949.

From

The Principal,
School of Arts & Crafts,
MADRAS.

To

The Secretary to Government,
Education & Public Health Department,
MADRAS.

Sir,

Ref: Government Memo No.58169-A3, Edn. d/ 15-11-1949.

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93270

I submit that I had not taken the specific sanction of the Government to be a member of the Association of the Principals of Technical Institutions(India), since it was purely a private concern and connected with cultural activities. I may however invite attention to G.O.Ms.No. 2512(Dev.) dt. 7-12-1947 (copy enclosed) by which I was permitted by His Excellency the Governor of Madras to deliver a lecture at the Association Conference held in Bombay in June 1947. A copy of the letter of the Director of Industries and Commerce No.2524.C1/47, dt. 2-6-1947 quoted in the above G.O. is also enclosed for ready reference.

2. The subscription for membership of the Association was paid by me. I had, so far, attended only one meeting of the Association, the one held in Bombay during June 1947 and referred to in the G.O. cited in para 1 above. The expenditure connected with the attendance at that meeting was met from the Provincial Funds.

PRINCIPAL.

Encl x

COPY SUBMITTED TO
The Director of Industries & Commerce,
for information with a copy of the Government Memo dt.15-11-49

Office of the Director of Industries and Commerce,
Madras, Dated 10-6-47.

Copy of G.O.Ms.No.2512., dated 7th June 1947, Development Department Government of Madras.

****

Sub:--Roy Chowdhury Sri D.P.-Principal, School of Arts and Crafts, Madras, -Permission to deliver a lecture of at the All India Principal's Association Conference at Bombay-Granted.

Ref:--From the Director of Industries and Commerce, No.2524-C1/47 dated the 2nd June 1947.

O R D E R:

His Excellency the Governor of Madras permits Sri D.P.Roy Chowdhury, Principal, School of Arts and Crafts, Madras to deliver a lecture on "How Artist is made" at the All India Principals' Association Conference to be held at Bombay on the 11th June 1947.

****

Endorsement No.2524-C1/47 dated 10-6-47.

Copy communicated to the Principal, School of Arts and Crafts Madras for information.

Copy to Stock file

S.A.MUTHURAMA AIYAR,
For Joint Director of Industries and Commerce.

Forwarded/By/Order

D.P.Sanjeeva,
Superintendent.

(True copy).

1-22-27
25-4
29-4

1
2
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25-27
39-4

GOVERNMENT OF ASSAM.

PUBLIC WORKS DEPARTMENT .. ESTABLISHMENTS BRANCH.
NO.E.30/52/49/194-201.

Shillong, the 6th January, 1950.

From

R.Chandra,Esq.,B.Sc.,C.E.(Hons.),M.I.E.(Ind.),I.S.E.,
Secretary to Government.

To

The Secretary to the Government of

(1) West Bengal.
(2) Bihar.
(3) Orissa.
(4) Bombay.
(5) Central Provinces.
(6) East Punjab.
(7) United Provinces.
(8) Madras.

in the Education Department.

Subject:- Travelling Allowance to Principals for attending the Annual General Meeting of the Association of Principals of Technical Institutions (India).

Sir,

I am directed to enclose herewith a copy of letter No.12373 dated the 21st July 1949 from the Honorary Secretary of the Association of Principals of Technical Institutions (India) and to request you to be so good as to let this Department know whether Principals under your administrative control are granted travelling allowance for attending the annual general meeting of the above named Association and, if so, the rules adopted by you on this matter may kindly be furnished.

Yours faithfully,

Enclo:- One copy of letter.

N.M.
6/1/50.

for Secretary, P.W.D., Assam.

ASSOCIATION OF PRINCIPALS OF TECHNICAL INSTITUTIONS (INDIA)
C/O DELHI POLYTECHNIC,
LOTHIAN ROAD, DELHI.

To

The Secretary,
to the Government of Assam,
Department of Education,
SHILLONG.

Same as pp. 1-2 ante

(11) (12)

No.12373. Dated Delhi, July 21, 1949.

Sir,

I have the honour to place the following for your kind consideration :-

The Association of Principals of Technical Institutions (India) was formed in 1941 with the objects mentioned below :-

1. To confer on all matters relating to the work now conducted and which may be conducted in Technical Institutions and to take such action with reference thereto as seems desirable.

2. To make representation to or communicate with Central, Provincial or State Governments or any other authority on any matter affecting technical education in India.

3. To communicate with institutions of foreign countries relating to Technical Education in India.

4. To elect or nominate representatives on the All-India Council for Technical Education, All-India Boards of Technical Studies and other bodies to be set up having the former objects in view.

5. To collect information relating to technical education in India.

6. To encourage an uniform standard of technical education throughout India.

7. To frame syllabus of studies for different technological subjects in various grades.

8. To assist, Central, Provincial or State Governments in matters relating to Technical Education.

9. To get the courses of technical studies in India known abroad.

10. To assist the Central, Provincial or State Governments and institutions for employment in technical and industrial and scientific departments.

11. To assist or co-operate with the Government in any scheme for advancement of technical education in India.

The Association has about 90 members on its rolls. The membership is limited to persons who hold the position of whole-time principal of one of the following:

(a) Technological, Commercial, or Art Institution which provide a full-time progressive course of instruction covering at least 3 years, for students over the age of 16, leading to a degree, diploma or certificates, provided that the institution in question is affiliated to a University or is maintained by or receives a grant from the Central Government, the Government of a Province or of an Indian State.

(b) High School offering full-time instruction of a technological or vocational character to all students for a period of not less than 3 years.

(c).....

-4- (12) 13

(c) Institution imparting progressive part-time instruction in technological, art or commercial subjects, leading up to qualifications under (a) above, provided the institution has least 100 individual students on its rolls in each of the 3 consecutive calendar years, prior to application for member

There is a council to act as a governing body of the Associati The Association holds one general meeting in a year.

It is requested that you will kindly help and co-operate by allowing principals under your control to attend annual meeting of the Association and pay their T.A. thereof. The annual general meeting is usually held in January/February.

Yours faithfully,

Sd/- A. Dasgupta.

Hony. Secretary.

I. (13) 14

Edn. and P.H. Dept.(A).

G.S.C.Rules - Principals of Govt.Engg.Colleges -Permitted become members of ~~the~~ Assn. of Principals of Tech.Institutions (India).

Read:- From The Hon. Secy., Assn. of Prls. of Tech.Institutions (India), d/- 21-7-49.
From the DPI, No.962-A2/49, d/- 15-9-49.

G.O.(MS.)No. 182 Edn., d/- 24-1-50

Such of the Principals of Govt. Engg. Colleges as desire to become members of the Assn. of Principals of Tech. Institutions (India), Delhi, are permitted to do so and attend the annual general meetings of the Assn. subject to the condition that neither the membership fee nor any expre. in connection with their attendance at the Assn.'s meetings is met from the ~~Provincial~~ Provl. funds and ~~that~~ the Principals concerned meets all expenses himself, ~~in connec~~ from his own pocket. The period of ~~the~~ absence of the Principals from the colleges when they attend the Assn.'s meetings will, however, be treated as duty.

To the DPI.
Copy to the Hon.Secy.
Assn of Prls. of Tech.
Institutions (India),
C/o. Delhi Polytechnic,
Lothian Rd., Delhi.
To the A.G.
Copy to Dev.

II.

Letter/Ref.No. 58169-A)-Edn., d/- 23/1/50

To

The Secy. to the Govt. of Assam,
P.W.D. - Estts.Branch,
Shillong.

Sir,

T.A. for Prls. attending Annual meetings of Assn. of Prls. of Tech. Institutions (India).
Ref:- Your letter No.E.3M/58/49/194/201, d/- 5-1-50.

I am to say that ~~Principals~~ Principals of Engg. Colleges under this Govt. are not allowed t.a. for their attendance at the annual general meetings of the Assn. of Principals of Tech.Institutions (India). A copy of this Govt.'s Proceedings in the matter, No. , Edn., d/- , is enclosed.

Yrs.ffly.,

(14) A NF 15

Edn.and P.H. Dept.(A).

From the Hony.Secy., Assen. of Principals of Tech. Institutions, New Delhi, No.12374, d/- 21-7-49.

From the D.P.I., No.962-A2/49, d/-15-9-49.

--

Assen. of Principals of Tech. Institutions - Permission for Principals of Engg. Colleges to become members.

--

It is seen from "m"/15 that Sri D.P. Roy Chowdhury, Principal, Govt. School of Arts & Crafts, is an ordy. member of the Assen. of Principals of Tech. Institutions (India). Dev. may first be requested to say how his membership fee and the expre. incurred by him in connection with his attendance at the meetings of the Assen., are met.

5.11.49 8/11/49 Dev

7/11/49 109713

Develpt Dept D.I

The notes of the E.P.H. above may be perused. E.P.H. may be requested to consult Sri Roy Chowdhury regarding 'A' above and to let this Dept see the file after his reply is received. Then the file may be returned to E.P.H.

Develpt No. 109713-D.I/49-1 11-11-49

9/11/49 11.11.49

11/11/49 E.P.H

E.P.H. (A)

A draft Memo. is subd.

15/11/49

Issued as Memo. No. 5819-A.3-Edn., dt- 15.11.49 from Sri Roy Chowdhury, L.Dis. No. 1854/49, dt- 25.11.49.

Sri Roy Chowdhury has not been specifically permitted by the Govt. to be

GOH-U 5819-A-2 8.11.49

12 NOV 1949 8838

P.T. 14.11.49 14/11/49

cf 1 cf 3 cf 8

...er of the Assn. of the Principals of Technical ...itutions (Delhi). Permission in this regard may ... given to the Principals of Govt. Engg. Colleges — as ...mmended by the D.O.I. at cf 3.

2. The subscription for membership in Sri Roy ...hury's case not by himself. On that analogy, the ...cipals of Engg. Colleges may be left to ... their membership fee from their ~~own funds~~ ...hey choose to become members of the ...sn. There is no justification to accept ... Dir.'s proposal to utilise the Govt. funds ...er "Books & Periodicals" allotted to the Engg. ...eges concerned, for the purpose.

3. The Dir.'s view that it is not ...ry to pay T.A., etc. to the Principals for ... attendance at the annual meetings of ... Assn. may be endorsed. [It is a ...tter for Dev. to consider how, when their ...der at cf 9 does not contemplate the ...rawal of T.A., etc. by Sri Roy Chowdhury, ...s expnt. in connection with the Assn.'s meeting ... June 1947, was actually met from the ...ct. funds.] The Engg. Colleges Principals may be allowed to ...nd the meetings at their own expense, ~~taking leave of absence as admissible~~

4. Dev. may see for remarks

On file.

DSH 27/12/49

Addl Secy 28/12/49

125495

Dev. 29 DEC 1949 DEVELOPMENT DEPARTMENT

28/12/49.

cf 8 pin 2

P

x cf 3

M

cf 8

N

Dev. D

This Dept previously noted on p.1 above. The further notes of the Eptl. H. on pp 1-2 above may be perused. With ref. to 'M' on p.2 ab... it is submitted that the D.I.E. in his letter a... p.1 of (W) while applying for permission fo... Sri Roy Chowdhury to attend the Conference ... Bombay and deliver lectures also requested ... specific sanction of Govt. to draw T.A. for ... him. But in G.O. Ms No/ 2512 Dev. d. 7-6-47, ~~Govt. only permitted~~ Sri Chowdhury was only permitted to deliver the lecture at Bombay and ~~did not make any~~ no mention was made about the T.A. Inasmuch as G.O. Ms No/ 2512 Dev. d. 7-6-47 was issued with ref. to the D.I.E.'s letter on p.1 ... (W) it should be taken that Govt have also permitted Sri Chowdhury to draw T.A though this was not provided in the order.

With these remarks the file may be returned to Eptl. H. Since the D.I.E. was not ... 30.12.49 told that the Principal, School of Arts and Crafts would not be granted T.A it may be presumed that the Govt accepted the D.I.E.'s proposals.

Develop No. No/ 125495-D.I/49-1 4-1-50

RECT. SECRETARIAT T.C. 6 JAN 1950

ADDITIONAL DEPUTY SECRETARY 2306 10 JAN 1950 FINANCE DEPARTMENT

Eptl. H. 8/1/50

Fin. also may see this dept.'s proposals at p.2 ante, reply. N Secy. 8/1/50

DSH 9/1/50 Finance

Finance (CSA)

It is proposed to permit the Principals of the Engineering colleges to become members

18

of the Association of Principals of Technical Institutions (India). The membership fees and travelling expenses etc, in connection with the meetings of the Association will have to be met by the Principals themselves and Govt funds are not involved. It is however proposed to treat the period of absence (while attending the meetings of the Association) as duty. Submitted Finance may agree to the proposal.

Kms 1-1-50 MAV 11.1.50

MV 12.1.50

E H.H

Edn. and P.H. Dept.(A).

--

A request has been recd. from the Assn. of Principals of Technical Institutions (India) that Principals of Govt. Engg. Colleges be permitted (1) to become members of the Association, and (2) to attend its annual meetings and claim T.A. for their journey from Provincial funds. The D.P.I. has proposed that (request) (1) may be allowed, the Principals meeting the membership fee from the Govt. funds allotted to the college concerned for books and periodicals, but that the Principals may be allowed to attend the (Assns) meetings at their own expense. This dept. and Finance recommend that permission to become members of the Assn. may be granted to the Principals but that neither their T.A. nor their membership fee need be met by Govt. and that, however, their period of absence may be treated as duty if they chose to attend the meetings at their own expense.

The file may be circd. to H.M.(~~E.&I.~~ P.W.) for orders whether this dept. and Fin.'s recommendation will be accepted.

MV 18/11/50

[illegible] 19/11 P(W) 5/12/50

[illegible] 12/1/50

N.D (P.W)

A draft order is subd.

50 A draft letter to the Assam Govt. w.r.t. C.F. 11 is also subd. 19/1 19/1 (W)

GOVERNMENT TO GOVT. 16 JAN 1950 3275 EDN. EPH

P+N onp 2 above

N onp 2 above

Fin no 23068R-1 12.1.50

cf. 1-2

cf. 3

pp. 2 & 4 above

SECRETARIAT DEPTT. OF EDN. & H. 16 JAN 1950 GOVT. OF M.

A draft order is subd.

May accept A

CF 11 will be replied to after decision is taken

A (16) Secret 19

No.DG/F2(14)/8640-PA.

Office of the
Director General of Industries & Supplies,

Shahjahan Road,

New Delhi, the 31st January, 1950.

GOVT. OF INDIA SECRETARIAT 7 JAN 1950 9104 EDUCATION BRANCH

From

Dr J. C. Ghosh,
Director General of
Industries & Supplies,
President, Association of
Principals of Technical Institutions (India).

To

The Secretary,
Department of Education,
Madras,
Madras.

Dear Sir,

I am glad to inform you that the 9th Annual General Conference of the Association of Principals of Technical Institutions (India) will be held under the auspices of the Banaras Hindu University at Banaras on the 26th and 28th February, 1950. Principals of Technical Institutions and prominent educationists from all over India are expected to attend this Conference.

The subjects for discussion in the Annual General Conference will be as follows :-

1. Trends of Higher Technological Education.
2. The Film in Technical Education.
3. Education for Business Administration.
4. The future Activities of Technical Colleges.
5. Consulting Engineers.

I shall be most grateful if you can kindly send a delegate from your Department to attend this Conference and take part in its discussion. The names of the delegates may be intimated to Dr D. Swarup, Principal, College of Mining & Metallurgy, Banaras Hindu University, Banaras, and a copy of the same may please be sent to me.

I shall be thankful if urgent action is taken on my request.

Yours faithfully,

20

(17)

21

ASSOCIATION OF PRINCIPALS OF TECHNICAL INSTITUTIONS (INDIA)

THE NINTH ANNUAL GENERAL CONFERENCE.

~~Saturday~~ Sunday, the 26th February, 1950. — AT THE LIBRARY HALL, BANARAS HINDU UNIVERSITY, BANARAS.

11 A.M. to 1 P.M.	Address by the Chairman of the Reception Committee. Inauguration of the Conference. Presidential Speech. Symposium on:- 1. Trends of Higher Technological Education.
1 P.M.	Lunch at the Agricultural College of the University.
2-30 P.M. to 4-30 P.M.	AT THE AGRICULTURAL COLLEGE OF THE UNIVERSITY. Executive Council Meeting. 1. Confirmation of the minutes of the Executive Council Meeting held at Delhi on 5.11.1949. 2. Report of the Hony.Secretary. 3. Report of the Zonal Secretaries. 4. Programme for 1950-51. 5. Any other matter.
5 P.M.	At Home on the grounds of the College of Mining & Metallurgy.

Monday Sunday, the 27th February, 1950. — AT THE AGRICULTURAL COLLEGE OF THE UNIVERSITY.

8-30 A.M. to 10-30 A.M.	Symposium on:- 1. Film in Technical Education. 2. Education for Business Administration. 3. The Future Activities of Technical Colleges. 4. Consulting Engineers in India.
10-30 A.M. to 1 P.M.	Visit to the Technical Institutions of the University.

P.T.O.

Contd.....

1 P.M. — Lunch at the Agricultural College of the University.

2-30 P.M. to 4 P.M. — AT THE AGRICULTURAL COLLEGE OF THE UNIVERSITY.

Annual General Meeting.

1. Confirmation of the minutes of the Annual General Meeting held at Nagpur on 4th & 5th April, 1949.
2. The Report of the Council for 1949-50.
3. Programme for 1950-51.
4. Any other matter.

4 P.M. — Boat Trip (Tea).

****

Letter/Ref. no. 9104-A-1— Edn., dt— 13/2/50.

To The President, Assn. of Principals of Tech. Institutions (India), c/o. The Principal, College of Mining & Metallurgy, Banaras.

Sir,

Ref:- Your letter no. DG/F2(14)/8640-PA, dt - 31.1.50.

I am to say that this Govt. regret that they are not sending any delegate to attend the ninth Annual General Conference of the Assn. of Principals of Technical Institutions (India), to be held at Banaras on the 26th & 27th instant.

Yours faithfully,

Copy to the ... (with copy of letter)

Note:- It is unnecessary to send

CSR

24

delegate all the way to Banaras to attend the
however, to meet his expse. The Principals of Engg.
Colleges who are desirous of becoming members of the
Assn. have, however, been recently permitted to do so ±
and attend the Assn.'s meetings at their own
expense — p.14 cf. of (N).

Dev. & Fin. may see draft overleaf
to Hon. (P. & W.).

before on

2.50 Hm 8/2/50

The draft letter of the Engr. H. and their notes
on the 1-2- above may be perused and the
file passed on to Finance

Dev 9/2/50 S 9 Dec 2 Dec Fin

Cash 10/2/50 $ 0.40

Finance

Develpt Dept. D.I

SECRETARY 9434 10 FEB 1950 DEPARTMENT

SPECIAL ASSISTANT SECRETARY TO GOVERNMENT Dev. 11338(A) 9 FEB 1950 D.I

Develpt Dept No 11338(A) D.I 50-1 10-2-50

B # 0.0 8104 A-1 11/50.

-22-27 25-1 29-1

19 25 Fin C&V

The draft on pt above may be perused and the case returned to Estt.

NM 10/2/50

11/2/50

E & G. H

Fin No 9434 C&R. 1

RET 11-2-50

18 FEB 1950

The file may be cancelled (P. W).

NM 10/2/50 S

H/T (PW)

Draft on page 1 may be seen for approval. It does not appear necessary to delegate any officer to the Conference

SECRETARY, EDN. AND R.H. DEPT. 18 FEB 1950 GOVERNMENT OF MADRAS

H.T (P.W)

13.2

13/2

Telegram :- APTI, Polytechnic, DELHI.

ASSOCIATION OF PRINCIPALS OF TECHNICAL INSTITUTIONS (INDIA)

Office : Delhi Polytechnic, Lothian Road, DELHI.

President :
Sir J. C. GHOSH, Kt, D. Sc., F.N.I.

Director :
Eastern Higher Technical Institute,
(Ministry of Education).

Vice-President :
P. N. JOSHI, M. Sc. (Tech.)
Principal, Victoria Jubilee
Technical Institute, Bombay.

ASSISTANT SECRETARY 12 JAN 1951 1648 EDUCATION DEPARTMENT

DIRECTOR OF PUBLIC INSTRUCTION CMC 18 24 51 19 JAN 1951

No. 24553/020/M. - Dated, Delhi, Janv. 11, 1951.

To

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

Dear Sir,

SUB: TENTH ANNUAL GENERAL CONFERENCE OF THE A.P.T.I. TO BE HELD ON THE 5TH, 6TH & 7TH FEBY. 1951 AT THE COLLEGE OF ENGINEERING & TECHNOLOGY, JADAVPUR CALCUTTA - ADMISSIBILITY OF T.A. & D.A. TO MEMBERS.

***

I have the honour to inform you that the 10th Annual General Conference of the Association of Principals of Technical Institutions in India will be held at the College of Engineering & Technology, Jadavpur (Calcutta) on the 5th, 6th & 7th Feby. 1951. His Excellency Dr. K.N. Katju, the Governor of West Bengal has kindly consented to inaugurate the Conference.

The subjects for discussion in the Annual General Conference will be as follows :-

1. Education for Industrial & Business Administration.
2. Future Activities of Technical Institutions.
3. Techniques of Effective Teaching.
4. Humanistic Social Science Education in Engineering Curriculum.

I shall be extremely grateful if you kindly permit the following Principals who are members of this Association, to participate in the 10th Annual General Conference and treat such participation as on duty, and if possible, grant T.A. at usual rates :-

1. Shri A. Viswanath, Principal, Engineering College, Anantapur.

P.T.O.

Contd.....

2. Shri V.S. Sadrangani, Principal, Engineering College, Kakinada.

3. Principal, Govt. College of Technology, Coimbatore.

The Government of India have recognised the Association and approved its Constitution. The Technical Education Committee of the Central Advisory Board, in their report published in 1944, not only appreciated the formation of the Association but were of opinion "that all the bodies responsible for administering technical education should not merely recognise this body and give it all assistance in their power but should also look to it increasingly for help and guidance in all matters affecting the future development of technical instruction generally and the conduct of examinations in particular."

A copy of the provisional programme of the Conference is also enclosed for your kind perusal.

Yours faithfully,
P. Gupta, 1/1/51
Hony. Secretary.

Enc. 1.

C.No. 1082-f/51

Endt. No. 1648-A.I of 17/1/51. Education Dept. (A)

Referred to the Director of Public Instruction for very early remarks.
(By Order)

To The Director of Public Instruction.

Asst. Secy. to Govt. 12.1.51
16/1

(2)

- 3 -

ASSOCIATION OF PRINCIPALS OF TECHNICAL INSTITUTIONS (INDIA)

The Tenth Annual General Conference.

Monday, the 5th February, 1951.	At the College of Engineering & Technology, Jadavpur.
11-00 A.M.	Address of Welcome by Hon'ble Dr.B.C.Roy. Inauguration of the Conference by H.E. Dr. K.N.Katju, Governor of West Bengal. Presidential Address by Dr. J.C.Ghosh.
12-30 - 1.30 P.M.	Break for lunch Lunch at the College Canteen.
	AT THE COLLEGE OF ENGINEERING & TECHNOLOGY, JADAVPUR.
1.30 - 3.00 P.M.	Executive Council Meeting 1. Confirmation of the minutes of the Executive Council Meeting held at Calcutta on 16.9.50. 2. Report of the Honorary Secretary. 3. Report of the Zonal Secretaries. 4. Programme for 1951-52. 5. Any other matter.
3.00 P.M.	Visit to Bengal Electric Lamp Works.
4.30 P.M.	AT HOME by Prof. S.K. Roy at the Bengal Electric Lamp Works.
Tuesday, the 6th February, 1951.	At the College of Engineering & Technology, Jadavpur.
9.00 A.M. - 12.30 P.M.	Symposium on:- 1. Education for Industrial and Business Administration. 2. Humanistic Social Science Education in Engineering Curriculum.
12-30 - 2-30 P.M.	Break for lunch Lunch at the College Canteen.

P.T.O.

Contd....

30

	AT THE College of Engineering & Technology, Jadavpur.
2.30 to 4.00 P.M.	Annual General Conference:-
	1. Confirmation of the minutes of the Annual General Meeting held at Banaras on 26th & 27th Feby. 1950.
	2. Report of the Council for 1950-51.
	3. Programme for 1951-52.
	4. Any other matter.
4.30 P.M.	AT HOME at the College of Engineering & Technology, Jadavpur.
Wednesday, the 7th February, 1951.	At the College of Engineering & Technology, Jadavpur.
9.00 A.M. to 12.30 P.M.	Symposium on:
	1. Future activities of technical institutions.
	2. Techniques of Effective Teaching.
12.30 - 2.00 P.M.	Break for lunch.
2.00 P.M.	Visit to Central Glass and C... Research Institute, Jadavpur.
3.00 P.M.	Visit to Jay Engineering Works.
4.30 P.M.	AT HOME by Mr. T.R. Gupta, General Manager, Jay Engineering Works.

Any member wishing to visit any of the Technical Institutions in Calcutta area will be welcome to do so and he is requested to inform the Principal concerned.

***

R.C.NO.118-L.4/51

A (2)

31

Office of the
Director of Public Instruction,
Madras, Dated 27-1-1951.

From

The Director of Public Instruction,
Madras.

To

The Secretary to Government,
Education Department,
Madras.

30 JAN 1951
3817
EDUCATION DEPARTMENT

Sir,

Sub: Conference - Tenth Annual General Conference of the Association of Principals of Technical Institutions (India) - February 1951 at Jadavpur, Calcutta

Ref: Government Endt.No.1648-A.1-Education dated 17-1-1951.

---

p.2 ante

(K) of 14

With reference to the Government Endorsement cited above, I am to invite your attention to G.O.No.Ms.182 Education dated 24-1-1950 wherein Government have permitted such of the Principals of Government Engineering Colleges as desire to become members of the Association of Principals of Technical Institutions (India) Delhi to do so at their own cost and have also permitted them to attend the annual general meetings of the Association at their own expense and have also stated that the period of absence would however be treated as duty. In view of the above no special sanction is necessary this year for such of the Principals of Engineering Colleges as are members of the above Association to attend the Tenth Annual General Conference to be held in February 1951. Permission to attend the conference will be granted if the Principals who are members of the Association apply for the same.

In this connection I am to state that Sri A. Viswanath, Principal, Engineering College, Anantapur has gone on leave for 120

6 32

:2:

120 days from 10th January 1951 a.n.

The Government Endorsement quoted above is herewith resubmitted.

Yours faithfully,

for DIRECTOR OF PUBLIC INSTRUCTION.

RVR 27/1/-

Edn. dept. (K)

Letter/Ref. no. 1648 A.2 dt. 3.2.51. (27)

33

To

The Hon. Secy.,
Assen. of Prs. of Tech. Institutions (Inst
Delhi Polytechnic Lothian Road,
(Inst estd.) Delhi.

Sir,

Ref:- Your no. 24553/020/M, d/- 11-1-51.

I am to invite your attention to this Govt's Proce. Ms. no. 182-Edn., d/- 24-1-50 (copy enclosed) & to state that if such of the Principals of the Govt. Engg. Colleges in this State as members of your Assen. apply permission to attend its Tenth Annual General Conference at Jadavpur at their own expense the permission will be granted & their absence from their hdqrs. in that connection will be treated as duty.

Yr. obdt.,

Copy to the O.T. (Ref:- His no. 118-C4/51, d/- 27.1.51).

3 Per

8-34

Government of India,
Indian Institute of Technology
(Kharagpur),
6, Esplanade East, Calcutta.

No. 24251-350/020/A. Dated January 11, 1951.

ASSISTANT SECRETARY
16 JAN 1951
1836
EDUCATION DEPARTMENT

To

The Secretary to the
Govt. of Madras,
Department of Education,
Madras.

Dear Sir,

I am glad to inform you that the 10th Annual General Conference of the Association of Principals of Technical Institutions in India will be held at the College of Engineering & Technology, Jadavpur (Calcutta) on the 5th, 6th & 7th Feby. 1951. His Excellency Dr. K.N.Katju, the Governor of West Bengal has kindly consented to inaugurate the Conference. Principals of Technical Institutions and prominent educationists from all over India are expected to attend this Conference.

The subjects for discussion in the Annual General Conference will be as follows :-

1. Education for Industrial & Business Administration.
2. Future Activities of Technical Institutions.
3. Techniques of Effective Teaching.
4. Humanistic Social Science Education in Engineering Curriculum.

I shall be most grateful if you can kindly send a delegate from your Department to attend this Conference and take part in its discussion. The name of the delegate may be intimated to Dr. T.Sen, Principal, College of Engineering & Technology, P.O. Jadavpur College, Calcutta-32, and a copy of the same may please be sent to me.

I shall be thankful if urgent action is taken on my request.

Yours faithfully,
H. Ghosh
President,
Association of Principals of Technical Institutions (India).

V. Urgent

DIRECTOR OF PI
Re 1182 4/51
25 JAN 1951

Education Dept. (A)

Endt. no. 1648 A-2 Dated 24.1.51.

Referred to the Director of Public Instruction, in contn. of Endt. no. 1648 A-1, dt. - 17-1-51, sent in for very early remarks.

J. B.M Engg
Asst. Secy. to Govt.
24.1.51.

To The Director of Public Instruction.

Letters of the Association of Principals of Technical Institutions (India) —

(i) No. 24251-350/020/A, dt. 11-1-51, &
(ii) no. 24677/020/M, dt-23-1-51.

ASSOCIATION OF PRINCIPALS OF TECHNICAL INSTITUTIONS (INDIA)

The Tenth Annual General Conference.

Monday, the 5th February, 1951.	At the College of Engineering & Technology, Jadavpur.
11-00 A.M.	Address of Welcome by Hon'ble Dr.B.C.Ry.
	Inauguration of the Conference by H.E. Dr. K.N.Katju, Governor of West Bengal.
	Presidential Address by Dr. J.C.Ghosh.
12-30 - 1.30 P.M.	Break for lunch
	Lunch at the College Canteen.
	AT THE COLLEGE OF ENGINEERING & TECHNOLOGY, JADAVPUR.
1.30 - 3.00 P.M.	Executive Council Meeting.
	1. Confirmation of the minutes of the Executive Council Meeting, held at Calcutta on 16.9.50.
	2. Report of the Honorary Secretary.
	3. Report of the Zonal Secretaries.
	4. Programme for 1951-52.
	5. Any other matter.
3.00 P.M.	Visit to Bengal Electric Lamp Works.
4.30 P.M.	AT HOME by Prof. S.K. Roy at the Bengal Electric Lamp Works.
Tuesday, the 6th February, 1951.	At the College of Engineering & Technology, Jadavpur.
9.00 A.M. - 12.30 P.M.	Symposium on:-
	1. Education for Industrial and Business Administration.
	2. Humanistic Social Science Education in Engineering Curriculum.
12-30 - 2-30 P.M.	Break for lunch
	Lunch at the College Canteen.

P.T.O.

Contd.....

AT THE College of Engineering & Technology, Jadavpur.

2.30 to 4.00 P.M.	Annual General Conference:-
	1. Confirmation of the minutes of the Annual General Meeting held at Banaras on 26th & 27th Feby. 1950.
	2. Report of the Council for 1950-51.
	3. Programme for 1951-52.
	4. Any other matter.
4.30 P.M.	AT HOME at the College of Engineering & Technology, Jadavpur.

Wednesday, the 7th February, 1951. At the College of Engineering & Technology, Jadavpur.

9.00 A.M. to 12.30 P.M.	Symposium on:
	1. Future activities of technical institutions.
	2. Techniques of Effective Teaching.
12.30 - 2.00 P.M.	Break for lunch.
2.00 P.M.	Visit to Central Glass and Ceramic Research Institute, Jadavpur.
3.00 P.M.	Visit to Jay Engineering Works.
4.30 P.M.	AT HOME by Mr. T.R. Gupta, General Manager, Jay Engineering Works.

Any member wishing to visit any of the Technical Institutions in Calcutta area will be welcome to do so and he is requested to inform the Principal concerned.

***

ASSISTANT SECRETARY EDUCATION DEPARTMENT 24 JAN 1951 3034

Telegram :- APTI, Polytechnic. DELHI.

ASSOCIATION OF PRINCIPALS OF TECHNICAL INSTITUTIONS (INDIA)

Office : Delhi Polytechnic, Lothian Road, DELHI.

President
Sir J. C. GHOSH, Kt, D. Sc., F.N.I.
Director :
Eastern Higher Technical Institute, (Ministry of Education).

Vice-President :
P. N. JOSHI, M. Sc. (Tech)., Principal, Victoria Jubilee Technical Institute, Bombay.

IMMEDIATE.

No. 24697/020/M. Dated, Delhi, Jany. 23, 1951.

To

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

Dear Sir,

SUB: TENTH ANNUAL GENERAL CONFERENCE OF THE A.P.T.I.(I). TO BE HELD ON THE 5TH, 6TH & 7TH FEBY. 1951 AT THE COLLEGE OF ENGINEERING & TECHNOLOGY, JADAVPUR, CALCUTTA - ADMISSIBILITY OF T.A. & D.A. TO Lt. Col. S. PAUL.

***

This is in continuation to this office letter No. 24553/020/M, dated 11.1.1951. I shall be extremely grateful if you kindly permit Lt. Col. S. Paul, Principal, College of Engineering, Guindy, who is the member of this Association, to participate in the 10th Annual General Conference and treat such participation as on duty, and if possible, grant T.A. at usual rates.

Yours faithfully,

P. Gupta, 23/1/51

Assistant Secretary

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14

(27) A.SI A 41

R.C. NO.118 I4/51.

OFFICE OF THE DIRECTOR OF
PUBLIC INSTRUCTION,
Madras, Dated [illegible]-2-1951.

ASSISTANT SECRETARY
5 FEB 1951
4609
EDUCATION DEPARTMENT

FROM
THE DIRECTOR OF PUBLIC INSTRUCTION,
MADRAS.

TO
The Secretary to Government,
Education Department, Madras.

Sir,

SUB: TENTH ANNUAL GENERAL CONFERENCE OF THE ASSOCIATION OF PRINCIPALS OF TECHNICAL INSTITUTIONS (INDIA) - February 1951 at Jadavpur, Calcutta.

REF: Government Endt. No.1648-A.2-Edn. dated 24--1--1951.

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p. 10 ante
pp. 5-6 ante

In continuation of my letter RC.No.118-I4/51 dated 27-1-1951 I am to state that I do not consider it necessary to depute an officer of this Department to attend the above conference at Government cost.

If Lt.Col.S.Paul, Principal, Engineering College, Guindy, applies for permission to attend the above conference it will be granted.

The Government Endorsement quoted above together with its enclosures is herewith resubmitted.

Yours faithfully,

for Director of Public Instruction.

Edn. dept. (A)
Reply to the Assoc. has already been sent — p. 1 ante. May be filed.

P.S.

Ram.2/2.

COMPLIMENTARY COPY

Association

OF

Principals of Technical institutions (India)

(Estab.—1941)

CONSTITUTION

AND

LIST OF MEMBERS

1949-50

CONTENTS

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29

THE ASSOCIATION OF PRINCIPALS OF TECHNICAL INSTITUTIONS (INDIA)

MEMORANDUM OF ASSOCIATION

I. The name of Association is "The Association of Principals of Technical Institutions (India)".

II. The registered office of the Association will be situated at Delhi or at such other place in India as the Association may from time to time decide.

III. **The objects for which the Association is established are :—**

(1) To confer on all matters relating to the work now conducted and which may be conducted in Technical Institutions and to take such action with reference thereto as seems desirable.

(2) To make representation to or communicate with Central, Provincial or State Governments or any other authority on any matter affecting technical education in India.

(3) To communicate with institutions of foreign countries relating to Technical Education in India.

(4) To elect or nominate representatives on the All-India Council for Technical Education, All-India Boards of Technical Studies and other bodies to be set up having former objects in view.

(5) To collect information relating to technical education in India.

(6) To encourage an uniform standard of technical education throughout India.

(7) To frame syllabus of studies for different technological subjects in various grades.

(8) To assist Central, Provincial or State Governments in matters relating to technical education.

(9) To get the courses of technical studies in India known abroad.

(10) To accept grant, donation, endowment or subscription conditionally or unconditionally from Governments and other interested parties.

(11) To invest and spend funds at the disposal of the Association in such manner as may from time be determined.

(12) To assist the Central, Provincial or State Governments and institutions for employment in technical and industrial and scientific departments.

(13) To assist or co-operate with the Government in any scheme for advancement of technical education in India, and

(14) To do all such other things as may be conducive or incidental to the attainment of the above objects or any of them.

IV. The income and property of the Association whencesoever derived shall be applied solely for or towards the promotion of the objects of the Association as herein set forth, and no portion thereof shall be paid or transferred directly or indirectly by way of bonus or profit to the persons who are, or at any time have been members of the Association or to any person or persons claiming through all or any of them. Provided that nothing herein contained shall prevent the payment in good faith of remuneration to any members who may be appointed officers or servants of the Association or to any other person or persons in return for services actually rendered to the Association or for the payment of actual travelling allowances in connection with any business of the Association or payment of interest on money borrowed from any member of the Association.

V. If upon winding up or dissolution of the Association, there remains after the satisfaction of all debts and liabilities, any surplus money or property whatsoever, the same shall not be paid to or distributed among the members of the Association but shall be given or transferred to some other societies having objects similar to the objects of the Association to be determined by the members of the Association present at a general meeting at or before the time of the Dissolution.

CONSTITUTION

1. ***Membership.*** *Members of the Association shall be Ordinary Members, Life Members and Honorary Members.* In the case of Ordinary Members, membership shall be limited to persons holding the position of whole-time principal of one the following :—

(*a*) Technological, Commercial, or Art Institution which provides a full-time progressive course of instruction covering at least 3 years, for students over the age of 16, leading to a degree, diploma or certificates, provided that the Institution in question is affiliated to a University or is maintained by or receives a grant from the Central Government, the Government of a Province or of an Indian State.

(*b*) High School offering full-time instruction of a technological or vocational character to all students for a period of not less than 3 years.

(*c*) Institution imparting progressive part-time instruction in technological, art or commercial subjects, leading up to qualifications under (*a*) above, provided the institution has had at least 100 individual students on its rolls in each of the 3 consecutive calendar years, prior to application for membership.

2. (*a*) A member who is on furlough shall remain a member not withstanding the fact that another person is officiating in his place.

(*b*) An officiating principal can be a member during the period for which he so officiates.

3. Notwithstanding what has been laid down above, the Council reserves the right to accept or reject any application for membership subject to the approval of a general meeting.

4. **Life Membership,** admission to which shall be made at the annual general meeting on the nomination of the Council, shall be limited to persons who, having been ordinary members, have retired from active service with an institution as defined in clause I above.

5. Honorary Members shall be nominated by the Council for election at the annual general meeting.

6. ***Associateship.*** Associates shall be persons having held the post of whole time Principal of an institution mentioned in clause I, temporarily, and who have reverted to their substantive post in the same institution.

7. **Rights and privileges of membership** Any member shall, among others, have the following rights and privileges :—

(1) To obtain a copy of the annual report and accounts.

(2) To obtain all other publications of the Association either free of cost or at such reduced rates as the Council may from time to time decide.

(3) To be present and discuss and vote in any general meeting on any question referred to such general meeting or to give opinion on any question referred to the general body of members by circular or otherwise.

(4) To nominate other qualified members for election, to stand for election or be elected to the Executive Council.

(5) To stand for election as representative of the Association to any public bodies.

(6) To seek the help of the Association in obtaining statistical or other information for technical education.

8. **Register of Members**. A register of members shall be kept in which shall be set forth the names and addresses of the members, ordinary, life or Honorary for the time being, and in which all changes in membership taking place from time to time shall be recorded.

9. **Voting**. Members and Life Members shall each have one vote. Honorary Members shall have no vote but may attend all general meetings. The Chairman of Committee of Meeting shall have a casting vote in addition to his own individual vote. Associates shall have no vote. An Officiating Principal (or the person in active charge of the institution) shall have a vote only whilst holding the office of Principal in the absence of the Principal. Should the Principal, be temporarily in charge of another Institution as defined in clause I, both have the right to vote.

10. **Subscription**. The subscription of each Ordinary Member shall

(31)

be Rs. 10/- a year. The fee for Life membership shall be the amount of one year's Ordinary Membership subscription i. e. Rs. 10. An Ordinary Member may. if he so desires, pay a compounded subscription of Rs. 100 to cover the whole period of active Ordinary Membership.

Subscription shall be due in advance on the 1st January in each year. Fees for Life Membership shall accompany applications for transference to this class. Members who have not paid their subscriptions by the beginning of December will receive notice of the same by registered letter from the Hony. Secretary in calling the Annual General Meeting, and such defaulting members will have no power to vote until their arrears of subscription have been paid.

11. *Office bearers and their Functions*. The Office-bearers of the Association shall consist of :

The President,
The Vice-President,
The Hony. Treasurer and
The Hony. Secretary or two Joint Hony. Secretaries.

Casual vacancies may be filled by the Council and remain valid until the next Annual General Meeting.

The Officers shall be proposed and seconded in writing not less than 60 days prior to the Annual General Meeting and elected by a majortiy by postal vote. The results of the election will be announced by the Hony. Secretary at the Annual General Meeting.

The Council may appoint an additional Hony. Secretary who need not be a member of the Association. The Council may co-opt members of the Association to make the Council fully representative of all interests.

President.

(1) The President shall preside at all meetings of the Council, and at General Meeting. In a General Meeting he may address the members

on such subject as be may deem proper to their notice.

(2) The president may also at any time when he may deem proper communicate to the Association or Council such matters and may make such suggestions as may in his opinion tend to advance the cause of technical education and increase the usefulness of the Association.

(3) In case of emergency, the president may issue statement on question of Technical Education matters or communicate with the Government or public bodies on matters that are related to the objects of the Association and all such statements issued or actions taken in the name of the Association will be reported to the Council as soon thereafter as possible; but such views or action shall not be taken to represent the views of the Association unles and until approved by the Council.

(4) The President shall also perform such other duties as may be incidental to the office of the President.

Vice-President.

In the absence of the President, the Vice-President shall have the power and perform the duties of the President.

Hony. Secretary

The Hony. Secretary shall

(1) keep accurate minutes of proceedings of all meetings of the Association, Council or Sub-committees,

(2) have charge of all correspondence,

(3) keep proper accounts of the fund of the Association,

(4) collect all dues on behalf of the Association,

(5) prepare or draft notes, memorandum, reports, accounts and statistics in connection with the affairs of the Association, and

(6) maintain the register of members.

Hony. Treasurer.

(1) The Honorary Treasurer shall be in charge of the funds of the Association as well as of properties, and he shall sign all cheques on behalf of the Association.

(2) The Honorary Treasurer shall also supervise the proper keeping of the accounts of the funds of the Association.

(3) The Honorary Treasurer has power to incur any expenditure sanctioned by the Council.

Assistant Secretary.

The Assistant Secretary shall be a whole-time Officer of the Association and shall assist the Hony. Secretary and Hony. Treasurer in the business and affairs of the Association.

12. **Meetings of the Association.** The official year of the Association shall be the calendar year.

(*a*) An annual general meeting should be held in October at a place, to be decided by the Council.

The Business shall be :—

(*i*) to receive the Annual Report of the Council,

(*ii*) to receive the Financial Statement,

(*iii*) to elect the Office-beares of the Association and the members the Council, when necessary,

(*iv*) to elect auditors,

(*v*) to transact any other business in accordance with clause (III) of the Memorandum of Association.

(*b*) A special General Meeting shall be called by a resolution of the Council, or at the request of ten members, forwarded in writing to the Hony, Secretary. Fourteen days' notice of such a meeting shall be considered sufficient, and the meeting shall take place within twenty-eight days of the receipt of the request by the Honorary Secretary.

13. (*a*) **District Branches.** Members shall be grouped as belonging to one or other of the following districts, viz :—

Northern
Southern
Eastern
Western
Central

(*b*) Two members from each Branch shall be elected to the Council as provided in clause No. 14 below. They will elect a Secretary of the Branch from amongst themselves who will be responsible for the proper organisation of the Branch.

(*c*) The District Branch may meet at such time and place as it may consider convenient.

(*d*) each such branch may form sub-branches if desired.

(*e*) The rules for the management of such branches and sub-branches shall be framed by the Council and approved at a General Meeting.

(*f*) The Council may sanction an annual grant to the Secretary of Branch for clerical allowance and other incidental expenses.

14. (*a*) **Council**. There shall be a council, consisting of the office-bearers of the Association, together with the retiring President and ten district representatives, two from each district.

(*b*) The Council shall be the Governing Body of the Association and shall have power to do all or any thing conducive to the attainment of the objects of the Association.

15. (*a*) **Election**. Election of the Council shall be held every three years. A district representative on the Council shall continue in office for three years and shall be eligible for re-election.

(*b*) The retiring President shall be a member of the Council for a period of one year.

(*c*) Each district will submit names to the Council for nomination for election. The election shall be made by the General Body.

(*d*) The Council shall be empowered to make salaried appointments as it considers necessary for the discharge of its duties and responsibilities.

16. **Meeting of the Council**. Meetings shall take place as often as the Council may decide, and at such places as may be found most convenient. The quorum shall be four. The Council may be summoned by the President on his own motion or on receipt of a request in writing by three members of the Council, such meeting to be held within fourteen days of the receipt of request by the Honorary Secretary.

17. **Notice of Meetings**. Notices calling General and Council meetings, other than as provided in the last preceeding clause, shall be despatched by the Honorary Secretary—2 months in advance in the case of the General meeting and 21 days in the case of Council Meeting.

18. **Alterations to Rules**. No alteration shall be made in these rules except at the annual general meeting and notice proposing any alterations must be in the hands of the Honorary Secretary one month before the date of the Annual General Meeting, and be circulated amongst the members at least one week before the date of the Meeting. Such alterations shall require by show of hands, or such other method as the Chairman of the Meeting may decide, a two-thirds majority of members present at the meeting.

19. **Funds**. The funds of the Association shall be deposited in a bank approved by the Council and all moneys of the Association shall be paid into the Association's account in the bank.

20. **Auditor**. The accounts of the Association shall be duly audited by an auditor who shall be appointed at the Annual General Meeting which shall also fix his remuneration, if any.

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1. **Principals** should at all times preserve the dignity and intersts of their profession and of the Association by a high standard of professional and personal conduct.

2. They should ensure the greatest possible freedom in academic matters and they should resist any pressure which is not in the best interests of the institution.

3. They should not engage in personal advertisement or canvass for an appointment; nor take any action which is detrimental to sister institutions.

4. They should at all times endeavour to establish and maintain the best possible conditions of service for their teaching and non-teaching staff.

5. Principals should at all time be prepared to give to other Principals information on matters relating to the organization, equipment and administration of their institutions.

6. When a principal represents the Association he should so far as possible state the policy of the Association. If he is in disagreement with the policy he may inform the association and if the council decides, he will resign his representation.

7. Where, having regard to this code, a member wishes to make a complaint, or a charge against another member of the Association he should make his complaint in writing to the Council. If the council is of the opinion that a prima facie case of infringement of the code has been established it will appoint a committee for investigation. On the report of the committee, the Council will make a final decision as to what action shall be taken.

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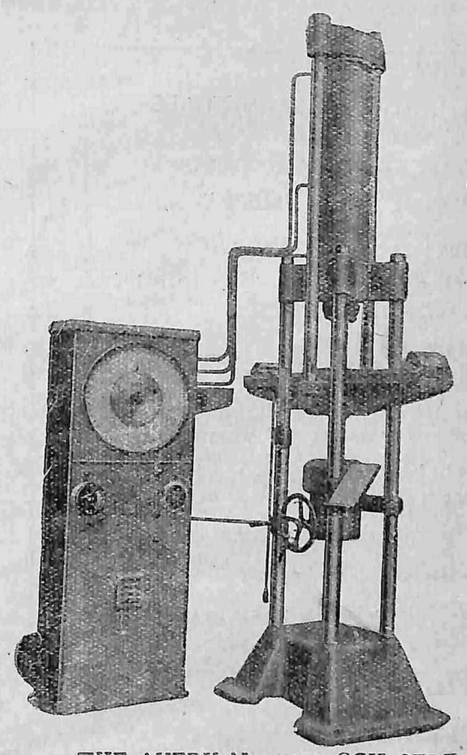
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L. N. WELINGKAR,
Principal.

(vx)

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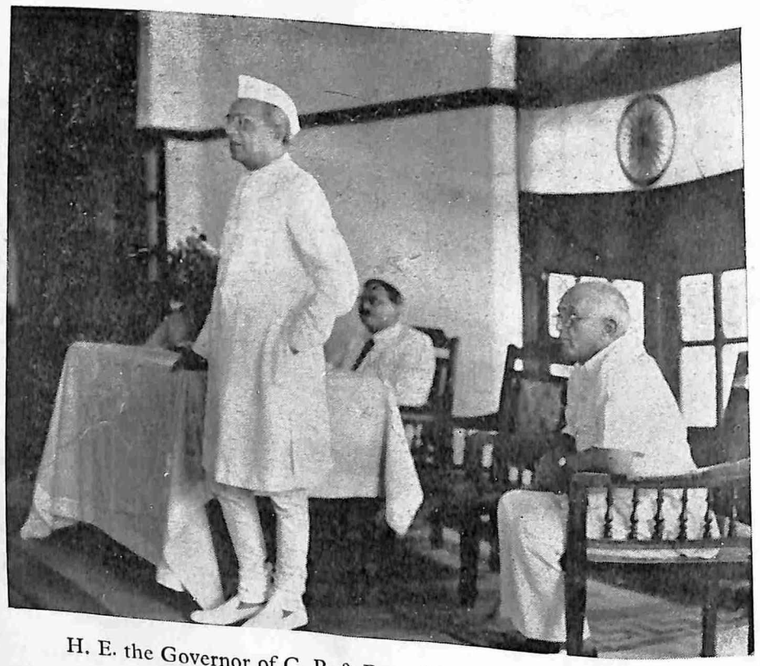
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ADMISSIONS ARE MADE TO BOTH CLASSES THROUGH A COMPETITIVE ENTRANCE EXAMINATION WHICH IS USUALLY HELD IN THE FIRST WEEK OF JUNE. THE EXAMINATIONS THIS YEAR START FROM JUNE 29, 1949.

THE LAST DATE FOR THE RECEIPT OF APPLICATIONS THIS YEAR IS MAY, 31, 1949 FOR BOTH THE EXAMINATIONS.

PARTICULARS OF THE SYLLABUSES FOR EXAMINATIONS ARE GIVEN IN THE CIRCULARS WHICH ARE SENT ON REQUEST ON RECEIPT OF POSTAGE 9 PIES STAMPS.

ANNUAL GENERAL MEETING OF THE A. P. T. I. (I)
held at
GOVERNMENT ENGINEERING SCHOOL, NAGPUR,
on the 4th April, 1949.



H. E. the Governor of C. P. & Berar inaugurating the Conference.

(49)

PROBLEMS OF TECHNICAL INSTITUTIONS*

B. C. BHATTACHARYA, M. Sc. Tech. (Manchester) B. Sc. (Cal.) A. M. C. T., A. T. I.,
Principal, Bengal Textile Institute, Serampore.

Introduction

THE recent political changes that have taken place in India have had their repercussions in every sphere of the life of the people. The present urgent need for stepping up the industrial production of the country is admitted on all hands. The role of the Technical Institutions in this process of industrialization is vital. For, it is they who produce the technical personnel without whom no improvement in production is possible. It is for this reason that the authorities of many such institutions have had to re-examine their present position and to prepare schemes of re-organization with a view to meeting the demands that might be made on them in future.

There are, of course, some problems which are peculiar to each institution. But there are others which are common to many and a discussion of such problems is not only likely to be of mutual advantage but may also lead to the adoption of certain concerted measures which might greatly help the individual institutions to overcome their particular difficulties. It is, therefore, proposed to discuss in this short paper a few such salient problems.

Relation with Industry

Leaving out of consideration the cases of a few technical men employed by the various Governments and public bodies the vast majority of such persons are ultimately destined for employment in Industry. It is therefore absolutely essential to correlate the output of each category of technical personnel to the demand of Industry. If a number largely in excess of that which can be reasonably absorbed is produced by the Technical

*Paper read at Nagpur Conference at the Symposium on the 4th April 1949.

of 16 eading to a degree, diploma or certificates, provic that the institution in question is affiliated to a versity or is maintained by or receives a grant om the Central Government, the Government of a Provce or of an Indian State.

(b) High ol offering full-time instruction of a technical or vocational character to all students for a riod of not less than 3 years.

(c) Institution imparting progressive part-time instruction in technological, art or commercial subjects, leading up to alifications under (a) above, provided the institution has had at least 100 individual students on itsolls in each of the 3 consecutive calendar years, rior to application for membership.

There a council to act as a governing body of the Association. The Aociation holds one general meeting in a year.

It is uested that you will kindly help and co-operate by allowing rincipals under your control to attend annual meeting of th Association and pay their T.A. thereof. The annual general eting is usually held in January/February.

Yours faithfully,
A Dasgupta
Hony. Secretary.

Encl. 2.

DIRECTOR OF PUBLIC INSTRUCTION
10 AUG 1949
MADRAS

Pr. 12142/49.

Endt. No. 58187-A, Education and Public Health Dept. (A) Dated 11-8-49.

Referred to the Director of Public Instruction for remarks.

Asst. Secy. to Govt.

Public Instruction
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8/8/49

To the Director of Public Instruction (with two booklets & the papers returned)

Answ.

Institutions, within a short time severe unemployment amongst technical men will be the order of the day. Such a state of affairs cannot be healthy and will ultimatey affect the reputation of the institutions themselves.

It is therefore desirable that statistics should be collected regarding the annual requirements of technical personnel of different categories in each Province. The Technical Institutions of the Province should then be required to turn out the requisite number of technically trained men allowing a little margin to provide for the normal casualties and wastage and also for employment in other walks of life. If follows that the output of technical personnel should keep pace with the industrialization of the country. In other words, the supply should be closely correlated to the demand. Such an arrangement is likely to prove satisfactory to everybody concerned. On the one hand this will prevent unemployment amongst technical men and on the other Industry will be assured of a steady supply of such men so that the industrialisation of the country will not be held up for want of technical personnel.

This shows the necessity of planning in advance. As the output of the technical personnel cannot be increased overnight it is necessary to plan several years ahead. In order to enable the authorities of the Technical Institutions to formulate detailed plans in respect of accommodation, equipment, staff, raw materials etc., they should be placed in possession of data regarding the possible demands of Industry years in advance.

This is not the only matter in which close collaboration between Industry and Technical Institutions is desirable. Such co-operation in technical matters is equally urgent and this is likely to promote the best interests of both. There is no reason why industrialists in India should not utilize the services of the technical experts in the educational institutions to solve the various technical problems which crop up from time to time in all industries. This is common practice in all the industrialized countries

of the west and it results in mutual benefit. On the one hand, the industrialist gets the benefit of the best technical advice on payment of a nominal fee and on the other, the technical personnel employed in teaching are kept abreast of the times by being brought face to face with practical problems. Such close contact with Industry also helps the teachers in the Technical Institutions in placing their students which is a matter of great importance to the latter.

Such close collaboration between Industry and Technical Institutions presupposes that the captains of industry take an active interest in these institutions and regard them as their own. They should be given suitable representation on the Governing Bodies of the various Technical Institutions. At the same time, they should be prepared to share the cost of running these institutions by making handsome endowments to them. Only in this way can the development of Technical Education be speeded up without placing too heavy a burden on the State. Industrialists should look upon such financial contribution not as an expenditure but as an investment which is likely to yield rich dividends in future in the shape of well trained technicians whom they will be able to utilize for the expansion of their respective industries.

Administration

Technical Institutions in India are of various kinds. Quite a large number of them are Government institutions. Others get Government help in various forms. These two categories comprise the bulk of such institutions. The change in the outlook of the people and the various Governments regarding the importance of technical education brought about by the recent political changes should be reflected in some improvement in the administration of these institutions.

Taking, for instance, the case of the Government institutions, it is found that their administrative control is vested in two separate Directorates namely, the Education and the Indus-

such work should not be considered as unnecssary and whether the Technical Institutions should not be exempted from the operation of the Factories Act. It may be mentioned here that the new Factories Act which came into effect on the 1st April, 1949, contains a section under which the Government have the power to exempt any public institution from the operation of the Act. It is therefore for consideration whether Technical Institutions should not take advantage of this provision of the law and try to get the necessary exemption.

In addition to the elimination of all unnecessary work and avoidable red tape there should be much greater decentralization of power than at present, particularly in the case of Government institutions. If the man on the spot is vested with greater powers there will be a considerable reduction in office work all round and therefore increase in efficiency to that extent may be expected. It may, however, be argued that such wide delegation of powers may, at least in some cases, lead to abuses. But abuse of power may take place at any level and the higher the position of the officer who abuses his powers the greater the potential danger. In addition to this, remote control suffers from another serious drawback namely, slowness in making decisions which, in some cases, may do incalculable harm to the interests of the institution. If the Heads of the institutions are given wide powers it may be reasonably expected that decisions uniformity would be made much more quickly and what would be lost in as between the different institutions would be more than made up by speedier disposal of all matters and consequent increase in the efficiency of administration.

Pari passu with the increase in the powers of the Principal of a Technical Institution he should be relieved of certain purely routine administrative duties which do not generally call for mature judgement. All such duties should be delegated to the Vice-Principal, Registrar or Personal Assistant as the case may be. The Principal will, no doubt, deal personally with all matters which he considers to be important.

In such a scheme of things as envisaged above, the reputation of a Technical College will largely depend on the personal qualities of its Principal. In filling such posts great care should, therefore, be taken to select the right type of person. The Principal of a Technical Institution should have not only high academic and research qualifications but also considerable practical experience in Industry so as to be able to inspire the confidence of the industrialists. In addition to these he should have a flair for teaching and the ability to appreciate the point of view of the students. He should have considerable administrative ability and drive. Last but not the least, he should be a man of strong personality and absolutely unimpeachable character. It is only such a person who is able to command the respect of the staff and the students and develop his institution on right lines.

It will be seen from the above that the Principal of a Technical College should not only possess fairly high qualifications but also considerable practical experience and administrative ability. Such qualifications can only be found amongst men of maturer age. The existing rule regarding the maximum age of entry into Government service should therefore, be waived in the case of such posts. Emoluments offered should also be commensurate with the age, qualifications and experience of the candidate and bear some relation to what he can command outside.

Technical Education is making continual progress particularly in the highly industrialized countries of the West. It is therefore highly desirable that Principals of Technical Institutions should be given the necessary facilities for visting Technical Institutions and factories in these countries from time to time. It is only by this means that they will be able to keep abreast of the times and plan the development of their respective institutions on up-to-date lines. This matter has become very urgent at the present moment when many Principals are busy preparing schemes of development. If some of them are sent abroad immediately they will, no doubt, be able to incorporate the results

of their experience in their new development schemes. It is, therefore, highly desirable that the Central and Provincial Governments should be moved immediately to create a number of Travelling Fellowships for the Principals of Technical Institutions.

In this connection it is satisfactory to note that the Government of India propose to send abroad at an early date certain scientific and technical personnel. It is to be hoped that the case of the Principals will be given due consideration in this connection.

Finance

No institution can run smoothly or plan ahead unless its financial position is assured. Here again there is considerable diversity as between the different institutions. Some of them get considerable help from the public in the shape of donations or endowments, others get none. Some institutions are run entirely by the Government, others depend to a considerable extent on Government grants. Barring a few honourable exceptions it will, perhaps, be correct to say that most Technical Institutions depend on the Provincial or Central Government for their financial stability. This has, perhaps, got to be so in the present stage of development of the country. Now that a national Government is in power there is every reason to hope that the Technical Institutions will get from them all the help it is possible for them to give.

From the practical point of view, however, it will, perhaps be desirable to have the responsibilities of the Centre and Provinces clearly defined. The Government of India have recently recognized certain industries as being of national importance and have decided to exercise the required control over them from the Centre. In the circumstances, it is only reasonable to expect that the Centre should also shoulder the responsibility of running such Technical Institutions as cater for industries of national importance. This will be a step in the right direction and will not only prevent duplication and overlapping but will also hasten the standardization of staff, equipment, courses etc.

Technical Education being an expensive affair, careful and comprehensive planning from the standpoint of national need is called for. In this connection the existing conditions in each zone or region should be given due consideration and its special needs visualized for a number of years ahead. As progress of Technical Education should be correlated to the development of industries the Central Government would appear to be the best party to undertake the planning of both.

As regards the remaining industries, the responsibility of running the Technical Institutions catering for them should mainly rest on the Provinces.

There are, perhaps, many institutions which cater for both the above types of industries. The financial responsibilities for running such institutions should be shared by the Provincial and Central Governments on an agreed basis.

At the same time, industrialists who are likely to benefit by the work of the Technical Institutions should be requested to share the cost of Technical Education by making liberal endowments and donations to the different institutions.

Staff

The success of any institution depends very largely on the quality of the persons entrusted with the responsibility of running it. The greatest care should therefore be taken in the selection of staff. In making appointments all considerations other than those of merit should be rigidly excluded. The personal character of each individul should be given due consideration as only persons with a high standard of personal integrity can command the respect of the students and thereby help in moulding their character. For most of the superior posts high academic qualifications combined with sufficient research and practical experience are needed. As the gaining of experience takes time it is only reasonable that such technical personnel should be given a starting pay in keeping with their age and experience.

In the case of technical posts which are pensionable all incumbents should be granted full pension on reaching the age of superannuation, irrespective of the length of their service. Technical personnel who are recruited at a comparatively advanced age specially in view of their experience deserve this consideration.

As regards the scales of pay of technical staff, the widest diversity exists at present. This is, no doubt, due to local conditions and the financial position of each institution. But now that the country is entering into a new phase of industrial development the time has probably arrived for a re-examination of the whole position with a view to meeting the future needs of technical personnel of various categories. It is therefore suggested that the existing scales of pay in all Technical Institutions should be reviewed at an early date and certain standard scales suggested for the future guidance of the authorities concerned. The scales suggested should not only take into consideration the present high cost of living but also the fact that in the case of many posts the possession of considerable practical experience in addition to academic qualifications is essential.

Professors and Senior Lecturers in Technical Colleges should be men having not only a high standing in academic circles but also considerable practical experience in Industry. In fact, they should be recognized Experts in their respective fields. They should be freely permitted to act as Consulting Experts to Industry. Such a connection between Industry and Technical Institutions will ultimately redound to the benefit of both.

Each higher grade Technical College should also be a centre of research in its particular line. All the Professors and Senior Lecturers should be men with a fair amount of research experience and the ability to guide research scholars. In every such institution a number of research scholarships should be provided. The research workers should be given all the facilities required for their work such as, laboratory, special apparatus

and library facilities. Research scholars should be trained to tackle both fundamental and practical problems connected with the different industries.

The participation of the senior teaching staff in all the above activities presupposes that they are not over burdened with routine lecture work. A teacher who is expected to guide research workers and also to solve the practical problems of Industry must necessarily have a reasonable amount of time free from lecture work. This point needs emphasizing in view of the prevailing tendency in certain quarters to judge the value of a teacher merely by the number of hours of lecture work put in by him per week.

If the senior members of the teaching staff are required to devote a part of their time to research and solving practical problems it follows as a necessary corollary that the gap should be filled up by the appointment of a larger number of technical men. In other words, every Technical Institution carrying on research work should be so staffed as to leave every senior member some time free for guiding research and solving the practical problems with which Industry may be faced.

Students

The students are the human raw material with which a Technical Institution works. Unless they are of the right type the finished product cannot be expected to be of the best quality. It is therefore highly desirable that only the right type of students should be granted admission into a Technical College. In addition to a knowledge of the basic sciences, the other qualities required are mental alertness, physical fitness and a sense of dignity of labour and discipline.

Most Principals will probably agree that the selection of a comparatively small number of candidates for admission out of a large number of applicants is a job which is inherently difficult. In many cases it is made infinitely more so by the powerful

influences that are brought to bear on the persons responsible for making the final selection. Even conceding that, in the very nature of things, this is, perhaps, only natural, the fact cannot be denied that Principals are sometimes placed in a very embarassing position, It is therefore highly desirable that the convention should be firmly established that no officer should recommend the admission of any candidate to an officer subordinate to him. It should also be clearly recognized that the Principal is the final authority in matters relating to the admission.

As to the best method of selecting candidates for admission it is very difficult to say anything dogmatically. Some people prefer a written examination, others an interview. Both these methods present some practical difficulties when large numbers of candidates have to be dealt with. But if practical difficulties are not insuperable, a combination of these two methods would probably appear to be the best for selecting the right type of candidates.

After the candidates for admission have been carefully selected the next thing to do is to inculcate in them correct ideas regarding discipline and the necessity of hard and honest work. In this matter, however, one has frequently to face serious practical difficulties. Every Principal with a sufficiently long experience will prabably agree that of recent years there has been a progressive deterioration in the sense of discipline amongst the students who come for training in Technical Institutions. The whole idea seems to be to find out short cuts to passing examinations without the discipline of honest work. Cases of adoption of unfair means at the examination hall have bocome more frequent as also personal attacks on invigilators. Strikes are frequently engineered to evade or postpone examinations. A larger proportion of students are now found unable to attend the minimum percentage of lectures. Practical work is frequently scamped. Late or irregular attendance at lectures and

absence without leave have become more common. The proportion of students who really take their work seriously has declined.

From the above it will be apparent that there is something seriously wrong somewhere. As the students of the Technical Colleges are drawn from a large number of schools and colleges all over the country the present state of affairs is a matter of serious concern to all of them. As a matter of fact, greater attention to character building particularly at the school stage—appears to be clearly indicated. This is a matter which requires the immediate and urgent attention of all educationists and also guardians of students. It is only by a close co-operation between the teachers at school and the guardians at home that correct ideas regarding duty, discipline, respect for authority and honest work can be inculcated amongst the rising generation.

So far as the authorities are concerned, the time has probably come to take their stand firmly on certain clearly enunciated principles, if the situation is not to deteriorate any further. While the students' point of view should always be given sympathetic consideration and everything done to remove any legitimate grievance, at the same time they should be given clearly to understand that they must abide by the discipline of the College if they desire to continue as students and that strikes would not be countenanced under any circumstances. And these decisions would have to be strictly enforced. Recent happenings in at least one Province show that firm action by authority on the above lines is likely to have a salutary effect in the long run.

While insisting on the discipline of the College being maintained the Principal will, no doubt, always welcome constructive suggestion from the body of students and give effect to them wherever practicable. There is also no doubt that if the Principal had wider powers he would be in a better position to meet the demands of the students. There should also be close

co-operation between the students and the staff on the playing ground and on special occasions and functions. These generally help to create a better understanding between them.

Land, Buildings and Equipment

Most Technical Institutions which are now busy with development programmes have been experiencing some difficulty regarding one or more of the above items. In all these matters Government may be expected to give all the help they can. Acquisition of land through land acquisition procedure may be speeded up. Priorities and Permits for building materials may be given more freely and equipment required for Technical Institutions may be exempted from the payment of customs duty. There is no doubt that help in other matters will also be forthcoming provided they are represented to the appropriate authority.

Conclusion

A few of the more important problems facing the Technical Institutions in India have been discussed above. There are others which have had to be left out of consideration for want of time. As India is now entering a new phase of industrial progress it is hoped that the requirements of the Technical Institutions will get adequate recognition from the powers that be and from the indutrialists.

COMMERCIAL EDUCATION IN INDIA

K. C. De, M. A., Principal,
Government Commercial Institute, Calcutta.

IT is perhaps too late in the day to try to convince the authorities who are shaping the educational system in our country to-day of the folly of neglecting commercial education. The educational authorities and the public in India concentrated all their thought and energies on the organisation of higher education in arts and sciences. For some time there is noticed also an earnest effort for expanding facilities of technological education. But Commercial Education has been all along treated as a veritable Cinderella by the Education Departments of the Central and the Provincial Governments. Fortunately, the urgency of organising it in an efficient manner is being increasingly felt by those who are having a hand in the shaping of the scheme of education in this country. Here in this article, I propose to take a stock of the existing facilities, and the present system, of commercial education in India and to suggest certain lines of action for improvements.

1. *The exisiting facilities.* In the university towns, there are Universities, some of which having Commerce Faculty confer the Bachelor's and the Master's Degree in Commerce. In such cities are also to be found certain colleges imparting instructions in the I.Com. and B.Com. Courses of the universities. Similar colleges are also to be found in mofussil towns. In many towns and cities again there are institutes imparting instructions in various commerce subjects and a few of them offer facilities for instructions in higher professional courses like Registered Accountancy, Banking, Insurance, Secretarial Practice and Costs and Works Accounts.

The colleges imparting instructions for the university examinations in Commerce are controlled on the academic side by their respective universities. They have naturally to follow

certain standard courses and methods of training. But there exists a general complaint that commercial education, as it is imparted by our universities and the Colleges affiliated thereto, is much too academic and theoretical.

The Commercial Institutes which are not affiliated to any university but train up students in special commerce subjects and for higher professional courses function independently. Most of them go almost entirely without the supervision and control by any authority, though in a few Provinces, e.g., in Bengal, Government has set up an authority for the purpose of securing a fair degree of efficiency in the training imparted by them. Such an Authority sets the Courses, conducts examinations annually to which students of the affiliated institutions, as also the private candidates, are admitted, and awards certificates to those who come out successful. This scheme helps to secure a standard system of education and the Government Certificates can command the confidence of the employing authorities at the business firms and administrative offices. In such places, Government maintains Commercial Institutes controlled by a Board of Management and such institutions also impart instructions in specially devised Commerce Courses of a general character running for two years or so. At the end of the course, Final Examination is held and Diplomas in Commerce are awarded by the Government. These Institutes also run one-year's courses in special subjects like Book-keeping and Accounts (Junior and Advanced), Mercantile Law, Modern English, Shorthand and Type-writing, Banking, etc., and award Certificates to those who come out successful at the Special Examinations held annually in such subjects. These Institutes are authorised by the Government to affiliate private institutions, to impose certain conditions of affiliation, to set the courses for examinations and to conduct the examinations.

Some of these private and Government institutions also prepare students for Diplomas awarded by organised Bodies, both Indian and foreign. The following list—quite a formidable

one—gives one an idea as to the chaotic state of Commercial Education in this country. Here in India we have the following authorities:—

1. Government of India—conducting examinations in
   (*a*) Registered Accountancy and
   (*b*) All-India Diploma and Certificate Courses in Commerce.
2. The Indian Merchants' Chamber, awarding Diplomas in Accounting, Secretarial Practice, Banking, Insurance and Business Organisation.
3. Institutes of Certified Public Accountants.
4. The Corporation of Certified Secretaries.
5. The Incorporated Secretaries' Association, India.
9. The Faculty of Secretaries.
7. The Indian Institute of Bankers.
8. The Indian Institute of Works & Cost accounts.
9. Provincial Governments (Bombay, Madras, and West Bengal) awarding Diplomas for special Commerce Courses and Certificates for special subjects.

Indian Students also go in for the Diplomas of many Associated Bodies of London holding their own examinations in suitable centres in India; e. g.,

1. The Institute of Bankers, London.
2. The Chartered Insurance Institute, London.
3. The London Chamber of Commerce, awarding higher Diplomas in Accounting, Secretarial Practice, Banking, Insurance and Costing.
4. The institute of Book-keepers, London.

II. I will now draw attention to another aspect of commercial education as it is imparted in most of the private institutions, particularly those which are not affiliated to any univer-

sity. Most of them are run in uncongenial surroundings, in dark, dingy rooms and with little or no provision for healthy intellectual and physical recreations. Pleasant surroundings and recreations are, in my opinion, as important as the class works for the proper upbringing of young persons. A commerce student, if he is to do well in his career, should be physically smart and fit, mentally alert and disciplined and should have a well-developed sense of the beautiful and the good. Without these qualities, he is apt to make a bad Assistant, an inefficient Organiser, an unsympathetic Manager and a boori unmannerly citizen ever running after making money by all ugly methods that his anti-social instincts can devise. Development of worthy habits and qualities depends very much upon the atmosphere within the premises of the institutions where young persons receive their training. I would, therefore, go so far as to say that we should have fewer institutions run in healthy surroundings rather than a large number of institutions run in ugly places by gentlemen in a selfish and profit-seeking spirit.

III. *Equipments.* Most of our commercial institutions have inadequate accommodation; very few of them maintain good libraries, and fewer still care to maintain a Museum equipped with the apparatus and appliances used in modern business firms and samples of commercial documents, mineral products and goods which figure prominently in the export and import trade of the country. I have heard of institutions where commerce geography was taught without the help of maps! All these deficiencies explain why the education imparted by them fails to develop the practical knowledge of the commerce students and makes them little different from the Arts graduates.

IV. *Teaching Staff.* The teachers in the Commercial Colleges affiliated to the universities are undoubtedly men of good academic qualifications, but this cannot always be said of the staff of institutions which are not concerned with university education in Commerce. My own experience is the teachers in

commercial institutions are, as a class, ill paid for their services with the result that they scarcely do their work with devotion and zeal and have to over-work themselves for their livelihood by serving at too many places and doing too many things. A technically qualified man who has zeal and ability can scarcely be attracted to the teaching profession by the existing low scales of pay. If perchance one such man gets in, he takes the earliest opportunity of going out. Again, a teacher, if he is a mere teacher, soon loses touch with the realities of commercial and industrial life and tends to be much too bookish. Of course, full-time teachers will always have that tendency and it must be sought to be remedied by some suitable measures.

V. *Inadequate co-operation and support from the industrial and commercial firms.*

Another aspect of our commercial education which is causing me not a little worry is the absence of adequate support from the industrial and commercial firms of the country. Most of the Indian firms are as yet little conscious of the advantages of having traind men on their staffs or of getting their employees trained technically in the colleges for their particular occupations. Here in Calcutta I have two happy instances to refer to. (*a*) Messers Balmer Lawrie & Co. recruit probationers for their firms but their confirmation and subsequent. Promotion depend on their securing Government certificates in the subject or subjects which are relevant to the posts that they respectively hold. The costs of the training are borne by the Company themselves. (*b*) The Calcutta Improvement Trust also get their Steno-typists examined annually by the Government Commercial Institute at different speed tests. But these are two solitary instances. There are so many Indian and foreign firms in this vast city of Calcutta and yet it is difficult for me to attract more than half a dozen students to the class held for the Indian Bankers Institute Examinations. I have enquired of the students what exactly are the reasons for this apathy and in reply they have given me two reasons. One is that attendance at

lectures is not compulsory for them ; but the more serious one is that the managers of banks scarcely ever appreciate the value of the Diploma in Banking. Promotion to higher posts and to executive posts depends on influence and on the personal favouritism of the Directors and Managers. I do not accept the students' words as the whole truth, but the fact remains that our appeal to the managers of the banking concerns to encourage their employees to pass the Bankers' Institute Examinations has met with but poor response. All this I have stated at length just to convince the authorities who are interested in commercial education of the imperative necessity of securing the active co-operation of the various Chambers of Commerce.

I would now place before the readers certain lines of improvements which have suggested themselves to me.

1. With regard to the university education in Commerce I have not much to say. The chief defect, it seems to me, is inadequate practical training of the students and consequently a lack of practical bias in the university graduates in commerce. The authorities of our universities and of the colleges affiliated thereto should maintain a Commercial Museum frequent visits to which should be a *compulsory* part of the training of students. In big commercial cities like Calcutta and Bombay, there are Commercial Museums maintained either by the Government or the Municipal Corporation and Commerce students should be made to attend Museums frequently, and teachers should accompany them to give the necessary guidance and instructions so that fullest benefits may be extracted out of such visits. Further, the defects of theoretical training should be sought to be remedied by recruiting part-time teachers from the executive ranks of business firms to supplement the work done by the full-time teachers. Moreover, commercial classes should also be held in the evening so that the employees of business firms may go in for the university degrees. All this will make for a happy blending of theoretical and practical training.

2. For the sake of securing efficient staff, adequate equipments, proper accommodation, healthy surroundings and sufficiently high standards of examinations at the Commercial Institutes not affiliated to any university, I feel that every Province should maintain a Government Institute to which private institutions should be affiliated. It should be the model for the private institutions regarding the staff, pay of teachers, equipments and library facilities, etc. It should set the syllabi for the various subjects, hold annually examinations in such subjects and award certificates to successful candidates. It should have the necessary machinery for exercising requisite supervision over the affiliated institutions. Such an institution will prevent the growth of inefficient and ill equipped institutions in the country and maintain a fair standard of training.

Further, to ensure equality of the standards of commercial training all over the country, there should exist a Central Authority which should play the role that a University plays over the affiliated colleges. Such an Authority should introduce Diploma and Certificate Courses for Commercial education of a general character, should set the syllabi, conduct examinations and award the Diplomas and Certificates. It is gratifying to note that the Ministry of Education, Government of India, has already taken the right step in this direction. The All-India Board of Technical Studies in Commerce has set three courses—a three-years' Senior Diploma Course and a four-years' Advanced Diploma Course for Day scholars, and a three years' Certificate Course for the benefit of students who have to earn for their livelihood and can attend classes in the evening only. The two Diplomas are awarded not all at once to the candidates successful at the examinations but after completion of a practical training for a fixed period in some "*recognised firms.*

The Diploma Courses of the All-India Board will not, I am afraid, be able to gain popularity unless certain conditions be fulfilled. (1) In the first place, in order to secure the Senior

Diploma a student requires five years including one year of practical training, yet he will not enjoy the privileges and the status of a graduate in Commerce, though the latter has to work for four years only. (2) Secondly, certain difficulties shall have to be faced in getting the students attached to "recognised firms" for practical training. (i) The term "firm" will seriously limit the scope for training, because it will prevent the heads of institutions from having the students attached to the Government or semi-Government offices. (ii) The term "recognised" introduces an uncertainty as to which and what firms shall be recognised by the All-India Board. (iii) The heads of commercial firms and also of offices—assuming that offices too will be recognised for the purposes of practical training — will not take seriously, as my experiences in Calcutta have convinced me, the requests of the heads of institutions for training their students. (iv) They will hesitate all the more if the requests be made to take the students in as trainees before they have passed the Diploma Examination, which means the five-years period cannot in any way be lessened. (v) The question of paying any allowance to such trainees will further intensity the reluctance of the heads of offices and firms. (f) If the number of students be large, the difficulty of finding accommodation for all for practical training will be insuperable, unless the recognised offices and firms are also large in number. All these factors, I am afraid, will militate against the popularity of the Diploma Courses of the All-India Board, unless the Board succeeds in taking certain effective measures, some of which are suggested below*.

1. The universities should be required to permit the students of the Senior Diploma Course to sit for their B.Com. examinations after they secure the Diploma on completion of the practical training. If the local universities be pleased to accord this privilege, it will perhaps be easy to induce the London

*The Government of India have already recognised the Diploma as equivalent to Commerce Degree, and Advanced Diploma to Master's Degree in Commerce. Besides, the Ministry of Education has made arrangements with first grade commercial firms for practical training of students. Editor.

University also to extend the same to the holders of the All-India Diploma. This advantage, I am sure, will go some way to attract students to the Diploma Courses.

2. The Board should modify the existing rules regarding the practical training of the students. (*a*) The scope for such training should be widened by permitting them to seek accommodation not only in the industrial and commercial firms but also in the administrative offices. (*b*) The meaning of the term "recognised" should be made more explicit by laying down at least the types of offices and firms which will be recognised by the Board for purposes of practcial training. Particular caution should be taken in this respect, for ill chosen offices and firms will do little for the trainees, but by certifying that the training of the students attached to them has been satisfactory will only bring the All-India Diploma into disrepute. (*c*) The Government of India should, through the Ministry of Commerce and Industry, directly seek the co-operation of the Chambers of Commerce and the Banking concerns in the matter of offering scope for practical training of the Diploma students. (*d*) The practical training should follow and not precede the passing of the Examination so that less strain may be put on the instructors in the offices and firms and the students too may pick up quickly the technicalities of the particular occupation they individually choose for themselves. Moreover, as the heads of offices will get good work from the trainees they will not be unwilling to give some allowances during the training period. (*e*) Finally, the number of students admitted by an affiliated college should be limited according to the scope available for practical training in the particular centre where the college is situated and attempt should be made to make good the consequent financial loss by increasing the seats in the evening classes of the Certificate Courses.

3. With regard to the practical training of the students of the Day Courses, in the various Commercial Institutes, I

should suggest (*a*) that the Provincial Board of Commercial Studies and (*b*) the All-India Board should not grant affiliation to any Institute unless it undertakes to maintain a good Library as well as a Museum. The authorities of every institute should be encouraged to have a Co-operative Credit Society and a Store which should be run by students under the supervision and guidance by the teachers. These Societies will be effective instructors in the methods of keeping files and accounts; they will train the students in the art of business correspondence and in the methods of marketing. Every Institute should send out students on tours to places of industrial and commercial importance. Another factor that will benefit both the students and the full-time teachers is to maintain a mixed staff consisting of both full-time and part-time teachers, the latter being recruited from the executive ranks of business firms and professions. The nature of the questions set for the examinations also plays a part in imparting a practical bias to our students. It is why I consider it essential that *as far as practicable*, such persons should be appointed as paper-setters and examiners as possess the requisite academic and technical qualifications and are at the same time engaged in commercial and industrial pursuits or are on the executive ranks of business firms or directly concerned with the training of students for commercial examinations. The quality of the training imparted by commercial institutions must also depend considerably on the qualifications of teachers and on the scales of pay fixed for them.

4. There are certain higher professional courses for which separate organisations are necessary. In England there are Chartered and Incorporated Societies of experts for professional courses like Accountancy, Secretarial Practice, Banking, Costs and Works Accounts, Actuarial Practice and Insurance in all its forms. In India too, as I have stated elsewhere, there are some such Bodies, though few of them enjoy the prestige that their British counterparts do. The Registered Accountaucy Exami-

nations held by the Government of India has indeed acquired a good reputation. I would, therefore, suggest that initiative be taken by the Government of India to organise the existing private Bodies or Associations in a more effective manner. Actuarial Practice is an important branch of commercial education and the demand for Actuaries is very high and will remain so for a generation or more. Yet there are practically no facilities available in India for training in this useful subject. I therefore, feel that suitable arrangements should be made at an early date in the Government Institutes or colleges for imparting instructions in Actuarial Practice.

Here in this article I have set out some of the problems of commercial education in our country and I have made certain suggestions — though I claim no originality for them — for consideration by the Association of Principals of Technical Institutions (India).

PROBLEMS OF TECHNICAL INSTITUTIONS*



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TECHNICAL institutions may be divided into two main groups. There are those where technical knowledge is imparted to produce technicians to man the various industrial enterprises, to produce skilled labour to look after electrical and mechanical plant, to produce staff for drawing offices of engineering firms of all types and departments of our Governments. In fact the purpose of such institutions is to train personnel in every branch of engineering and technology so that there is no likelihood of a shut down of any plant, electrical, mechanical, or industrial for want of adequate staff and so that the ever expanding economy of the country in the realm of industrialisation and expansion is never starved of the essential requirements of skilled labour and technicians. This particular need can be supplied mainly by polytechnics and similar training centres for technicians which must be widely spread over the country.

The other type of technical institutions comprise of Engineering Colleges and Universities, Intitutes of Technology, Training Centres for Specialised courses and Research stations. Maintenance, expansion, continued improvement, replacement and planning of the essential services require a continuous flow of technical staff like engineers, designers, research workers, overseers, supervisors, etc. and this has to be provided by institutions of this kind. These must be scattered over the country in generous measure though naturally the number of polytechnics will have to be much larger than these institutes.

* Paper read at the Nagpur Conference on the 4th April 1949.

It will be seen that the training of technicians, engineers and supervising and planning staff must go hand in hand and therefore both types of institutions must flourish together and, so to say, supplement each other. It is also essential that, in order that they should be able to discharge their functions adequately and efficiently, these institutions must maintain a high but uniform standard of instruction, health and discipline. This is possible only if instruction in all institutions follow the same course and standard. The need for uniform syllabuses in all branches of engineering and technology and adequate staff to impart instruction therein in an efficient manner cannot be over-emphasised.

The first and foremost problem which must face all technical institutions is the medium of instruction. A decision must be taken in regard to this important question before other very essential but necessary matters can be discussed. It has been given out that the medium of instruction should be the local language of the people. To learn in a tongue, which is not his own and therefore which must be regarded as foreign to him, must cramp the style and ability of any student when studying particular subjects. For he has first to learn the foreign language before he can make headway in the particular subject which he wishes to study or in which he desires to specialise and to do research. The medium of instruction should therefore be such that there is adequate staff available to teach in that medium, there is sufficient amount of literature produced in the medium to use as text books or supplementary reading and there are reasonable amounts of readily available scientific journals and books of reference. It should not be necessary for students to learn foreign languages for this purpose in the earlier stages of their studies.

In India, the prime necessity at the present stage is to produce scientifically trained men and if the medium of instruction is now switched on to the local or provincial languages, there is a possibility of considerable confusion in instruction which may

vary with locality, may employ a set of terms unacceptable to others, may further prove harmful to the students who migrate from a particular locality and may retard progress due to the fact that it will not be possible, and certainly not profitable, to produce adequate literature in technical subjects in the provincial languages. The production of even essential literature will take a very long time and will have to be subsidised heavily by the Central and Provincial Governments. The medium of instruction in Osmania University was switched on to Urdu and, to boost it up, the University authorities obtained permission to translate certain text-books from English. This work of translation and reproduction had to be spread over a period of a generation or more and still we cannot say that the texts available supply even the meagre needs of the under-graduates in spite of the fact that this work, I learn, was very heavily subsidised by the then Government. I may here refer to one item of instructions to examiners in scientific and technical subjects which speaks for itself. These examiners used to be (and perhaps even now are) requested to send English translation of the papers set by them in Urdu and I leave you to draw your own conclusion what the authorities had in mind in issuing this instruction. The reaction of the examiner was one of amusement, if not, one of dismay. The authorities perhaps thought the examiner was not capable of setting the paper in Urdu (or their Urdu) and wanted to be sure that he meant what was implied by the English equivalent employed by him. The introduction of Urdu as medium of instruction at the Osmania Univerity was hailed as a step of great national importance. It had the backing of very considerable financial support and enthusiasm of the authorities in as much as they were doing some thing of a pioneering nature. And yet this reform started in an atmosphere which was certainly not entirely free from suspicion. What was this suspicion due to ? Was it that there were not enough and variegated books on the subjects of instruction, specially in the domain of technical training ? Or was it that the teacher had some doubt that

their students would not be able to augment their knowledge else where ? Or was it that the translators were doubtful whether professors and lecturers belonging to other institutions were not capable of knowing the type of Urdu which the Osmania University had adopted as the medium of instruction ? These and similar questions loom large in the minds of teachers at technical centres whether a change in the medium of instruction from English to a local or provincial language in the realm the scientific and technical training or studies is a step in the right dirction.

This problem therefore requires careful consideration and the views of the Principals of technical institution should command considerable respect and great deal of force. Most of these have been engaged in teaching some branch of technical knowledge before coming to their present position of guiding the course of education and piloting their institutions into efficient training centres. In coming to a definite conclusion, the Principals will have to pay considerable regard to the fact whether it is possible in a short time to make available a glossary of terms which could be understood by those concerned, whether enough monetary help would be forthcoming from the scientific and technical staff available for the production, translation or recasting of available literature in the English (or some other foreign) language into the various vernaculars, whether the country would be prepared to spend large sums of money for printing all of this literature, whether the country possesses printing presses and the technical staff for producing these works in sufficient quantities in all the vernaculars, whether all this and more can be done within a short period of time before the introduction of local language as medium of instruction in any station of technical and scientific training. To me it appears that the time is not yet ripe for this change and therefore so far as possible, English should remain the medium of instruction in all centres of University standard. This would assure a common medium and would lead to uniform and homogeneous courses of

instruction. If the staff in the various institutions are also recruited on a uniform policy, there is no reason why the same courses and syllabuses should not be adopted all over the country. I would go a step further and say that there should be periodical interchange of staff among the various institutions. This will result in mutual benefit to staff, students and institution concerned. When a member of a particular institution has to go over to another to do teaching of his subject, it will become imperative for him to keep himself posted with the latest development of his subject, and to see that he is not behind any other teacher in knowledge. He has not only his own prestige to keep up but he cannot let down his parent institution. The inefficient and lazy teachers will thus be thrown to the back ground and will tend to be eliminated. The efficiency of the teaching profession will rise and teachers will find their true metiere and will be in a position to claim the previleges which seem, at present, to be the right of other professions only.

I have above made a plea that the medium of instruction should for sometime to come remain English in the domain of University education. This would save us the production of necessary literature, scientific journals, etc. in the interval available, planning for the switch-over, if necessary should be carried on side by side with instruction through the medium of the English language. For the present it is essential that there should be similar instruction in practically all institutions which should work to the same standards and syllabuses and consequently produce graduates homogeneous in quality. This is possible only if the medium of instruction is through a language which is known to scientific workers in different fields and provides facilities of a large literature on the subjects concerned and also of very considerable journals of all kinds in the realm of science, art, industry and technology. Introduction of a new medium or mediums would tend to retard the production of scientific and technical personnel at present and this retardation is certainly not in the interest of the country. It would therefore appear

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feasible to stick to English as the medium of instruction and switch-over, if need be, after a certain period of time and even then gradually, to some medium of instruction common all over India.

This is the first problem on which this august association of principals has to record their emphatic opinion. Taking for granted that English will remain for the time being the common medium of instruction in technical knowledge, the second problem that appears to me to be of considerable importance is to establish ways and means of introducing uniform standards and syllabuses at the various centres. A lead has been given in this direction by the Government of India. The Council of Technical Education is producing syllabuses in all branches of engineering and technology for guide or adoption by all concerned. The reform on this score must come from within and the institutions should not only adopt these syllabuses and standards but should point out a way for improving them and making them flexible for adoption in respect of the growing needs of our youth and country.

I have also said that the health and discipline of students should be the concern of the institution and a uniform policy should be adopted to improve and maintain these. Games, specilly team games, should be compulsory and students should be persuaded to take part in them for their own sake. If necessary, forceful persuasion may be employed. For example, it may be made compulsory that certain minimum attendance on the field would be necessary for any student to sit for his final examination. But unless the student feels that games and health are necessary for his well being and his efficiency as an officer and must therefore be played as a matter of course, the object of the authorities cannot be gained. It should be the aim of those concerned to provide facilities for games and make them attractive enough for students to join in these of their own free will and that forceful persuasion should be resorted to only as an extreme measure. A member of staff exclusively in charge of sports and

games should therefore be added to the other staff and it should be his business to inculcate enthusiasm among the students for games etc. for their own sake. The matter can be discussed and views formulated concerning this item like any other curricula of the course.

The health of the students also requires careful catering on the part of the authorities for students entrusted to their care. In catering, a uniform standard may not appear feasible but it may be necessary to provide the requisite number of calories in attractive and clean surroundings. This is possible only if the authorities take a hand in it. Students' representatives should be associated with the management but it would appear a waste of time of these students. This time could better be utilised by students by indulging in studies and humanities or in practice of their hobbies.

The question of inculcating in students a sense of responsibility and discipline is to my mind one of paramount importance. It is not a truism but a solid fact that those who cannot obey will not be able to com nand. Students' habit will have to be studied to find ways and means to enforce discipline so that the students conform to it not through a sense of fear but through a sense of duty. If possible, delinquencies should be punished by students themselves, through what may be called Students' Courts wherever it is possible to do so. I have made this suggestion in the complete belief that those who take up a professional career are the enthusiastic youth who will soon be be coming responsible officers and so should be treated as such from the beginning of their students' career. If they see that something derogatory to their honour or dignity or that of their class or their institution has been committed by one of them, they should be capable of taking action to set it right and see that a similar offence is not committed again by suiting the punishment to fit the crime or offence. This sense of doing the right thing by their fellow students will inculcate in time a feeling of correct

attitude and righteousness which will augur well for our officers and our country. It will tend to raise their morale, it will help them to live a life of truth and justice so that they can be considered fit enough to take their places as judges and it will finally help them to build up their character to do to others as they would wish others to do towards them, to develop in them a sense of fair play and camaraderie, to extend a helping hand to their fellowmen in time of stress and need and courtesy to all and generally and always to behave in such a manner as to bring to the fore their qualities of head and heart which will shed credit on their upbringing, honour on their almamater, and glory on their cause and country.

In technical institutions in India, "humanities" are as a general rule not included in their curricula and syllabuses. The reason may not be far to seek. It is possible that perhaps adequate staff for the purpose is not available or more likely that the daily programme is so over-crowded that this subject of humanities cannot even be squeezed in here or there in their course. It would be a pity if it is not possible to do so but, given good will and some staff, it should not be difficult to remedy this draw back in our syllabuses. I make the plea that "humanities" (which may comprise of subjects like General Ecnomics, Sociology,) should be included in the curricula of engineering Colleges and also not only should facilities be provided for some hobbies (usually concerning engineering, art, sculpture, architecture, model making, fishing, etc.) but students should also be encouraged to indulge in one or other of their own choice. This will encourage self confidence in students who will not find their spare time hanging heavy on their hands and who will have something to fall back upon when employed in out of the way places.

Mr. President, Sir, I have placed before this august assembly of Principals my views concerning a few problems which technical institutions all over India have to face

The extravagant process of deputing scholars overseas for so called "higher" studies or training is unlikely to yield expected results because the academic foundation of the selected personnel in numerous cases, has not been of the proper type. The President of the famous Massachusetts Institute of Technology once said that the secret of M.I.T.'s success lay in giving a *mathematical interpretation to natural phenomena* and that Indian students lacked not only a usable grounding in mathematics but also technical acumen. In M.I.T's ranking of students from various countries India came last but one. We do require a reorientation in our approach to the various problems in the field of technological education. *Prior and preliminary* to these higher studies, certain factors have to be taken into account, if the results are to be commensurate with the time, money, and energy spent. And the cost factor becomes particularly important with education in the States. It may not be out of place to point out here that the visions created by American superlative showmanship regarding their institutions have created a vertible mania in our country for things American. With all my admiration for most American technological institutions I am inclined to feel that we cannot afford this grandeur and further that, it may not be necessary. England, Germany and France have proud achievements *at less cost*. The best from each country should be picked and shaped to suit our needs and resources. It is gratifying to note that the modified overseas training scheme of the Govt. of India has taken this into account. Since this scheme is to be scaled down gradually, our universities should, right from now, take vigorous steps in the right direction and produce technologists who are technologists in the true sense of the term.

Secondly the various national research laboratories cannot function efficiently if the personnel provided to them is not of the proper calibre. The cry for more and more of ready-made equipment has become disproportionate to the actual necessities. Much more can be accomplished with what we have. Our attitude has to change and we must begin to appreciate that the development of suitable experimental equipment is part of a research compaign, of course within reasonable limits. We have to cultivate assiduously creative ingenuity both in us, the teachers and in the students.

For education to be creative the first requiste is an enthusiasm for the subject. This is so well known that amplification is unnecessary. But it must be pointed out that given students who have been selected because of their natural aptitude for a particular branch of study, and given that the syllabus has been drawn up wisely, the growth of consuming interest among the students in the subject depends upon two factors viz. (1) an enthusiastic teacher who can inspire the students and (2) the teaching technique employed.

Plant visits, refresher courses, extension lectures and active part in current researches are essential for maintaining a proper atmosphere in any teaching institution. Besides this, the historical development of a particular technology should be used. This will powerfully bring in the much needed human element. A wholesome appreciation and an undistorted view of the subject cannot be had without this treatment.

The second fundamental of technological education is the scientific attitude. The rate of progress in all branches of technology is so rapid that it has become impossible to assimilate all the details. But is it at all *necessary* to master all these details and instruct the students accordingly? The details are just information, useful no doubt. But is not true education more than a catalogue of useful facts? *It is infinitely more important to illustrate to the student the process of finding out and developtng a new process or technique.* Prof. Karl Pearson says, "I have been engaged for sixteen years in helping to train engineers and my old pupils who are now coming to the front in life are not those who stuck to facts and formulae and sought only for what they thought would be useful to them in their

profession'. On the contrary, the lads who paid *attention to method*, who thought *more of proofs than of formulae*, who accepted even the specialized branches of their training as a *means of developing* habits of observation rather than of collecting "usual facts", *these* lads have developed into men who are succeeding in life. And the reason for this seems to me, when considering their individual cases, to be, that they could adapt themselves to an environment more or less different from that of the existing profession, they could go beyond its processes, its formulae and its facts and *develop new ones*. Their knowledge of method and their powers of observation enabled them to supply new needs,to answer to the call when there was a demand, not for old knowledge but for trained brains..... The only sort of technical education the nation ought to trouble about is teaching people to see and think... What we want are trained brains, scouts in all fields and not a knowledge of facts and processes crammed into a wider range of untrained minds". "It comes to this", says Prof. Arthur Thompson, "that on the whole, the deeper and the more difficult studies, which stretch our brains most, are of much more value, even technically, than what are called useful facts".

It is well recognised by people who have made worthwhile contributions to science and technology that the fountain-head of all technological progress lies in a perfect understanding of the ways of the so called 'pure' sciences. Such a purely commercial organisation as the International General Electric Company has realised, and proved this beyond all doubt. The Director of Research of this organisation selects about twenty graduates every year. During the first year after the selection, they freely roam about the company's research laboratories taking and discussing with the researchers there. Frequent "Quizz" classes are conducted where they pull each other's ideas thread-bare. In the second year they are assigned some problem for research, usually on a topic totally different from their graduate studies—a glass technologist gets a problem on metallurgy and vice versa.

This educational experiment has been highly successful. It clearly shows that since all the technologies are based on the four fundamental sciences of physics, chemistry and mathematics, creative education should be broad based upon these fundamental sciences. It is in the teaching of these vigorous sciences that one can hope to develop the scientific attitude in the student. Technologists with an alert scientific attitude see "problems" in ordinary manufacturing processes and techniques and cerebrate over them. When this cerebration reaches a certain potential a new idea of an improvement results. This is the basis of technological progress and this is what our country badly needs.

As for the teaching technique, the following three factors deserve emphasis. (i) The quizz or discussion classes, (ii) Seminar or group research for junior students and (iii) the case method.

The "quizz" or discussion class may not have more than 10 or 15 students. An informal atmosphere is maintained. Some topic is thrown for discussion, the teacher now and then guiding the arguments. Books and periodicals are freely used during the discussion. The topics chosen may also be in the form of review questions.

Seminar or group resarch may be done by assigning topics to batches of 3 or 4 students. Here research is just research viz. self-study, critical thinking and writing the report in co-operation with the batch mates. Time allowed for each report may be 15 days to a month depending upon the topic chosen. Topics need not be always "technical"—they may also be on organization or administration.

The case method is similar to the lawyer's method. Written criticism on the design of a particular machine, arrangement of a particular plant are typical examples of this method of study. The students thus verify whether the principles they have learnt are correct and learn the importance of economics and common sense in organizing an industry.

Collection of reliable data, arrangement of the same, critical analysis and final synthesis in the form of a written report—the scientific method in short can be better instilled by the above techniques, when supplemented by a rather reduced number of the usual lectures.

"In mental training also the decisive changes take place outside consciousness. The test of any system of coaching is not whether it turns out students capable of doing certain tricks, like performing dogs. Such a method is futile and fundamentally degrading. It merely enables people to pass examinations in subjects which they do not understand and to qualify for posts in which they will be unhappy and inefficient. The real test of any teaching method lies far deeper. With the correct approach, the student finds his whole feeling about the subject changing. He begins to uderstand what the subject is about, he feels confident that he can master it, he begins to take pleasure in it and to think about it outside working hours. Only when such an attitude has been created does the mind really *grasp* the subject".

The ideas presented here are not new in the strict sense. Only in our country we are not practising this broad and scientific approach towards technological education. Not much of a financial outlay is required in re-orienting ourselves thus and it is sincerely hoped that we do so at an early date.

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(69)

Leather Tanning and Allied Industries

Dr. N. N. GODBOLE, M. A., B. Sc., Ph.D. (Berlin)

Leather Tanning is one of our ancient industries in India. In the total foreign trade of India, the export of hides and skins occupies an important place and is one of the main items of export. The important items of main exports are raw cotton, hides and skins, oils and oil seeds. The leather tanning industry comprises of two important chemical processes; (1) the tanning of hides and skin into leather and (2) the finishing of leather. The converting of leather into leather goods is a process not chemical in nature but is a mechanical industry. This industry of tanning, therefore, offers a very wide scope for development and as will be seen from the figures that follow that this industry has a vast field for development. If properly planned and developed, this will give employment to a very large number of Industrial graduates and what is more will help India in bringing money into the country to increase our purchasing power. Just as in our present campaign of grow more food, we are helping our agriculture, so also by tanning leather, finishing it and exporting our leather goods, we shall increase the productive capacity of the country several fold. Therefore, it is worth while examining the present position of this industry in India.

Along with leather tanning, there are several other industries which are helpful to leather tanning and are subsidiary industries which also need expansion and proper planning. If this is done, there will be so many new outlets for employment to our youngmen who will not only add to the productive capacity of the country but will also absorb our idle labour which is waiting for opportunities of getting new outlets of work. Being primarily an agricultural country, our agriculturists are not free all the year round. During certain seasons and periods of the year, they have got to be on their fields on active service,

during the periods of ploughing, sowing, harvesting etc. At other times they are quite free and such labour, we call idle labour. We have therefore to provide work for 70% of our population during such periods and during the hours when they are free.

Some allied industries which are closely connected with Leather Tanning offer great opportunities for employing such labour. Here is a list of some of these allied industries (*a*) manufacture of glue and gelatine (*b*) bone charcoal (*c*) bone fat (*d*) super phosphate and blood manure (*e*) tanning extracts, (*f*) manufacture of catguts (*g*) taxidermy (*h*) curing of bristles etc. Besides these, the manufacture of lime, sodium sulphide, sodium and potassium dischromates, chrome alum and soft soaps, are so essential for the development of leather tanning.

The conversion of leather into leather articles such as, shoes, boots, belts, purses, harnesses, portmanteaus, leather cases leather bags etc. are all industries which can be taken up by our labour during its idle periods on a cottage industry basis. It will be necessary to introduce adequate hand worked machinery to facilitate the manufacture of leather goods, the introduction of sewing machines like Singer's sewing machines used in tailoring will also facilitate production on a modern scale. Japan has introduced such machines with the result that production becomes large and competitive and the articles manufactured have a good finish and an attractive getup, which is such a great necessity these days. Such machines are fitted up in shop verandahs in Japan.

Starting with leather tanning proper, there are four methods of tanning which are of great importance.

The industry of tawing may be taken first. In this the hair of the animal is to be preserved. Skins are treated with alum, salt, wheat-flour, egg albumim, oils, and the like. The art of tawing deer and tiger skins and the like in India is an ancient

one. In fact for Sanyasis, such leather made out of deer skins is even considered scared. To the old methods of tawing, tanning by the chrome process can also be added. This has been tried by the author and the process has given very good results.

The other methods of tanning where the hair is to be removed include our centuries old bark tanning, oil tanning modern chrome tanning and osmotic tanning. So far as (vegetable) bark tanning or oil tanning are concerned, it must be said to our credit that India has been very much ahead of other countries. In oil tanning also, we are quite progressive Articles made from camel skins and ass skins are well known in the Punjab, U.P., N.W.F.P. & Sind; bottles and other artistic wares such as electrical shades, flowers vases are made from camel skins and are sold in the market at fancy prices and enjoy a good reputation.

The use of lime, arsenic sulphide, sodium sulphide for unhairing is very well known. At Didhwana, near Sambhar lake, where sodium sulphate is manufactured, it is interesting to see how hides are immersed into the sulphate water, as in that lakethe sulphate is being reduced to sulphide by bacterial reaction. Even in Sambhar lake area, the presence of sodium sulphide from sodium sulphate can easily be shown. In the unhairing operation, therefore our old knowledge has got to be systematised for scientific work. So far as tanning is concerned, we have in India a large and varied supply of barks, roots, leaves and fruits which are rich in tanning and which are being used for several centuries.

Acacia, (Babool) Tarwad, (casria suriculate) Myrabolans etc. are all being used all over India for tanning. We have still a large number of barks which are not examined for their tanning contents. We need substitutes for Sumac, African Wattle bark etc. and research work has got to be done for these. The one industry which needs attention is the manufacture of tanning extracts. At pressent, the tanner in India are using the vegetable barks etc., very uneconomically. We are exporting a large

quantity of our Myrabolans, barks etc., to foreign countries. If instead of exporting these in the raw condition as we do now, we export the extracts we shall not only save in the cost of transport, but we shall develop a new industry in India, in the form of manufacture of extracts. This will add to our productive capacity and also to our economic prosperity. The use of the extracts in leather tanning both in India and outside will prevent waste and rationalize the working of the industry.

Apart from liming and tanning, the process of finishing leather is a very important industry. In India we are very well conversant with liming and tanning operations but due to the backwardness and illiteracy of our so called depressed classes and due to the lack of proper scientific education (harijans), this process of finishing is not correctly known. In this process, the tanned leather is taken, dyed, staked and glazed and finished by suitable machines. This one operation enhances the value of the leather and adds appreciably to its market price.

Chrome tanning by the single and double bath processes has been introduced in India and is being worked successfully at various important centres such as Madras, Bombay, Agra, Kanpur and Calcutta. During the last World War, India has practically tanned over 90% of all the available supply of hides and skins in the country, both by the bark and chrome processes. This is an achievement of which we should be rightly proud.

For certain types of leather, it is convenient to adopt a mixed method of bark and chrome tanning so as to get properties for the leather midway between the two. Bark tanned leather is heavy whereas Chrome tanned leather is comparatively lighter in weight but is more durable than the former.

Five years ago, the cattle population of India was about 30 crores. It is difficult to say how much the population would

amount to, today, after the indiscriminate butchery that has taken place during the war years. India produces annually :—

20	(millions)	of cow hides
5.7	,,	of bufallow hides
27.5	,,	of goat skins
17.0	,,	of sheep skins

The pre-war value of these un-tanned hides and skins was about 12 crores. Today it must be about Rs. 20 crores. If this is tanned and converted into leather, it would be worth about Rs. 40 crores.

In the year 1829, India exported only Rs. 80,000 worth of hides and skins. In the year 1940-41 (during the war), the export amounted to Rs. 4 crores worth of hides and skin and 7.5 crores worth of tanned leather (but not finished). If, therefore, instead of exporting raw hides, we could export leather, it will be worth about 40 crores and if it is finished it will be worth about Rs. 50 to 60 crores and if further the leather articles are exported, this figure may go up to 120 crores, which is about 40% of the total export trade of India, today.

The list of Chemicals required in leather tanning is the following:— Sodium sulphide, natural and synthetic bates and puers sulphonated oils, pigments, finishes, cellulose lacquers, sodium and potassium dichromates, chrome alum and to a small extent organic dyes for leather finishing. The establishment of these industries will also be of great help in adding to the wealth of country. The manufacture of synthetic tannins will also follow later. We must first develope our natural tannins.

The world production of hides and skins is between 76 to 102 millions of which the share of India is 25 millions that is about 25 to 30% of the world production.

The total number of tanneries, in India of a fairly large size is about 35 distributed as follows U. P. 17; Madras 8; Bengal 3; Punjab 5; Bombay 2; U. P. has the largest number

of factories. The first Government factory in India was started in Kanpur for making harnesses and saddlery in India for the Indian army and this factory today is one of the biggest in the country and also in the world. In 1941, during the World War II, one Kanpur only supplied 4 million pairs of boots for the armies of the allies in the Eastern front whereas before 1940, not even fifty thousand pair of boots could be supplied. This supply was a great achievement.

In India, there are in all 14 factories producing leather shoes. During the five years of the war, (excepting goat skins) all other hides and skins were tanned in the country. In the year 1943, over eleven lakhs of hides were tanned by the chrome process and Madras alone exported over six crores rupees worth of chrome-tanned hides,

Allied Industries

Bones are an important raw material for the manufacture of (*a*) gelatine, (*b*) bone charcoal, (*c*) bone grease and (*d*) Superphosphates. Bones are also used for making buttons to a small extent.

Very few of these articles are being made in India today. We are crushing bones in a few factories and are exporting them in the form of powder and chips to be used as manures. Before 1940-41 India exported 52,000 tons of bones worth Rs. 32 lakhs of rupees.

Glue and Gelatine

In 1937-38. India imported glue worth Rs. 5 lakhs and gelatine worth Rs. half a lakh only. During the last war years, attempts have been made to manufacture glue in India at Madras, Kanpur, Agra and Delhi. Glue is being used largely for the match industry, pencil industry, book-binding etc. Glue was mostly imported from England, Germany and Italy. Gelatine is largely used for photographic plates and photographic paper and also for edible purposes. High class gelatine fetches as much as Rs. 15/- per lb. No gelatine is being made in India today.

Bone charcoal was largely used for decolourising sugar and is also used in chemical industries. Bone grease is used as a good lubricant and good qualities of this are used for lubricating clocks, sewing machines and the like.

Superphosphates from bones are very badly required for Indian agriculture to supply the calcium and the phosphorous required by the soil. The world production of super-phosphates is estimated to be one and a half crores of tons. India's import share of this article is only 7,500 tons and India manufactures in the country about 4,000 tons only. The export of bones deserves to be prohibited by law.

Bristles of different colours and of different sizes are used largely by the brush industry. The world supply of bristles comes from India and China only. During the war days, the price of one lb. of these bristles for making different types of brushes went up to Rs. 40/- per lb. In the year of 1942-43, 152 tons of bristles were used in the world for brush manufacture and India alone produced during the second war, brushes worth Rs. 56 lakhs (in 1942) whereas pre-war, India produced in 1939, brushes hardly worth one and a half lakh of rupees.

The annual export of goat's hair from India is about 7 million lbs. and during the war, nearly 12 million lbs. were exported and calculated an average price of As.-/4/- per lb., this item was worth Rs. 30 lakhs.

The industry of tawing (keeping the hair on and then curing it) is an old industry. Using deer skins and tiger skins as "Asans" (आसन) which considered sacred for sadhus who were advocates of Ahimsa.

Taxidermy which is an advanced process of tawing and preserving wild animals and other game is a big subject and needs scientific education and training. There is hardly any educational institute in India to give this training. In the whole of India, there are hardly three or four concerns engaged in taxidermy.

The manufacture of cat-guts from intestines of goats, sheep calf and other animals is a very lucrative industry. Raw material (intestines) worth a few annas is converted into catguts (for tennis and badminton rackets) worth as many rupees and small catgut threads used for stiching wounds in surgical operations are very costly. Intestines are largely exported from India to Europe and are used in the manufacture of sausages in England and wrust in Germany. As a matter of fact, a few villages in Germany are engaged entirely in the catgut and sausages industry. A few established European export firms in India have made crores of rupees worth of business only in this one item of intestines during the last 25 years.

On the wool which is exported the woolen industry is dependent. During the washing of the wool, wool-fat (adeps lanae) is manufactured which is a valuable chemical (base) for the manufacture of cold creams and other soothing preparations.

The blood and other fleshy material from slaughter houses is mixed with ammonium salts and forms an excellent and costly manure for tea estates.

The other subsidiary industries which are closely associated with the development of the tanning industries are the vegetable plants from which tannins are extracted for use in tanning. Of these tannins products, India has a large variety. As explained already, we are exporting myrabolans and other tannin yielding substances to a very large extent. The industry of preparing tannin extracts has a great scope both for internal use and export. Europe and America are now busy manufacturing synthetic tannins like synthetic rubbers or synthetic plastics. We, in India, have a big un-explored world of natural tannins which are a source of potential wealth to our country. The forest department of India can take-up this question and take to afforestation to increase the yield of these tannins. We are importing wattlebark from East Africa, but it will not be difficult

for us to take up plantations of this in Indian forests which have a rich variety of climates. Some efforts are being made in this direction.

Leather tanning industry due to the limitation imposed on it by our cast system, has been confined to the Harijans only as a caste and as a class. This can be now nationalised and can be elevated to the status of our University education instead of being confined to a class which did not receive proper support, encouragement or training. In Europe, England and America, leather tanning forms the subject for a doctor's degree and there is no reason why India should lay behind. Things are already on the move in this direction and before long, leather tanning will reach the high level of training it deserves.

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produce a pound of coal or iron. But the technical education in that country was so highly developed that its technical experts produced high quality goods with the result that in the commercial world today it was at the top. This was possible only due to the technical education and skill. Switzerland provided an example to ponder over and if possible to emulate. Whatever be the potential wealth of the country the real wealth consisted in its scientific and technical manpower.

Unfortunately for India, Sir J. C, Ghosh continued, there was a huge reservoir of unemployed and under-employed technical ability. The Government must utilise this ability for the true scientific development of the country. They were a great national asset and should not go un-noticed. India within the next five years would need 35,000 technical experts of higher grade, and 40,000 experts of the lower grade But if we looked to the present state of affairs, it presented a gloomy picture. India had at the present moment 10 post-graduate technical institutions, 21 intitutions for degree courses and 35 for deploma courses. All these institutions could produce only 2,700 technical men in the year 1946. Time was ripe when the Government should provide more and better facilities for technical education. Till 1955, India must produce at least 8,000 technical experts of various grades every year.

Dr. Ghosh then recalled an interesting interview that he had with the ex-President of the U. S. A., Dr. Herbert Hoover told him that American Universities every year threw an avalanche of highly qualified technical men and these people are either create new industries or are absorbed by exisiting Industries without any difficulty. An educational system which aimed at making an individual technically expert and skilled was not only doing a service to the individual alone but the entire nation.

"Our anxiety is that unless there is a quick progress there might not be any orderly progress at all. Sometimes speed was essential", he added.

A time had come when there must be a thorough heart-searching by all of us. Were we equal to the foreign countries in organisational capacity, technical skill and other things? If not when were we going to be their equal? It is in the context of this feat that we should develop our schemes of technical education.

During his recent tour of the United Kingdom, the speaker had noticed that a part from production the various industrial establishments had undertaken simultaneously the training of large numbers of technicians whom sometimes they paid the same standards of wages as regular employees. In India an apprentice had to provide for his own maintenance without any financial assistance from the industrialists.

It was to remedy this that the Government of India had now prepared a Bill which would government powers to make provision for apprentice training facilities as part of the management of industrial concerns.

The Director-General of Industries also referred to the fact that although the major iron and steel industry had been in existence for quite a long time in that industry had not thrown up men who would prepare projects for the use of Government in the establishment of new units of steel and works in the country. They had had to requisition the aid of foreign experts for that purpose.

Dr. Ghosh then referred to the various Governmental steps aimed at developing the country. He said that the Government had established the Cottage Industries Board and technical and such industries should get in touch with it as well as with the rural areas. There was no reason why India should not be successful in cottage Industries when a heavily industrialised country like Japan depended more on its cottage industries than machine produced goods.

ASSOCIATION OF PRINCIPALS OF TECHNICAL INSTITUTIONS (INDIA)

REPORT.

The Council have pleasure in submitting a report on their work during the year 1948-49.

1. **Council Meetings**

During the year there were SIX meetings of the Council and its Sub-committees, as follows :—

Executive Council.

At Roorkee.	14th April, 1949.
At Delhi.	12th Nov. 1948.

Sub-committees.

On Professional Code.	12 Nov. 1948.
On Text Book Committee.	12th Nov. 1948.
On Consulting Engineers.	18th & 19th March, 1949.

All the members of the Executive Council were present at the meetings at Roorkee and Delhi, with the exception of Dr. K. Venkataraman, and Mr. E.K. Ramaswami, who sent their apologies.

2. **Membership.**

The Association has on its rolls 80 members, consisting of 1 honorary member; 10 life members, 77 ordinary members and 2 associated members.

(a) The following Principals have been enrolled as new members during the year 1948-49.

Ordinary Members.

1. Sri E.V. Ganpati Iyer, Director, Indian Institute of Science, Bangalore.
2. Sri N.N. Chakarvarti, Principal, Thomason College of Engineering, Roorkee.
3. Dr. D.R. Dhingra, Principal, H.B. Technological Institute, Kanpur.
4. Dr. J.W. Whitakar, Principal, Indian School of Mines & Applied Geology, Dhanbad.

5. Mr. F.M.P. Arbuthnot, Principal, Engineering College, Muslim University, Aligarh.
6. Dr. S.R. Sen Gupta, Principal, Bengal Engineering College, Howrah.
7. Sri S.B. Junnarkar, Principal, Birla Vishwakarma Mahavidayalaya, Anand.
8. Sri S.C. Roy, Director, Indian Institute of Sugar Technology, Kanpur.
9. Dr. M.A. Govinda Rau, Director, Alagappa Chettiar College of Technology, Madras.
10. Sri J.P. Das, Principal, School of Engineering, Bangalore.
11. Sri R.N. Chakarvarti, Principal, Govt. School of Art, Calcutta.
12. Sri K.K. Mukerji, Principal, Maharaja's School of Arts & Crafts, Jaipur.
13. Sri B.S. Audholia, Principal, G.S. College of Commerce & Economics, Jubbalpore.
14. Sri T.N. Tolani, Principal, College of Engineering Ahmedabad.
15. Sri B.N. Pal, Superintendent, Bengal Tanning Institute, Calcutta.
16. Sri J.N. Dey, Principal, Govt. Central Textile Institute, Kanpur.
17. Sri T.P.B.S. Gupta, Principal, Technological Institute of Textiles, Bhiwani.
18. Sri A.K. Sen, Head of Commerce Dept., City College, Calcutta.
19. Sri K.P. Roy Chowdhury, Principal, Assam Civil Engineering School, Gauhati.
20. Sri M.R. Tokhi, Principal, G.S. College of Economics & Commerce, Nagpur.
21. Sri M.K. Murti, Principal, East Punjab School of Engineering, Gurdaspore.
22. Sri S.C. Merb, Principal, F.S. Parekh Technical Institute, Surat.
23. Rev. A.M. Coyne, Principal, St. Xaviers College, Bombay.
24. Sri M.M. Bhattacharya, Principal, Hewett Engineering School, Lucknow.

(b) The following members of the Association have either retired or resigned or ceased to be principals.

1. Dr. C. Forester, Principal, Indian School of Mines & Applied Geology, Dhanbad.
2. Sri. D. Y. Athawale, Principal H. B. Technological Institute, Kanpur.

3. Mr. W. E. J. Beeching, Principal, Osmania Technical Collage, Hyderabad.

4. Sri B.M. Das, Suprintendent, Bengal Tanning Institute, Calcutta.

5. Atul Cose, Principal, Govt. School of Art, Calcutta:

6. Sri J.A. Taraporevala, Principal, Collage of Engineering, Poona.

7. Sri B.D. Puri, Principal, Thomason College of Engineering, Roorkee.

8. Sri N.N. Sen, Principal, Bengal Engineering College, Howrah

9. Sri S.K. Ramaswamy, Principal, College of Engineering, Bangalore.

10. Dr. N.N. Godbole, Principal, College of Technology, Banaras Hindu University, Banaras.

(c) Your Council nominated the following for life membership :—

1. Dr. Charles Forester, Ex-Principal, Indian School of Mines & Applied Geology, Dhanbad.

2. Sri J.A. Taraporevala, Ex-Principal, College of Engineering, Poona.

3. Sri B.M. Das, Ex-Superintendent, Bengal Tanning Institute, Calcutta.

4. Sri Gerald Ladey, Ex-Principal, Thomason College of Engineering, Roorkee.

5. Sri N.N. Sen, Ex-Principal, Bengal Engineering College, Howrah.

6. Sri E.K.Ramaswamy, Ex-Principal, College of Engineering, Bangalore.

7. Sri N.N. Godbole, Ex-Principal, College of Technology, Banaras Hindu University, Banaras.

8. Sri Atul Bose, Ex-Principal, Govt. School of Art, Calcutta.

9. Lt. Col. W.E.J. Beeching, Ex-Principal, Osmania Technical College, Hyderabad.

Dr. Shiv Narain, Ex-Principal, College of Engineering, Poona and Mr. B.D. Puri have been enrolled as associate members.

There were three vacancies on your Council—one from the Southern Zone in place of Mr. E.K Ramaswamy, Bangalore, and two from the Norhern Zone in Place of Mr. B.D. Puri, Roorkee and Dr. N.N. Godbole, Banaras. Election was made by postal voting, and accordingly Principal J. P. Das, School of Engineering, Bangalore, Principal D.R. Dhingra, H.E. Technological Institute, Kanpur and Principal M. Sen Gupta, Collage of Engineering, Banaras Hindu University, Banaras will be in the Council from 1949—50. There has been no other change in the Council.

3. Representatives of the Association.

Sri H.B.Shroff, Sri N.N. Sen, Sri B.D. Puri, Sri Atul Bose and Dr. N.N. Godbole having retired or ceased to be Principals, the Council recommends the following in their places to represent the Association on the different bodies. :—

1. Dr. S.R. Sen Gupta, Principal, Bengal Engineering College, Hawrah in place of Sri N.N. Sen, Ex-Principal, Bengal Engineering College. Howrah on the All India Council for Technical Education.

2. Dr. D Swarup, Principal, College of Mining & Metallurgy. Banaras Hindu University, Banaras in place of Sri N.N. Sen, Ex-Principal, Bengal Engineering College, Howrah on the All India Boards of Technical Studies in Engineering & Metallurgy.

3. Principal B.C. Bhattacharya, Bengal Textile Institute, Serampore in place of Mr. H.B. Shroff, Dy. Director of Industries (Education), Khanpur on the All India Boards of Technical Studies in Textile Technology.

4. Sri B.D. Puri to ramain on the Architecture & Regional Planning Board till such time as the Council decides.

5. Mr. V.S. Adurkar, Director, Sir J.J. School of Art, Bombay in place of Mr. M.J. Antia, Ex-Principal, Sydenham College of Commege, Commerce on the All India Boards of Technical Studies in Commerce & Business Administration.

6. Dr. N.N. Godbole to remain till such time as the Council decides.

4. Branch Reports.

The Zonal Secretaries have sent their reports on what is being done in their respective Zones with regard to development of Technical Education. The first half of their reports has been already published in the Nov. 1948 issue of the Journal. The full reports will come out in May 1949 issue. The Zonal Secretaries were supplied with a list of Institutions whose Principals are not yet members of the Association so that they might be approached by the Zonal Secretaries for information regarding development of their Institutions.

5. Annual General Meeting.

The annual general meeting of the Association was held at Thomason College of Engineering, Roorkee on the 14th April, 1948. After the routine business there were discussions on the following:

(1) The need for writing text books in English on different Technical subjects for junior courses.

(2) Methods of Teaching in Technical Institutions.

(3) Facilities for Practical Training of the Students.

(4) Ways and means for bringing into being a class of consulting engineers of Indian nationals.

(5) Training of Technician-administrators.

6. Your Council took the following actions on the last year's resolutions of the Conference:—

(i) Regarding Methods of Teaching in Technical Institutions.

Individual opinion of the members were asked for. The views of the members have been published in the February 1949 issue of the Journal. This will be a subject for discussion at the symposium of this year's conference.

(ii) Facilities for Practical Training.

The Council has complied information regarding facilities for practical training of Technical students in Govt. and Commercial firms during vacations or after completion of their courses. These particulars will be published in the Journal for information of the members and a memorandum prepared for submission to the Government.

(iii) Travelling Fellowship.

The Council through its President approached the Ministry of Education for establishment of Travelling Fellowships for Principals and experienced teachers of Technical Institutions to visit U.K. and U.S.A. for studying the development of Technical Education in those countries. In this connection, it is gratifying to note that the Govt. have prepared modified schemes for a period of three years under which the following categories of people may be sent abroad for training:

(i) Scientists and technicians with established reputation in their own fields may be sent for a short period, say about six months, to keep abreast of latest developments and to visit laboratories and industrial concerns;

(ii) Younger teachers from Universities and other Educational Institutions who need further advanced training for varying periods with a view to improving the standard of institutions, where they are already working;

(iii) Comparatively younger man who may require longer periods of study and training abroad.

The Overseas Scholarship Scheme has been put up for discussion at the present conference. The comments, if any will be communicated to the Govt.

(iv) Consulting Engineers Committee.

A committee was set up by the Council for devising ways and means to create a class of consulting engineers in India who would be able to advise the Government and the business community on problems of industrial development. The following members served on the committee:—

Chairman	Rai Bahadur M.C. Bijawat, Irrigation Adviser to Govt. of India.
Member-Secretary	Mr. Jangbir Singh, Deputy-Director General of Industry & Supply, New Delhi.
Members	Principal P.N. Joshi, Bombay. Principal R G.P.S. Fairbairn, Delhi. Principal T. Sen, Jadavpur. Mr. G.V. Apte, Jamshedpur.
Secretary	Mr. A. Das Gupta.

The Hony. Secretary invited comments and suggestions from the Members of the Association so that they could be placed before the Committee for consideration. The Committee met at Delhi on the 18th and 19th March, 1949. Principal P.N. Joshi was unavoidably absent but sent his valuable comments in writing. Several comments had been received from the members also. All these comments were carefully considered and the various aspects of the problems were discussed.

The interim report of the Committee is ready. The Committee, however, has not had time to invite opinion from the Institution of Engineers and prominent persons in the profession, nor to examine existing private practitioners. As the matter is of great importance to the Council, the Committee felt that the report should be circulated and published in the press to elicit opinion. The final recommendations will be made to the Government after these suggestions and opinions have been considered.

(v) Recruitment of Staff.

In respect of the difficulties in recruiting suitable persons in the teaching staff of the Technical Colleges, the Council felt that though a good number of scholars had been sent overseas by the State, unfortunately, many of them did not get facilities for practical training during their stay abroad. The Council suggested to the Ministry of Education that perhaps the Technical Institutions would employ these youngmen as members of the teaching staff if the Government could provide them with scope for practical training during vacation in Govt. concerns and in big industries in our country. On this, the Ministry has taken action and has asked for details from the Principals regarding staff re-

quirements for their Technical Institutions. In this connection the members are reminded that the Council will soon ask for statistics regarding the staff problems and request members to record the success or otherwise of advertisements for all grade of staff.

(vi) Text Book Committee.

Your Council set up a committee to examine and report on the possibilities of getting text books written in English on different technical subjects for junior courses. The Committee met and discussed several questions in respect of the subject. The full report will be soon available.

(vii) The Code of Professional Conduct.

The sub-committee on the Code of Professional Conduct submitted its report to the Council on the 14th Nov. at Delhi. The Council adopted the Code with minor modification. The Code now reads as follows :—

1. Principals should at all times preserve the dignity and interests of their profession and of the Association by a high standard of professional and personal conduct.
2. They should ensure the greatest possible freedom in academic matters and they should resist any pressure which is not in the best interest of the institution.
3. They should not engage in personal advertisement or canvass for an appointment, nor take any action which is detremental to sister institutions.
4. They should at all times endeavour to establish and maintain the best possible conditions of service for their teaching and non-teaching staff.
5. Principals should at all times be prepared to give to other Principals information on matter relating to the organization, equipment and administration of their institution.
6. When a principal represents the Association he should so for as possible state the policy of the Association. If he is in disagreement with the policy he may inform the Association and if the Council decides, he will resign his representation.
7. Where, having regard to the code, a member wishes to make a complaint, or a charge against another member, of the Association he should make his complaint in writing to the council. If the Council is of the opinion that a *prima facie* case of infringement of the code has been established it will appoint a committee for investigation. On the report of the committee, the Council will make a final decision as to what action shall be taken.

(viii) Building Materials (Steel & Cement) for expansion of Technical Institutions.

The Council has addressed the Ministry of Education and the Education Departments of the Provincial Governments to prepare a consolidated statement about the requirement of the building materials for technical institutions every year in advance and send to the Director General of Industry & Supply for action. The members of the Associations were also asked to intimate their requirements of cement and steel direct to the Ministry or the Departments

(ix) All India Courses.

The Council has brought to the notice of the Technical Institutions of India the great importance of the All India Courses in Technological Subjects run by the All India Council for Technical Education. These All India Courses are now recognised by the Government of India as equal to Degree Courses of Universities.

(x) Maintenance of Annual Records of Important Technical Institutions.

Records for the years 1945 and 1946 in respect of (*i*) number of students undergoing training in different classes in each of the courses and (*ii*) the number of students that come out successful after completion of the courses in important technical institutions in our country are ready and will be published in the next issue of the Journal. The Council is now collecting figures for the years 1947 and 1948. The compilation will be complete by May 1949.

7. Publication.

The papers read at the symposium of the Bombay meeting have been published in a brochure. Mr. C.E. Preston has joined the Editorial Board with effect from February 1949 in place of Mr. Beaching. The Council has started a quarterly Journal from April, 1948.

The four issues of the first year have appeared in print. The members are taking active interest in the Journal. The special features of the Journal are the (*a*) *Ourselves Column*, where the activities of the Association are recorded; (*b*) *News and Views Column* on educational activities of the Centre and of the Provinces; (*c*) *Technical Institution Column*, where progress of important Technical Institutions is shown, and (*d*) *Articles* by members. The Council has been congratulated by the A.P.T.I. (England) on the production of the Journal which it finds to be very useful and informative. Mr. P.W.R. Homfray, who was the Technical Adviser to the Journal having left India, Mr. C. Biswas Assistant Director, Administrative Intelligence Room, has kindly accepted the position. The Council expects each member to support the Organisation by subscribing the magzine for himself as well as for the Institution library.

8. Budget and Financial Position.

The audited balance sheet of the Association for 1947-49 is as follows:

Statement of income and expenditure of the Association of Principals of Technical Institutions for the financial year 1947-48.

		Income			*Expenditure*		
1.	Opening Balance on 1.4.47.	Rs. 33	1	4			
2.	Grant-in-aid from the Central Government.	Rs. 8,661	0	0			
3.	Sale of publications.	Rs. 341	14	0			
4.	Membership subscription (including bank charges) (Excluding Rs.110/- for subscription 1948-49).	Rs. 531	6	0			
5.	Advt. on publications. (Excluding advance of Rs. 66/- for A.P.T.I. Journal).	Rs. 105	0	0			
1.	Office establishment.				Rs. 5,184	0	0
2.	Travelling Allowance.				Rs. 3,154	12	0
3.	Stationery & Newspaper				Rs. 135	14	0
4.	Printing charges.				Rs. 954	11	0
5.	Postage & Telegrams.				Rs. 253	2	3
6.	Library.				Rs. 75	0	0
7.	Audit Fee.				Rs. 50	0	0
8.	Furniture & Fittings.				Rs. 11	4	0
9.	Expenses incurred in Bombay for despatch of publications etc.				Rs. 20	13	0
10.	Miscellaneous. (Conveyance, Duplicating charges, Meetings, Bank Charges, Zonal Branches, etc.).				Rs. 231	10	0
		Rs. 9,672	5	4	Rs. 10,081	2	3
*	Less amount payable.				Rs. 1,625	11	0
					Rs. 8,455	7	3
	Repayment of part of loan incurred during 1946-47.				Rs. 700	0	0
		Rs. 9,672	5	4	Rs. 9,155	7	3
	Clearing Balance.				Rs. 516	14	1
		Rs. 9,672	5	4	Rs. 9,672	5	4

**Amount Payable.*

1.	Travelling Allowence.	Rs. 1,151	4 0
2.	Newspaper.	Rs. 18	10 0
3.	Printing charges.	Rs. 435	0 0
4.	Expenses incurred in Bombay for despatch of publications.	Rs. 20	13 0
		Rs. 1,625	11 0

(Sd) B.S. Kapur *(Auditor).*

(Sd.) R.G.P.S. Fairbairn *(Hony. Treasurer).*

(Sd.) A. Dass Gupta *(Hony. Secretary).*

The Council has asked for Rs. 14,192/- from the Central Government as grant for 1949-50. The details of the estimate of income and expenditure for 1949-50 are as follows:—

Budget Estimates for 1949-50.

A. Estimated Income.

1.	Grant in aid from the Government.	Rs.	14,192	0	0
2.	Membership Subscriptions.	Rs.	700	0	0
3. (*i*)	Sale of Publications.	Rs.	200	0	0
(*ii*)	Income from the Journal.	Rs.	1,690	0	0
		Rs.	16,782	0	0

B. Expenditure.

1.	Office establishment.	Rs.	6,852	0	0
2.	T.A. to the members of the Executive Council.	Rs.	5,000	0	0
3.	Printing & publication of the quarterly Journal.	Rs.	3,480	0	0
4.	Miscellaneous.	Rs.	1,450	0	0
(*a*)	Stationery (including Stencils & Duplicating Papper).	Rs. 150	0	0	
(*b*)	Audit Fee.	Rs. 50	0	0	
(*c*)	Library including Periodical & Newspapers.	Rs. 150	0	0	
(*d*)	Printing of Annual Reports & Accounts, Presidential address, Constitutions & list of members, etc.)	Rs. 500	0	0	
(*e*)	Postage & Telegrams.	Rs. 300	0	0	
(*f*)	Others (Conveyance, Duplicating charges, Miscellaneous expenses in meetings, advertisements etc.).	Rs. 300	0	0	
		Rs. 1450	0	0	
		Rs.	16,782	0	0

Grateful thanks due to the Ministry of Education for this financial and without which it would have been impossible to run the Association.

9. The Council has furnished information to the public on matters on relating to Technical Education in India. Miscellaneous other queries about Commerce and Industry have also been received and answered. It has always been difficult for the public to obtain correct and up-to-date information regarding the existence of the various types of Technical Institutions in India, let alone the information concerning the facilities for educational training that each provides. The Association compiled in 1947 four volumes of the book to furnish information on all aspects of Technical Education. The volumes have since been revised and made up-to-date; but in view of the recent publication of a similar work by the Ministry of Education, the Council has decided not to bring out the revised edition. The Council takes this opportunity to congratulate the Secretary of the All India Council for Technical Education on the publication of "Facilities for Technical Education in India"—a work unique of its kind.

REPORTS :—Mr. JOHN TERRY, representative of the Association on the All India Boards of Technical Studies in Architecture & Regional Planning.

The last meeting of the All India Board of Technical Studies in Architecture & Regional Planning was held in New Delhi on 10th Sept. 1948. At the beginning of the meeting, Mr. C.M. Master, late Professor of Architecture in Bombay, was elected Chairman for a period of one year. The following gentlemen were then co-opted to the Board as specialist :—

1. Professor S.S. Reuben (President of the Indian Institute of Architecture and Professor of Architecture at Bombay),
2. Mr. S.K. Joglekar (Town Planning Officer. C.P.W.D.) and
3. Mr. Vishwanath Prasad (Architect to the Government of Bihar)

The main business of the meeting was to consider a revised syllabus for the All-India Courses in Architecture, prepared by Mr. John Terry (Head of the Department of Architecture, Delhi Polytechnic). It was decided that such an important matter could best be dealt with by a small Committee. Accordingly, the following Committee was appointed :

The Chairman of the Board :

1. Dr. Koenigsberger (Director of Housing, Ministry of Health),
2. Mr. Walter George,
3. Mr. John Terry.

The other items on the Agenda of the meeting were all inter-connected with this matter.

The report of the Art Education Committee appointed by the Goverment of Bombay in 1947, in as far as it concerned Architectural Education was discussed. The Board considered that Architectural Education cannot be considered either as being an education solely in art, nor in engineering sciences: being a synthesis of art, engineering, and science, architecture must be recognised as a subject needing specialised study on its own. Accordingly, Schools of Architecture should not be considered as appendages to Art Schools or Engineering Institutions, but should be independent units.

The Committee appointed to deal with the Syllabus, held a two days meeting shortly after the General Meeting of the Board and, at the end, asked Mr. John Terry to re-draft a skeleton syllabus on the lines which the Committee recommended. This was done, and a further meeting was held on 22nd December 1948. The new draft was considered in detail, and was approved with one or two minor adjustments of times allotted to various subjects. It may be of interest to give an outline of the various subjects as suggested to be covered in future in schools of Architecture affiliated to the Board.

Year One :
- Introductory Course.
- History of Culture.
- Tuition in language of Instruction.
- Free-hand Drawing.
- Scale Drawing.
- Mathematics.
- Elementary Physical Sciences.
- Building Construction and Materials.
- Design Work.

Year Two:
- History of Culture.
- History of Architecture.
- Free-hand Drawing and Colour Theory.
- Building Constitution and Materials.
- Elementary Structural Mechanics.
- Surveying and Levelling.
- Design Work.

Year Three :
- Sociology and Economics.
- History of Architecture.
- Free-hand Drawing.
- Building Construction and Materials
- Structural Mechanics.
- Specification Estimating.
- Sanitation and Water Supply.
- Design Work.

Years

Four and Five: Sociology and Building Economics.
Town Planning and Landscape Architecture.
Acoustics.
Advanced Building Construction and Materials.
Advanced Structural Design.
Building Services.
Advanced Specifications.
Professional Practice and Office Administration.
Design Work.

This Syllabus will, presumably, be put to the Board for formal approval at the next meeting, to be held at the end of February, 1949.

2. Report from Mr. ATUL BOSE, Representative of the Association on the All India Boards of Technical Studies in Applied Art.

I was asked to attend only one meeting in 1948 held on 1st Oct. This is, at the same time, the only meeting of the Board, that I could attend, as the previous ones to which I was invited, were held during the disturbed periods in 1946 in Calcutta and in 1947 at Delhi. An incomplete copy of the proceedings of the aforesaid meeting was sent to me in Nov. 1948 by the Secretary. All India Board of Technical Studies to whom you may refer for fuller information. Under the circumstances, I do not think I can send any useful report on the activities of the Board during 1948.

My impression of the Board Meeting makes me feel however, that if there were members who were directly concerned with the subjects under discussion and had practical knowledge of their technique, deliberations of the Board would require less time and be more pointed. It may therefore, be considered whether the President of the A.P.T.I should call a meeting of the Principals of the Schools of Art (all members of the A.P.T.I.) to discuss the following points in regard to art training and make definite recommendations to Government for co-ordinate and standardised working of Art Training Centres:—

(*i*) Courses for Diploma, Post-Graduate and Teachers' Training.
(*ii*) Recruitment qualification of the Staff.
(*iii*) Scale of pay.
(*iv*) Grant from the Government.
(*v*) Accommodation and equipment.

3. Report from Mr. N. J. ANTIA, Representative of the Association on the All India Boards of Technical Studies in Commerce & Business Administration.

The Board was re-constituted in 1948. As the re-constitution took some time, a meeting of the Board could not be held until Sepetember, 1948.

However, as the examinations had to be held, the old Examination Committee was allowed to function. I was a member and Chairman of this Committee and I attended the first meeting of the Committee on 5th February, 1948. At this meeting the Programme of the Examinations was approved and Paper-setters and Examiners were appointed. Three Moderators were also appointed to scrutinise the question papers.

The results of the Examinations were scrutinised at the second meeting of the Examination Committee held on 2nd July 1948 and the results of the Examinations were declared. I was present at this meeting also.

The first meeting of the newly constituted Board was held on 13th September, 1948. I was present at the meeting and was the only member of the first Board. All the other members were new and I noticed that there was a serious break in continuity. Not only that but it appeared that the new members had a very vague idea of the aims and objects of the courses of study for the All India Diploma and Certificate Examinations.

Mr. Narhari Rao, Auditor General for India, was elected Chairman of the Board.

The following three membera were co-opte:

Mr. A.P. Benthall
Prof. M.J. Ghosh and
Prof. V.K.R.V. Rao.

As regards the actual business conducted at the meeting, there is not much to say.

The Board unanimously decided that one year's practical training was essential for the award of the All India Diploma, and they were against sandwiching it between the sessions in the form of short-term training. I entirely agreed with this decision.

I was not however in favour of another decision of the Board. This was with reference to a request for recognition of the Examinations of the London Chamber of Commerce in six relevant subjects for direct admission to the Third Year Class. The Board decided to grant this request, although I strenuously opposed this on the ground that the Indian Merchants Chamber, Bombay, was also conducting similar examinations and it was invidious to grant recognition to the L.C.C. Examinations. The All India Diploma and Certificate Courses aim at a very high standard and it would, in my opinion, be fatal to the future prospects to the examinations of the candidates to grant recognition to examinations of an inferior status. In my opinion, this question was not properly appreciated by the other members.

The Examination Committee and the Affiliation Committee were re-constituted. I was appointed to the Affiliation Committeee, but not to the Examination Committee. although I had actually functioned as its Chairman in 1948. I may be wrong, but I somehow got the impression that I was not well known to the other members, and the Secretary, Mr. Chandiramani was also not present at the meeting. Two other sub-committees were appointed, but I was again completely ignored—a position which I failed to understand.

A meeting of the Affiliation Committee was held on 15th December 1948. I attended this meeting and was elected its Chairman. At this meeting it was decided that before permanent affiliation was granted to any institution, it should be visited by a small Visiting Committee to be appointed for the purpose. Accordingly several Committees were constituted, and it was decided to request the Provincial Governments to agree to the applications of the Institutions situated within their respective territories being considered by the Board and also to assist the Visiting Committee by appointing a representative on each Committee.

So far no Institution has been reported on. This delay is probably due to the procedure adopted by the Affiliation Committee.

4. Report from Sri E.K. RAMASWAMI, Hony. Secretary, Southern Zone.

During the year under review the starting of two Polytechnic Institutions one at Devangere and one at Mysore has been sanctioned by the Government of Mysore. In the Hindustan Aircraft Factory at Bangalore, the management is actively considering the starting of a school to train skilled men for Aircraft Industry. An approach has been made for some of the Technical Institutions lying within the boundaries of this Zone to enroll themselves as members of the Association.

BRIEF REPORT ABOUT THE PROGRESS OF TECHNICAL INSTITUTIONS IN WESTERN - ZONE.

by

Mr. P. N. JOSHI, M. Sc., Tech. Secretary, Western-Zone.

Victoria Jubilee Technical Institute, Bombay.

During the second half of the year under report construction work which was undergoing has been completed. The new Electrical Engineering Block is now complete and the Hydraulics Laboratory was available for the students during the second term. The Air Conditioning Plant in the Textile Department has now been functioning for some time and it is possible now to carry out work of textile testing in accordance with the international standards. A new building is being erected for the Heat Engines Laboratory and it is expected that it will be ready before the new session in June begins.

2. The Institute sought affiliation for the introduction of degree courses in Civil Engineering and on the report of an Inspection Committee, the University Senate has recently granted the necessary affiliation. The Government of India have made available large capital and recurring grants for the introduction of the Civil Engineering courses as well as for the extension of Mechanical, Electrical and Textile Departments so as to increase the number of admissions and to make education more comprehensive.

3. Principal P. N. Joshi was re-elected to represent the Association of Principals of Technical Institutions (India) as a member on the All India Council of Technical Education and continues to be the Vice-President of the Association. The Secondary Industrial and Technical Education Committee of which he was the Chairman, has recently submitted its report to the Government and it is expected that some important changes in the secondary technical and industrial education will take place as a result of this report.

R. C. Technical Institute, Ahmedabad.

This Institute is being expanded by the Government of Bombay and considerable building activity is evident in the second half of the year. Additions to the Mechanical Workshops and class rooms, Electrical Laboratory, new hostel blocks etc., have been carried out at a total cost of about Rs. 2,25,000/-. Further sanction has been obtained from the Government for other buildings such as new Textile Workshops and rest house for visitors. Government gives freeships to the extent of 20% of the students on roll and these were continued during this year. The Government have also sanctioned additional posts on the teaching staff as follows:—

(1) Senior Lecturer in Textiles from June 1950 in the scale of Rs. 220-15-400 - E.B. - 20-500.

(2) Engineering Superintendent from June 1949 in the scale of Rs. 200-10-300.

(3) Lecturer in Textile Chemistry from June 1949 in the scale of Rs. 180-10-280.

(4) Lecturer in Weaving from June 1949 in the scale of Rs. 180-10-280.

The Mahomed Haji Saboo Siddik Technical Institution, Bombay.

This Institution is divided into two sections viz., the Technical High School section and Technical Institute section and both are recognized by the Government of Bombay. The Institute receives an annual grant of Rs. 15,000/- from the Bombay Government. The Technical High School section prepares students for the S.S.C. Examination of the Education Department of Bombay Government. The School is now a full-fledged Technical High School and has recently added lower standards from I to III so as to act as a feeder for the Technical High School. Adequate provision has been made for the teaching of art and crafts in these three standards. New equipment in the shape of Lathes and a Shaping Machines were added to the Mechanical Workshop and the equipment for the Electric and Radio Laboratories was slso considerably improved. Higher Grade Certificate Electrical Engineering Course of three years duration was started during this year for those who have read upto the Matriculation class.

Sorabjee Nusserwanjee Paruck Parsi Polytechnic Institute, Surat.

This Institute imparts instruction in two types of courses viz., Diploma and Apprentice - the former being of three years duration and the latter of two years duration. Moreover Workshop Apprentice courses in various trades have also been started with a view to give pure Practical Training in one particular trade for two years. There are three main departments in the Institutes — Automobile, Electrical and Internal Combustion (Diesel). Admission is at present confined to students coming from the Parsi Community only. There are 79 students undergoing Diploma courses and 53 undergoing Apprentice Course. Hostels are provided and about 85% of the students live in hostel. Annual examinations are held by the Board of Technical and Industrial Training. It is contemplated to open Steam Engineering Department for which the Institute has received a donatian of Rs. 3 lakhs.

Northcote Technical High School, Sholapur.

This is the first Vocational High School opened by the first Congress Ministry in the year 1939. During the year 1949-50 two more bays of 99' x 24'-3" size are under construction and they will accommodate the Technical

Drawing halls and carpentry shops. The total number of pupils on the roll is 430. Owing to the pressure for admission experienced during the previous two years, an additional division of Std. IV was opened in March, 1948 and additional divisions will be progressively opened during the subsequently years in the higher standards.

Physical education is given systematically on modern lines and care is taken to see that each student takes part in it. The work of the school is highly appreciated by the Provincial Inspector for Physical Education.

The School has a set of 16 mm. Talkie Projector and interesting films are shown regularly to the students.

Two sub-units of the National Cadet Corps with 60 pupils are attached to this School and for this purpose two members of the staff are trained as officers.

The school is now under the charge of Mr. S.D. Parsharami, B. Sc. (Engr.) who is transferred from the Elphinstone Technical High School, Bombay.

Elphinstone Technical High School, Bombay.

The School buildings were acquired by the Defence Department during the war period. It seems however that with the restoration of the building to the high school it has been growing with rapid strides inspite of the several handicaps. The number of students seeking admission to the standard IV where the Technical Course begins, far exceeds the number of seats available. Even students who have reached higher standards of V or VI on the academic side are willing to be admitted to the standard IV of the technical side clearly indicating the growing attraction towards the technical branch of education.

The School does not yet possess a complete workshop of its own and a part of the workshop and laboratory training is being given in the V. J. T. Institute. It is hoped that in the near future the school will have a workshop of its own.

News & Views

I

While inaugurating the Annual Conference of the Association of Principals of Technical Institutions (India), on the 4th April, 1949 at Nagpur, His Excellency the Governor of C. P. & Berar, laid stress on three points ; which he said, were the essential requisites for the development of our country on modern lines. That India should be developed like other foreign countries, he added, was an indisputable fact. But unnecessary haste and lack of foresight may as well hamper our progress. Patience and foresight were very essential. Industrialisation and Agriculture expansion was not an easy task for a vast country like India. It could not be done over-night. Moreover there was certain deep rooted traditions which were also to be taken into consideration.

H. E. regretted that at present there were no co-ordination between the actual talent and its application in the proper field. Indian students had left an impression in the minds of the foreigners that they took education more for degree's sake than for the sake of knowledge. This attitude had to be given up. What we needed was actual work and not a mere degree.

The Government further pleaded for a liaison between the Government, the Industrialist, and technical institutions.

"Left to ourselves", H. E. added "within ten years we can produce if not the best at least equal to the best in the world. We have the genius. With a thorough planning of our programme and close thinking we could easily achieve that efficiency which is possessed by other great countries like England and America.

II

In connection with the scheme recently advertised in the Press for the training of Indian Engineers in open cast mining in the U. K. by Messrs Sir Lindsay Parkinson & Co., Ltd., the Government of India have constituted a Committee to interview suitable candidates and make recommendations to the Government, says a press note.

The Committee will consist of (i) Dr. J. C. Ghosh, Director-General, Industries and Supplies (Chairman); (ii) Mr. L. C. Corbett, Deputy Coal Commissioner (Production) Member/Secretary, and a representative of Messrs Sir Lindsay Parkinson (India) Ltd., Calcutta—Member.

The Committee will meet at Calcutta. The final selection will be made by Government after considering the recommendations of the Committee.

The training will be limited to 30 candidates. On satisfactory completion of the training and if found otherwise suitable, the engineers will be appointed to the specified posts in the Indian Mining and Construction Co., which is a joint enterprise of the Government of India and Sir Lindsay Parkinson (India) Ltd.

III

The Government of India, it is learnt, have agreed to participate in the fellowships' scheme of the U. N.

Under the scheme, India has been invited to nominate a limited number of persons for receiving advanced technical training in any field in other countries which participate in this scheme. It is understood that the Government of India are also offering a limited number of fellowships to persons nominated by foreign countries for advanced training in India.

India is expected to nominate persons for receiving foreign training in agricultural subjects and also for the following four subjects : Study of trend of developments in the U. S. A. in utilization of wind power for rural electrification; study of recent trends in power, costs and tariffs; study of recent practices in the U. S. A. on methods of avoiding interference with tele-communication circuits from power transmissoin; and study of recent practices in thermal power development.

India herself is in a position to offer facilities for advanced training and study in all aspects relating to water control, navigation, etc. at the Central Water-power, Irrigation and Navigation Research Institute at Poona and for the study of the working of combined water-power, flood control and navigation undertakings, such as the Mattur and Pykara projects.

Facilities are also being offered in connection with agricultural, forest and veterinary research and certain aspects of tele-communication.

Details of financial arrangements between the Government of India and U. N. are being negotiated.

IV

Proposals for the immediate increase of East Punjab's technical man-power and a long-term scheme in which the incorporation of technical teaching with academic teaching is suggested, are included in a report submitted by the Committee for Industrial and Technical Education appointed by the East Punjab Government in July 1948 under the chairmanship of Sadar Prabh singh Chawla.

It is expected that the scheme will be implemented at an early date.

The Committee proposes the setting up of ten more industrial schools and two technical institutes immediately as part of an intensive training scheme. For the long-term scheme, the setting up of 100 middle technical and 23 matric technical schools is suggested. It is also proposed to set up three textile institutes, one tanning institute, two polytechnics and one central college of engineering and technology to bring the province on level with advanced countries in the sphere of technical education.

The intensive training scheme is expected to make 3, 340 artisans of different standards available to trade annually. The cost of this is estimated at Rs. 11 lakhs Expenditure and Rs. 25 lakhs recurring.

The long-term scheme is expected to training 5,000 middle technical, 1,190 matric technical, 80 diploma technical, 120 B. Tech. and 45 M. Tech. annually.

Capital expenditure on the long-term scheme, which is expected to be spread over a period of five to seven years is estimated at Rs. 100 lakhs and recurring expenditure at Rs.36 lakhs annually.

V

Hijli (West Bangal), will be India's one of the highest seats of learning for science and technology.

The proposed Higher Technological Institute at Hijli, will make a beginning early next year and gradually assume its full stature when 4,000 students will be given facilities for research and post-graduate studies. The Education Ministry aims at building the institution on the model of the Massachusetts Institute of Technology.

The construction of buildings and installation of scientific apparatus are expected to commense very soon. A budgetary provision of Rs.18 lakhs for this purpose has been made this year. According to the original estimate made two years ago, if would require an initial expenditure of Rs. 3 crores for the institute to start functioning in full capacity. In view of the rise in prices, the actual expenditure to complete this institution is likely to be much more.

The Institute will be the first of four similar institutes to be established in different parts of the country. The second one will be founded at a site near Bombay. Suitable sites for the other two—one in the northern and other in the southern region are being selected.

VI

The Higher Technical Institute for Northern India should be located at Kanpur, the Co-ordinating Committee of the All-India Council for Technical Education recommended at its meeting held in Calcutta on 12th April, 1949.

VII

The first Convocation of the Technological Institute of Textiles, Bhiwani, for the award of Diplomas to the successful students, and the formal opening ceremony of the Institute Building after its establishment in the year 1943, took place on 9th May 1949, when Hon' ble Dr. Gopichand Bhargava, the Education Minister, East Punjab, declared open the Institute building and delivered the Convocation address.

Representatives of the Association 1949-50.

I. **All India Council for Technical Education.**
   1. Mr. P. N. Joshi, Principal, Victoria Jubilee Technical Institute, Bombay.
   2. Dr. S. R. Sen Gupta, Principal, Bengal Engineering College, Howrah.

II. **All India Boards of Technical Studies in Engineering and Metallurgy.**
   1. Dr. K. C. Chakko, Principal, College of Engineering, Annamalai University, Annamalainagar.
   2. Dr. D. Swarup, Principal, College of Mining and Metallurgy, Banaras Hindu University, Banaras.

III. **All India Boards of Technical Studies in Chemical Engineering and Chemical Technology.**
   1. Dr. N. N. Godbole, Ex-Principal, College of Technology, Banaras Hindu University, Banaras.
   2. Mr. S.C. Roy, Director, Indian Institute of Sugar Technology, Kanpur.

IV. **All India Boards of Technical Studies in Commerce and Business Administration.**
   1. Mr. S. N. Agarwal, Principal, Govindram Saxaria College of Commerce, Wardah.
   2. Mr. A. Das Gupta, Head of Commerce Department, Delhi Polytechnic, Delhi.

V. **All India Boards of Technical Studies in Textile Technology.**
   1. Mr. P. N. Joshi, Principal, Victoria Jubilee Technical Institute, Bombay.
   2. Mr. B.C. Bhattacharya, Principal, Bengal Textile Institute, Serampore.

VI. **All India Boards of Technical Studies in Architecture and Regional Planning.**
   1. Mr. John Terry, Head of Architecture Department, Delhi Polytechnic, Delhi.
   2. Mr. B. D. Puri, Thomason College of Engineering, Roorkee.

VII. **All India Boards of Technical Studies in Applied Art.**
   1. Mr. D. P. Roy Chowdhury, Principal, Government School of Arts & Crafts, Madras.
   2. Mr. V. S. Adurkar, Director, Sir J. J. School of Art, Bombay.

VIII. **Pre-Engineering Board.**
   1. Dr. J.C. Ghosh, Director General of Industry and Suppy, New Delhi.
   2. Mr. M. Sengupta, Principal, College of Engineering, Banaras Hindu University, Banaras.

IX. **Indian Standards Institution (Drawings Sectional Committee).**
   1. Mr. M. Sengupta, Principal, College of Engineering, Banaras Hindu University, Banaras.
   2. Mr. A. C. Sahgal, Principal, Kalabhavan Technical Institute, Baroda.

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