

# Indian National Congress

(Foreign Department)

---

## Education in Germany

### Engineering

In Three Parts

Part I General Remarks on Study in Germany

Part II The German Language

Part III The Study of Engineering

Issued by the  
Indian Information Bureau  
Mauerstrasse 52 Berlin - Germany

July 1929

Manuals for Modern Languages on the

# Gaspey-Otto-Sauer Method

Universally recognized as the best  
media for private and self-teaching

The following grammars and  
textbooks for the study of

## the German language

have been published

	Reichs- mark
German Conversation Grammar by Otto 32 Ed	5 —
Key to the German Convers-Grammar by Otto 24, Ed	1 80
Elementary German Grammar by Otto 11 Ed	3 —
First German Book by Otto 10 Ed.	2 —
Materials for transl Engl 1 Germ by Otto Wright 7. Ed	2 40
Key to the Mater for transl Engl 1 Germ by Otto 3 Ed	1 20
German Dialogues by Otto 6 Ed	3 —
Accidence of the German language by Otto-Wright 2 Ed	1 80
German verbs with their appropriate prepositions by Tebbitt	1 —
German language by Becker	2 40
The Compound verbs of the German language by Bauer	5 —
English-German Conversation Book by Connor 4 Ed	3 —
The Traveller's Companion by Moth German	1 50

Ask for detailed catalogues and for editions issued for other and  
in other languages

Owing to their great practical utility the manuals composed accord-  
ing to this method are talked about and recommended everywhere  
and are used in millions of copies in innumerable schools and specia-  
lly in private schools and for self instruction all over the world.

Obtainable at all booksellers' in Germany and abroad

**Julius Groos, Publisher**  
Heidelberg (Germany)

## CONTENTS

General Remarks on Study in Germany	Page 3—17
The German Language . . . . .	" 18—21
The Study of Engineering . . . . .	" 22—26
Reference Library . . . . .	" 27—28
Questionnaire . . . . .	" 31

# HINDENBURG POLYTECHNIC

OLDENBURG i. O.

Municipal Academy of Engineering

*Architecture / Electrotechnics / Machine Construction  
Civil Engineering / Factory Technics*



Aeroplane Construction.

Automobile Construction.

High-Frequency/Broadcasting Station.

*Terms begin on April 15th and October 15th*

*Latest Prospectus No J obtainable from the Secretary*

## Otto Harrassowitz

Querstr. 14, LEIPZIG

Bookseller specialising in Oriental Literature  
Original publications regularly imported from all  
Oriental countries

Largest stock of Oriental Literature on the Continent

---

### *Latest Catalogues:*

Nr. 408	India . . . . .	4343 nos.
Nr. 412	Uralaltaic Peoples and Languages	2703 nos.
Nr. 415	Islam . . . . .	3725 nos.
Nr. 418	China . . . . .	2037 nos

## Part I

### General Remarks on Study in Germany.

#### Why Indians should study in Germany.

It is a deplorable fact that, while, some 3000 Indians study annually at universities and other institutions in Great Britain, there are no more than a few dozen on the Continent of Europe. During the currency inflation (1920—1923) several hundreds of Indians came to Germany to profit by the cheap living. Many of them were serious, hard-working students who did credit to themselves and enhanced the reputation of their country. Some were unfortunately frivolous men who came only for amusement. But there is no doubt that all of them, whether students, tourists or business men derived profit from the mere fact of having lived in a non-British country and come into contact with people of other nationalities who at least treated them as equals and as human beings.

But as soon as the German Mark became stabilised, there began to be a marked fall in the number of Indian students in Germany. When asked why they do not come here for study, they usually reply that Germany is "too expensive" and that there is "the language difficulty". We shall here briefly deal with these alleged difficulties and sum up the various cogent reasons why Indians should come to the European Continent, and particularly to Germany, for university education and technical training.

#### 1. Germany less expensive than England.

Indian students in England spend not less than £ 20 to £ 30 a month (perhaps more at Oxford and Cambridge). The cost of living for a student in Germany is from £ 15 to £ 20, according to the town in which he lives and the subject of study. It seems strange that Indians should be prepared to spend large sums on mostly useless studies in England (law, etc), while they are unwilling to spend a much smaller amount on more useful instruction in countries educationally more advanced than Great

**Britain** The argument that Germany is more expensive is absolutely without foundation

## **2. The "language difficulty"**

When the Mark stood low and foreigners could live extremely cheaply here at the expense of the German people, the hundreds of Indians who came here did not then raise the "language difficulty" This difficulty seems to have suddenly arisen only when the Mark was stabilised It seems a shame that Indians who have already been compelled to learn a European language, English, should find it "difficult" to take up a new language related to English, whereas Chinese, Korean, Japanese, Mongolian, Persian, Turkish, Egyptian, Arab and North African students come in hundreds to German institutions, often with no previous knowledge of any European language Besides, German is now an obligatory language for students of science at the British Universities and Colleges of Technology and there is no reason why Indians should find it easier to learn German in Great Britain than in Germany

## **3. Germany the land of science, technics and industry.**

It is universally admitted that there is hardly any branch of science or technical knowledge in which Germany does not occupy a leading position among the nations It is almost impossible for any student to acquire an advanced knowledge of his particular subject without a knowledge of German and without thorough familiarity with the enormous research work accomplished by Germans

## **4. Indians treated as equals.**

If there were no other reasons for Indians to come to Germany, the mere fact that they are treated here as equals and respected as a cultured race should be a sufficient inducement Indian students are received with special sympathy, kindness and even affection While this favourable treatment should be regarded as an invitation to profit by German educational institutions, it at the same time imposes a duty on all Indians to maintain a high standard of life and conduct during their stay in Germany.

## **5. Indians admitted to factories.**

It is the experience of all Indian students of engineering and other branches of technical science, that it is impossible to gain admission into British factories except by paying high premiums (amounting to as much as 100 guineas a year) and by obtaining official recommendations. In Germany, on the contrary, there is not the least difficulty for Indians, who have the necessary education to enter electro-technical, machine and other factories, where no premium is usually charged

## **6. Germany centre of international activities.**

The central position of Germany and its highly developed intellectual, artistic and industrial life and activities, have made this country the centre of international movements of the most varied kind. By living and studying in Germany, the Indian student not only acquires the new mentality brought by a knowledge of so rich and important a language as German, but comes into contact with thought-provoking movements and ideas very different from those he has been accustomed to in his narrow education in India and England. He meets in friendly intercourse hundreds of serious men and women of all nationalities who are to play an important part in the progressive movements of their respective countries and he thus cultivates international relationships and develops an international outlook.

### **The Indian Information Bureau, Berlin.**

In order to encourage Indian students to come in larger numbers to the Continent of Europe and more particularly to Germany, the Indian Information Bureau has been opened in Berlin (at Mauerstr 52 — Cable address „Indinform Berlin“) on behalf and with the official support of the All-India Congress Committee. It aims primarily at supplying Indian students with information regarding all branches of education in Germany and helping them on their arrival to gain admission into universities, technical and industrial schools and factories.

Experience has shown that enquiries from Indian students are generally of a very vague character and that considerable ignorance prevails even as regards the general conditions of life and study in Germany.

In order to save time and to avoid unnecessary correspondence the Information Bureau purposes to issue a series of booklets dealing with special branches of study. Each booklet will consist of three parts. Part I will contain general information and suggestions. Part II will deal with the study of the German language. And part III will be devoted to a special branch of study. Parts I and II will be common to all the booklets.

No advice can be given by the Indian Information Bureau unless full details are supplied on the following points

- 1) Age
- 2) Full address and profession of father or guardian
- 3) Exact information relating to school, college and university education obtained, and in the case of technical students, information also regarding any practical training already obtained.

- 4) The special subject or profession or industry in which instruction is desired
- 5) How much money the student has for his stay in Germany.
- 6) What career the student has in view after returning to India.

All advice and information will be supplied gratis to students as the Bureau is being supported by the Indian National Congress for this purpose. But it should be borne in mind that those who are conducting the Bureau are doing honorary work, and students are particularly requested not to enter into unnecessary correspondence.

(The printed questionnaire at the end of this booklet should be correctly filled up and returned to the Indian Information Bureau by students intending to come to Germany.)

### **Commercial enquiries.**

As has already been stated the Information Bureau is run primarily in the interests of students, but it is prepared to answer commercial enquiries provided

- 1) The enquiries are confined to a particular line of business
- 2) They are clear and definite
- 3) A fee of ten shillings is sent in advance, as replies to commercial enquiries entail an enormous amount of correspondence

Enquiries not confined to one particular line of business will not be answered by the Bureau

### **Reference Library.**

The Bureau maintains a Reference Library for the use of students and publicists. Publishers, authors and newspaper editors are requested to present complimentary copies to this library.

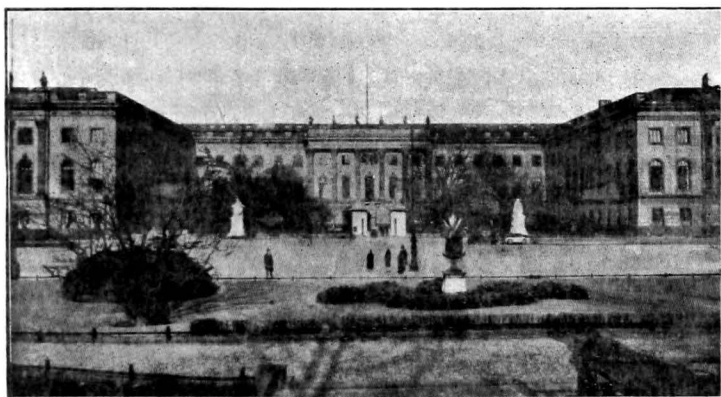
### **Language.**

It is hardly necessary to emphasize the fact that the language of instruction in Germany is naturally German and not English. It is useless for anyone to come to this country for study unless he is prepared to acquire a sufficient knowledge of the German language to enable him to follow the courses in the universities and schools or to derive benefit from his training in factories. Every effort should be made to learn German in India under a good teacher before starting for Germany. In any



case it is advisable for students to come to Germany at least 4 to 6 months before the beginning of the university terms — the summer term begins in April and the winter term in October — so as to acquire a working knowledge of the language. There is an excellent course for foreigners at the Foreigners' Institute of the Berlin University which has courses throughout the year. In addition, it is advisable to work with private teachers. Every help in this respect will be given by the Bureau. Special information regarding the study of German is contained in Part II of the present Bulletin.

### Educational Institutions.



Berlin University.

Indian students often ask whether training is obtainable in Germany in this or that branch of knowledge. It may be stated in general that there is no country which has such efficient and such comprehensive institutions for instruction in all subjects as Germany. There are no "residential colleges" in Germany, where students also get board and lodging. Nor are there "fixed courses of instruction" or "fixed annual courses". With the exceptions pointed out in each special case, there are no "intermediate" examinations or promotions into "higher classes", but the principle of liberty in the arrangement of studies is maintained, which means that the student himself chooses the courses of study suited to his individual taste, inclination and requirements, consulting only the "Examination Regulations" and "Plans of Study".

The following are the institutions of chief interest to Indian students.

### I. Universities

There are 23 universities 1) Berlin, 2) Bonn, 3) Breslau, 4) Erlangen, 5) Frankfurt am Main, 6) Freiburg, 7) Giessen, 8) Göttingen, 9) Greifswald, 10) Halle, 11) Hamburg, 12) Heidelberg, 13) Jena, 14) Köln, 15) Kiel, 16) Königsberg, 17) Leipzig, 18) Marburg, 19) München, 20) Münster, 21) Rostock, 22) Tübingen, 23) Würzburg,

with fully equipped faculties for

1) Theology, 2) Law and political sciences, 3) Medicine (including dental and, at some universities, veterinary medicine) 4) Philosophy (including philosophy proper and psychology, philology, literature and languages, history, geography, economics, mathematics, astronomy, physical and natural sciences, physiology, marine biology, anthropology etc)

The above are faculties in all universities Some universities have special faculties for

1) Political sciences and economics, 2) Natural sciences, 3) Social sciences, including politics, commerce, economics and cooperatives etc (confined to the two universities of Frankfurt am Main and Köln).

A large number of scientific institutions, museums, "seminaries" and laboratories, are connected with the universities, offering opportunities for practical as well as theoretical studies and research work on almost every subject

NB The study of Homoeopathy is not recognised by the Ministries of Education in Germany and therefore no courses on this subject are given in the universities.

### II. A) Technical Universities.

There are 11 Technical Universities 1) Aachen, 2) Berlin-Charlottenburg, 3) Braunschweig, 4) Breslau, 5) Danzig, 6) Darmstadt, 7) Dresden, 8) Hannover, 9) Karlsruhe, 10) München, 11) Stuttgart,

with faculties for

1) Architecture, 2) Civil Engineering, 3) Mechanical Engineering, 4) Electrical Engineering, 5) Mining (only Aachen and Berlin), 6) Metallurgy (only Aachen, Berlin and Breslau), 7) Chemistry

In these faculties almost every branch of industry is taught, theoretically as well as practically (to a certain extent) Some universities specialising in certain branches and others in other branches. For instance Ship-building and naval engineering are paid special attention to at Berlin-Charlottenburg and Danzig only,

while Karlsruhe is good for gas and light, Braunschweig, Darmstadt and Stuttgart for pharmacy, Darmstadt and Dresden for paper and cellulose manufacture, leather and tanning, Munchen for the fermentation industry and agricultural chemistry; Braunschweig and Dresden for sugar, Berlin-Charlottenburg has, among other subjects, town-planning, as well as civil, mechanical and electrical engineering, machine tools, factory technics, chemistry, mining and metallurgy Dresden and Munchen have a special faculty of economic sciences for the technical-industrial training of economists A large variety of scientific organizations, technical institutions, laboratories etc are attached to, or in some way connected with, the Technical Universities, where seats for independent research work can be applied for.

### **B) Mining Academies**

In addition to the mining and metallurgical faculties at the Technical Universities, there are two special mining academies, one at Clausthal and the other at Freiburg, with the following faculties 1) Mining, 2) Metallurgy of Iron, 3) Metallurgy of non-ferrous metals, 4) Surveying of Mines, 5) Auxiliary Subjects.

### **III Higher Engineering Colleges.**

a) **Higher Colleges for Machine Construction and Ship-building** (Hohere Maschinenbauschulen und höhere Schiffbau- und Schiffsmaschinenbauschulen) at Aachen, Altona, Berlin, Bremen, Breslau, Chemnitz, Dortmund, Elberfeld-Barmen, Esslingen a N, Hagen, Hamburg, Kaiserslautern, Karlsruhe, Kiel, Koln, Leipzig, Magdeburg, Nürnberg, Stettin, Wurzburg

b) **Technica (Engineering Colleges)** See Part III

c) **Special Ship-building Schools** at Bremen, Hamburg and Kiel

d) **Metallurgical Schools (Hüttenschulen)** at Duisburg and Gleiwitz

e) **Professional Schools for special branches of the metal industry.**

For machine construction at Altona, Augsburg, Ansbach, Kaiserslautern, Landshut and Wurzburg, for the iron and steel industry at Siegen, for the steel goods industry at Solingen, for the metal and bronze industry at Iserlohn, for blacksmiths at Rosswein in Saxony, for fine mechanics and watchmaking at Berlin, Gottingen, Glashütte in Saxony, Schwenningen a N and Stuttgart, for apparatus construction at Hannover, for electrotechnics at Kaiserslautern and Schwenningen, for factory technics and installations at Koln.

#### IV. Veterinary Universities.

There are three special universities for veterinary medicine, at Berlin, Dresden and Hannover, besides special sections for veterinary medicine at the universities of Giessen, Jena, Leipzig and Munchen

Institutions attached to the veterinary universities are Anatomical Institute, Physiological Institute, Chemical Institute, Pathological Institute, Hospitals, Surgical Institute, Hospitals for small and for big domestic animals, Pharmacological Institute, Ambulance Hospital, Institute for Food Research, Dispensaries, Institute for Animal Breeding, Hygienic Institute, Institute for Blood-Testing etc

#### V. Agricultural Universities.

There are 4 Agricultural Universities 1) Berlin, 2) Bonn-Poppelsdorf, 3) Hohenheim, 4) Weihenstephan (Bavaria)

There are agricultural departments in the universities of 1) Breslau, 2) Giessen, 3) Gottingen, 4) Halle, 5) Hamburg, 6) Jena, 7) Kiel, 8) Koenigsberg (Prussia), 9) Leipzig, while agriculture is a special faculty at the Technical University of Munchen

The subjects taught are

1) Agriculture, 2) Geodesy, 3) Agricultural Technology, 4) Trades connected with Technical Agriculture, 5) Auxiliary subjects, 6) General subjects

Lectures are held in the following subjects

1) Agricultural administration, 2) Cooperative organisation, 3) Physics, 4) Chemistry, 5) Botany, 6) Zoology, 7) Agricultural Engineering, 8) Animal breeding, 9) Dairy methods, 10) Bacteriology, 11) Veterinary Medicine, 12) Science, 13) Mineralogy and Geology, 14) Brewery and Distillation of spirits, 15) Hop cultivation, 16) Cultivation of Moorland, 17) Forestry, 18) Fruit cultivation, 19) Gardening, 20) Sugar Manufacture and Refining etc, 21) Fisheries

#### VI. Academies of Forestry.

There are 3 forestry academies 1) Eberswalde, 2) Hanoversch-Münden and 3) Tharandt in Saxony (now department of the Technical University of Dresden), while there are forestry departments at the universities of Freiburg, Giessen, Munchen and at the Technical University at Karlsruhe

The subjects taught are Forestry and kindred subjects. History of Forestry, Geodesy, Meteorology, Physics, Chemistry, Botany, Zoology, Political Economy, Law, Agriculture, Geology and Mineralogy, Mathematics, Surveying Science, Technical Administration, Hunting, Fishery etc.

(There is a Forestry School at Eisenach, requiring Indian university matriculation for admission, but conferring no degrees, the course is 4 terms)

### VII. Commercial Universities.

There are 6 commercial universities 1) Berlin, 2) Koeningberg, 3) Leipzig, 4) Mannheim, 5) Munchen, 6) Nurnberg There are special departments for commerce at the universities of Koln and Frankfurt a Main.

The subjects taught are 1) Commercial sciences, 2) Political Economy, 3) Colonisation, 4) Insurance, 5) Cooperative organisations, 6) Traffic, 7) Law, 8) Commercial Geography and History, 9) Knowledge of Merchandise, 10) Technology, 11) Languages, 12) Educational Science, 13) Natural Sciences, 14) Financial Science, 15) Banking, 16) Bookkeeping etc

### VIII. Academies for Fine Art and Music.

1) Berlin-Charlottenburg, 2) Breslau, 3) Dresden, 4) Duesseldorf, 5) Karlsruhe, 6) Cassel, 7) Koeningberg, 8) Munchen, 9) Stuttgart, 10) Weimar, 11) Leipzig

Subjects taught are 1) Painting and Drawing, 2) Sculpture, 3) Graphic Arts, 4) Architecture, 5) Printing Methods, 6) Textile Arts, 7) Applied Arts, 8) Decoration, 9) Book-decoration, 10) Photography, 11) Ceramics, 12) Mathematics, Anatomy, Perspective, Chemistry, Botany, Zoology, Technology of Colours and Paints, 13) Knowledge of Materials, History of Art etc, 14) Sacred and Secular Music

### IX. Various Higher Colleges.

In addition to the above there are various colleges and scientific institutions for 1) Administration, 2) Aeronautics, 3) Astronomy, 4) Agriculture, 5) Chemistry, 6) Economics, 7) Education, 8) Fishery, 9) Languages, 10) Testing of Materials, 11) Medicine, 12) Meteorology, 13) Philosophy, 14) Physics, 15) Politics, 16) Seismology, 17) Sport, 18) Textiles etc

### X. Special Industrial Schools.

For every branch of industry there is a special industrial school The most important industries for Indians are Glass, ceramics (pottery, porcelain), sugar, paper, leather and tanning; shoemaking, textiles (spinning, weaving, dyeing, bleaching, calico-printing), soap, oils and fats, optical industry, photography and cinematography, graphic arts, book printing, lithography, food canning (meat, fish, vegetables and fruit) etc

A special handbook containing full details about industrial schools will be issued shortly by the Indian Information Bureau

## Degrees and Diplomas.

The only degree conferred by universities is the doctor's degree. The following are the principal degrees

Dr theol (theology),

Dr jur (law),

Dr phil (philosophy, philology, languages and literature, history, physical and natural sciences, fine arts, music etc),

Dr med (medicine),

Dr med dent (dentistry),

Dr med vet (veterinary medicine),

Dr rer pol (political sciences),

Dr agr (agriculture),

Dr forest (forestry),

Dr rer oec (technical economics)

The Technische Hochschule confers two degrees:

Dipl Ing (Diploma in Engineering),

Dr Ing (Doctor of Engineering).

Some confer also Dr. rer tech (technical sciences) and Dr rer oec (economical sciences)

All other schools give diplomas and certificates but no degrees

As Indians have acquired the absurd habit of wanting to write a large number of letters after their names, we should like to point out that all degrees and diplomas in Germany are the result of academic work and that there are no such cheap letters here as M R A S, F. Z S etc, as are obtainable in Great Britain by paying a subscription to a society

There is another point to which we must draw special attention. Indians who have been teachers or lecturers in Indian Colleges sometimes come for study to Germany. They are known as "professors" in India. But the title of "Professor" in Germany is conferred by the State on University teachers who have made published contributions of recognized value in their special subject. Indian students are strongly advised not to use the title of "professor", "pandit" or "maulana", as it makes their position as students ridiculous and does injustice to distinguished Indian scientists and scholars.

## Qualifications needed.

The most regrettable fact about Indian students is either that they do not themselves clearly know what they want to study or they wish to leave India with insufficient preliminary education. We should like to state that it is inadvisable for any

Indian student to come to Germany, unless he has already received a good training in India

For those who wish to join a university in Germany it is highly advisable to have the B A, B Sc or some other Bachelor's degree of an Indian university, although students who have passed the F A, I A or I Sc of an Indian university are now admitted as regular students to German universities. Those who have studied two years at an Indian University but have failed to pass one of these intermediate examinations may be admitted provided they pass a special supplementary examination (Ergänzungsprüfung). Such students register at first as mere "Hearer" for 1, 2 or 3 terms, preparing, — side by side with the regular studies —, for this supplementary examination, the subjects of which are the German language and 3 other subjects chosen from the curriculum of studies of a German school (Gymnasium, Oberrealschule, Realschule) e g German, Mathematics, Physics and Chemistry for students to join a Technical University. Special application for this supplementary examination has to be addressed to the "Zentralstelle für das Studium der Ausländer", Berlin, (Central Board for Foreigners' Studies), enclosing copies of certificates and a statement of the subject the student intends taking up at the University, Technical University etc. A successful pass converts the preceding "hearer-terms" into fully recognised terms. Capable students may be exempted from this supplementary examination provided they have attended the University for at least two semesters and have satisfied their Professors as to their capacity.

The minimum period of study at a university is 3 years, although in some subjects such as chemistry, students usually need more than 3 years.

No student is advised to join a Technical University (Technische Hochschule) who has not at least the B.Sc. or B E degree and who is not prepared to devote at least four years to his university and one year to his practical training. For those who wish to acquire sufficient technical training to become good practical engineers or enter industrial life under the conditions at present obtaining in India it is often advantageous to join a higher college for machine constructions (see above under "Educational Institutions" III).

Those who wish to take up a branch of industry must be prepared to stay here for a period of 1 to 4 years according to their special needs. They should thoroughly study the conditions of the industry in India (nature of raw materials and driving power available, the market, the capital at their disposal, the labour market etc) before leaving for Europe. Only those who come

equipped with full information on these matters can derive real benefit from their training in Germany

### **Documents required for admission.**

1) The highest college certificate in the possession of the applicant, which has to be submitted in original and in a certified German translation,

2) An application to the university or college authorities written in German and signed by the applicant,

3) An account of the student's academic career, containing a complete sketch of his education, written in German and signed by the applicant,

4) Sufficient Knowledge of German to follow lectures is demanded of all those who wish to be admitted as regular students

Without the above documents no admission can be granted in advance nor any definite assurance given

Certificates will be translated and translations officially certified as correct, and applications and academic records prepared by the Indian Information Bureau after the arrival of the student

### **Concessions.**

Concessions of one or more semesters (semester, term, session are identical expressions and mean a period of study of half a year) are granted by universities to students who possess higher academic degrees such as M. A, M E, M D etc Generally speaking, the number of terms attended at an Indian University after the Bachelor's degree (B A, B Sc. etc.) are recognized and allowed for, but proper certificates proving such attendance must be submitted Those who have the Bachelor's degree in Arts, Science, Engineering, may also obtain concessions not exceeding two terms. A fully qualified medical man with the degree of M B or M D is admitted to the doctor's examination, but he must attend a German University for at least two semesters These concessions are, however, not granted as a matter of routine, but accorded individually by the professors concerned, on the merits of the student's scholarship and ability

### **Factory training.**

The Bureau will do its best to place Indian students in German factories, but desires to emphasize that entrance into chemical and pharmaceutical factories is practically impossible. In general, it is easiest to get into machine factories doing export business such as the great electro-technical concerns of Siemens and Halske, Siemens-Schuckert, A E G (Allgemeine Electricitats-



Gesellschaft) and Bergmann Those who intend setting up factories of their own in India and are in a position to purchase their machinery in Germany may generally be sure of obtaining complete training in the particular branch of industry in which they wish to specialise For practical training in engineering (electro-technical, mechanical, railway etc), shipbuilding, motor and aeroplane construction, certain mining and metallurgical processes, the refining of oil, wood distillation, in the textile industry (spinning, weaving, dyeing and bleaching, calico printing, the manufacture of soap, glass, pottery, porcelain, paper, sugar, printing inks, bricks and tiles, matches, furniture, boots and shoes etc, enamelling, tanning, book-printing and lithography, dairy farming, the canning of fish, fruit, vegetables and meat, as well as in a number of useful industries for which Germany manufactures special machinery (knitting, embroidery, tape, buttons, carpentry, wood work, chains, nails etc) it is possible to find scope for Indian students to get a thorough training It must be repeated that, as a rule, no payment should be expected from the factory for work as apprentices, and in certain cases, as for example, for admission into factories manufacturing soap, glass etc. a premium varying from £ 10 to £ 30 may have to be paid in order to obtain admission and training

### **Finance.**

The average sum needed for study in Germany is £ 15 per month This covers board and lodging, washing, tramway expenses, and partially fees and clothing. But it must be pointed out that students of science, especially chemistry and medicine, need somewhat more money (about £ 5 per month extra) as they have to purchase their own apparatus For the first two months, especially the first month, for obvious reasons, the expenses of boarding and lodging are likely to be somewhat heavier. A large number of Indian students wish to know whether they can earn money in Germany while studying While we regret that poverty should be a hindrance to studies, we strongly warn students not to attempt to come to this country with the idea that they can earn their living There is considerable unemployment in Germany and it is not possible for Indians to be paid for work in factories etc

### **Calendars and Prospectuses.**

We regret our inability to forward prospectuses of the various schools, because these publications appear from term to term, and moreover, are printed in the German language only They appear in February-March for the summer and in June-July

for the winter session, and can be had on application to the Secretariat of the institution concerned, if the price at which they sell in enclosed

### **Postage.**

Much inconvenience and expense are caused by the fact that a large number of letters from India are insufficiently stamped. It should be remembered that the postage for an ordinary letter from India As 3 (three annas) and for a post-card  $1\frac{1}{2}$  As (one and a half anna). Information will be supplied to students gratis by the Bureau, but all contributions are welcome. It is, however, useless to send Indian postage stamps for replies, as they cannot be used in foreign countries.

### **Clothing.**

As clothing generally brought from India is not suited for wear in Europe, it is advisable to make the necessary purchases in Germany. Indian students must be particularly informed that the student class in Germany is accustomed to simple, hard living and to serious work, and Indians who come here must be emphatically warned against attempting to import to Germany the snobbish manners, expensive and idle habits, and extravagant clothing characteristic of Oxford and Cambridge.

### **Passports and Visas.**

Students intending to proceed to Europe whether from British India or from the Indian States must provide themselves with a British passport. It is advisable to have this made valid for all European countries, so as to enable students to travel during the holidays. Persons in possession of a British passport do not need a German visa to come to Germany.

### **Shipping Lines.**

Enquiries regarding steamers to Europe should not be addressed to the Indian Information Bureau, but to tourist bureaus in Bombay or Calcutta. The principal shipping lines from Bombay, Calcutta, Colombo or Rangoon to European ports are Lloyd Triestino (Italian), Messageries Maritimes and Chargeurs Réunis (French), Nippon Yusen Kaisha (Japanese), Hansa Lloyd (German freight steamers), and P and O, B I S N., Orient Line and Bibby Line (British).

Indians should provide themselves before leaving India or on board the steamer with some money of the country in which they will land so as to pay porters, register luggage, for meals etc.

### **Arrival at European Port.**

On alighting from the steamer at European port, students should attend to the following points a) they should register their heavy luggage through to their German destination, but keep the most necessary articles with them in a small suit-case, as there are sometimes delays in the arrival of heavy luggage, b) they should attend personally to the customs examination of their registered luggage at every frontier station, c) they should provide themselves with German money to the value of about £ 5

### **Arrival in Germany.**

It is impossible for the Indian Information Bureau to make arrangements for meeting Indians at the station on their arrival in Berlin. The Bureau has no staff at its disposal for this purpose. Indians are advised to take a taxi-cab or a porter and go to the nearest hotel for a day or two and then to call at the Bureau. The office hours are 10 a m to 5 p m on all week-days from Monday to Friday and 10 a m to 2 p m on Saturdays. The Bureau is closed on Sunday and public holidays. Addresses of suitable hotels and boarding-houses can be supplied on demand to anyone before he leaves India.

### **Board and Lodging.**

There are no hostels in Germany and Indian students generally rent one or two rooms in private families, with or without board, making their own arrangements with the landladies regarding food, if they do not prefer taking their meals outside in some restaurants. There are also many vegetarian restaurants. But vegetarian diet should not be encouraged in a country with climatic conditions such as obtain in Germany.

### **Minimum Fee.**

While information and advice regarding studies in Germany will be supplied gratis to all students and institutions in India, every student who, on his arrival in Germany, wishes to avail himself of the services of the Indian Information Bureau will be charged a minimum fee of £ 1. The monthly subsidy granted by the All India Congress Committee is just sufficient to pay the expense of maintenance of the office. It is intended to make the Bureau not only self-supporting as far as possible, but to acquire funds for widening the scope of its work and activities. All Indians who are satisfied with the help rendered them by the Bureau or appreciate the importance of the Bureau are invited to contribute to the funds.

## Part II

### The Importance of the German Language.

We have already pointed out in Part I that a thorough knowledge of the German language is necessary for Indians who wish to study in this country and that there is no real difficulty in learning the language, which belongs to the same Germanic branch of the Indo-European (Aryan) family as English

There is unfortunately a tendency, especially among those who have been brought up and educated through the medium of English, to believe that this is the most important and the most widely spoken language in the world Geographically and politically, this is true, for, in addition to Great Britain, the United States, Canada, New Zealand and Australia, where English is the language of the people, that language has been introduced by the very fact of British domination into vast areas such as India, South Africa, China, Egypt, etc for administrative purposes, although only a very small percentage of the population of these countries can read and write at all, much less read and write English (In India, e g out of 320 millions only some 28 millions are literate, and only some 4 millions have some little knowledge of English) For the Indian student who is really anxious to learn science, technics or industry, and who does not believe that the future of his country depends on his learning only English enough to get a government job, the above mentioned countries (except the U S A) are perfectly useless Unless then he goes to the U S A, his only alternative is to come to the Continent of Europe, where German is the dominating language of education, science, commerce and industry.

We shall here briefly point out a few facts which will demonstrate the importance of German It is the language of Germany (70 millions) and of Austria (7 millions), it is the official language of Switzerland where 70 % of its population of 4 millions are Germans, it is spoken throughout the former territories of the Habsburgs (Czechoslovakia, Hungary and Galicia), it is understood by 3 % of Belgians whose mother tongue, Flemish, is a Low German language, it is an obligatory language in the schools of Holland, Sweden, Norway and Denmark, and it is understood throughout the Baltic States (Esthonia, Lithuania and Letland) as well as in those countries (Russia, Poland, Roumania and the Balkans) where the European Jews live, for these speak Yiddish which is a mixture of German and Hebrew In other words, throughout Europe, excluding Great Britain and the Latin countries (France, Spain, Portugal and Italy) a knowledge of German is absolutely indispensable for students, teachers, economists and politicians, businessmen and industrialists. In the annual output of printed

books Germany stands highest, its production in 1928 being as high as 27,794 and it is the greatest producer of indispensable scientific, technical and lexicographical literature (Japan, it may be mentioned incidentally imports more German than English books, while there is a movement in Turkey to make German compulsory in the schools Persia has numerous German schools and there is a German Technical College in China)

### **German should be learnt in India.**

It is advisable that Indian students wanting to come for their education to Germany should commence the study of German in India itself Opportunities for this are probably lacking, particularly for those not residing in large cities like Bombay and Calcutta In any case, students should take care to see that they are taught only by competent and qualified persons There are a number of Germans resident in the large Indian towns who may be willing to teach German and whose addresses may be obtained from the German Consul-General in Calcutta or the German Consul in Bombay or Colombo There are also a number of qualified Indians all over India who have taken their degrees at German universities and some of whom are quite competent to teach German The Foreign Department of the Indian National Congress has recently begun keeping a register of Indians knowing German and other foreign languages Application for information regarding such Indians in any particular city should be made to the General Secretary, A I C C Allahabad.

### **Indian students should come at least 4 to 6 months before terms begin.**

Those Indians, who, for one reason or another, are not in a position to begin learning the language in India, should make up their mind to come to Germany 4 to 6 months before the commencement of the terms The winter term begins in October and the summer term in April. Students who wish to study at the Technical Universities should join the latter in October

### **German Institute for Foreigners.**

In this connection special attention may be drawn to the German language courses arranged by the "Deutsches Institut für Ausländer" (German Institute for Foreigners) in the University of Berlin, established by the Ministry of Education The courses, viz, lower, middle and upper, are of 2 months' duration each, and are concluded by examinations, success in which is sufficient for admission into a University, Technical College etc

as a regular student. Sessions: Prospective students are therefore advised to sail for Germany 6 months in advance of the opening of the term which takes place on April 15th for the summer and October 15th for the winter session, so that they may have time to pick up the language meanwhile.



German Institute for Foreigners.

### **Special Arrangements for Indian students in Berlin.**

Apart from the regular course in German for foreign students provided by the university and the facilities for obtaining private tuition, the "Deutsches Institut für Ausländer" is willing

to make for Indian students, if they come in batches of fifteen or twenty, special, convenient and advantageous arrangements which will extend not only to the teaching of German but also to boarding and lodging and subsequently also to the obtaining of admission into the institutions which they wish to join. In this case the students immediately on their arrival will be lodged as paying guests in good families and taught German on an average three hours a day. Over and above the lessons in the accepted sense of the term, the students will also have excellent opportunities for conversation, so that they will be able to learn the language pleasantly, easily and quickly. Opportunities will also be provided for out-door exercises and other recreations. By this arrangement, freshers will not only be saved from the trouble of hunting for rooms and teachers, but also from the danger of falling into the pitfalls of a large and new town, the language of which is unfamiliar to them.

Indian students pursuing their studies in England can also make use of this arrangement to study German during the long vacation. It provides them with an excellent opportunity for learning a new and exceptionally important language and seeing a new country. At the end of three to three and a half months' stay they can go back, or, if they so desire and also if they possess the other necessary qualifications, can join German universities either immediately or at a subsequent date. At all events, at the end of their stay they would know German sufficiently to be able to read books and converse easily. The knowledge thus acquired they can preserve and improve by independent work.

It is not demanded that only students who possess the same educational qualifications or who intend to pursue the same or allied lines of study should form a batch. The main thing is that they should arrive in a group or groups of fifteen to twenty. In order that this condition is fulfilled it is necessary that the students should report themselves sufficiently in advance to a central organization (in the case of Indian students from England to an organization in London and of students from India to one in India) interested in this work, and also to our office in Berlin.

The total charge made under this arrangement will be £ 12 sh 10 per month per student, viz. £ 9 for board and lodging; and £ 3 sh 10 for tuition and other expenses.

We hope that Indian students both from England and India will not fail to take advantage of this arrangement which has worked successfully and satisfactorily with students of various nationalities, among them also Chinese and Turkish students.

## **Part III**

### **The Study of Engineering.**

Indian students desirous of taking up engineering as their profession or of completing their engineering education in Germany should pay attention to three considerations in their choice of a suitable institution in Germany 1) the education they have already obtained in India, especially in Mathematics, Physics, Chemistry, Descriptive Geometry and Geometrical Drawing, 2) the time and money they have at their disposal, 3) the career they have in view In the present industrial and political condition of India, there is less room for first-rate engineers and specialists than for qualified engineers capable of managing smaller factories, work shops and repair works Only those who already have received sound scientific education (such as B Sc, M Sc, D Sc, B E, M E) should attempt to take up the highest technical training in Germany which is available at the Technical Universities Most Indian students would, in our opinion, do well to join the Higher or Lower Machine Construction Schools or Technica which have already been mentioned in Part I or III In order to help students to make a correct choice, we shall explain at some length the standard of education at the various categories of technical institutions

#### **Technical Institutions in Germany.**

The institutions in Germany for the study of the different branches of engineering (mechanical, electro-technical, mining, naval and aeronautical) may be divided for Indian purposes into the following classes:

##### **A. Engineering Universities.**

- 1) Technical Universities (Technische Hochschulen)
- 2) Mining Academies (Bergakademien)

##### **B. Higher Engineering Colleges and Special Schools for the Metal Industry.**

- 1) Higher Machine Construction Colleges and Higher Colleges for Ship-building and Naval Machine Construction (Hohere Maschinenbauschulen und Hohere Schiffsmaschinenbauschulen)
- 2) Technica or Engineering Colleges.
- 3) Ship-building and Ship-machinery schools
- 4) Machine Construction and Metallurgical Schools
- 5) Special Schools for the Metal Industry



## A. Engineering Universities.



Technical University of Berlin.

### 1) Technical Universities.

The names of the towns possessing Technical Universities have been mentioned in Part I.

Qualifications needed for joining a Technical University: see Part I.

#### **The Conditions of admission are:**

- 1) Knowledge of the German language as for all universities;
- 2) factory training of at least six months before commencing studies.

#### **Term and Duration of studies.**

8 semesters (4 years) in addition to the six months' factory training already mentioned, but including a further six months' obligatory training which can be taken in instalments during the summer holidays. The winter term begins in October and the summer term in April. Students should join only in the winter term. Applications must be made not later than the 1st of September for the winter term and March 1st for the summer term.

#### **Fees.**

The admission fee is 25 Marks. The fee payable each term (half year) is about 250 Marks.

**Concessions.** See Part I.

**Syllabus of studies.**

It has already been pointed out that all technical universities have faculties for mechanical, electrical and civil engineering, aeronautics, architecture and chemistry and that each university specializes in one or more of these or other branches. To give a more complete idea of the course of studies at such universities we shall here mention the syllabus of the well known Technische Hochschule of Berlin-Charlottenburg

**Technical University of Berlin.**

The University is divided into four faculties, with the exception of the first one, they consist of several sections

1) Faculty for general sciences, particularly for Mathematics, Natural and Economic Sciences

2) Faculty for Civil Engineering: a) Section for Architecture, b) Section for Civil Engineering (general)

3) Faculty for Machine Construction: a) Section for Mechanical Engineering, b) Section for Electric Engineering, subdivided into high tension current (Dynamos, Motors, Power houses etc), low tension current (Telegraph, Telephone, Wireless telegraphy etc), c) Section for Naval Engineering, subdivided into ship-building and shipmachinery, d) Section for Aeronautics including construction of aeroplanes and machines used for them

4) Faculty for the manufacture of materials Sections for a) Mining, subdivided into General Mining Engineering and Surveying of Mines, b) Chemical Engineering and Industrial Chemistry including the manufacture of all chemical products, as e g to mention only some important ones, manufacture of paper, porcelain, leather, dyes, soap etc

5) Metallurgical Engineering, subdivided into a) Metallurgy of iron and b) Metallurgy of non-ferrous metals

**Examinations.**

There are two examinations during the whole course of study namely. 1) the first examination and 2) the final diploma examination. There is no fixed time when a student must appear for these examinations, but generally it is expected that a regular student should take the first examination at the end of the 4th term and the final examination at the end of the 8th term. The necessary fees for the examinations are for the first examination 40 Marks and for the final examination 80 Marks. The examinations are held twice a year. With the exception of the thesis for the diploma examination they are all oral.

### **Degrees.**

Students who pass the final diploma examination obtain the degree of Dipl Ing (Diploma Engineer) After obtaining this degree, a student may by special research work proceed to the degree of Dr Ing (Doctor of Engineering)

## **2) Mining Academies**

There are two academies, one at Clausthal and the other at Freiberg (Saxony)

**Qualifications needed.** Same as for a Technische Hochschule

**Time:** 8 terms.

**Faculties:** 1) Mining, 2) Metallurgy of iron, 3) Metallurgy of metals, 4) Surveying of Mines, 5) Auxiliary subjects

## **B) Higher Engineering Colleges and Special Schools for the Metal Industry.**

### **1) Higher Machine Construction Schools.**

**Places.** See Part I

**Qualifications needed.** I A. (with Mathematics and Science) or I Sc or I E

**Conditions of admission.** Knowledge of German and two years practical training

**Terms and duration of studies.** The course lasts five terms (two years and a half) The winter term begins in October and the summer term in April

**Examinations.** Every term, and final examination after the fifth term

**Certificate.** Granted after examination

**Fees.** The fees vary according to the German State in which the school is situated In Prussia the fees for foreigners are 300 Marks per term (half year), in other states somewhat lower

## **2) Technica (Engineering Colleges).**

Besides the above mentioned schools, which are all State or Municipal institutions, there are other engineering institutions, both State and private, known as Technica, which teach different branches of engineering and chemistry, the standard is almost as high as the Universities or Higher Machine Construction

Schools The syllabus and duration of study correspond more or less to the latter. The best known Technicums are 1) Cothen (General), 2) Mittweida (Machine Construction, Electrotechnic, Automobile Construction, Aeroplane Construction, Wireless, Factory technics), 3) Reutlingen (Textile), 4) Freiberg (Tanning), 5) Altenburg (Paper), 6) Ilmenau (General), 7) Frankenhausen (General and Aeronautics), 8) Oldenburg (Architecture, Machine Construction, Aeronautic, Wireless), 9) Blankenburg for Carpentry, Woodcarving and Artistic Wood work by machinery etc, 10) Sternberg, Strelitz, Wismar, Eutin, Hanichen, Lemgo, Bad Sulza etc (General)

### **3) Ship-building and Ship-machinery Schools.**

Same conditions as B 1) (Higher Machine Construction Schools)

### **4) Maschine Construction and Metallurgical Schools.**

**Places.** See Part I

**Qualifications.** At least Matriculation

**Conditions of admission.** Knowledge of German and 4 years practical training

**Terms and Duration of Studies.** The course is 4 terms (2 years). Winter and summer term each year, beginning in October and April respectively

**Examinations.** At the end of each term (half year) and final examination after the 4th term

**Certificate.** Granted after the final examination

**Fees.** Vary according to the State. In Prussia foreigners pay Mk 175, in other States somewhat less

### **5) Special Schools for the Metal Industry.**

**Places.** Enumerated in Part I

**Qualifications.** Matriculation

**Conditions of admission.** Knowledge of German

**Duration of studies.** From 2 to 6 terms, according to the industry

**Examinations.** After finishing course

**Certificate.** Granted after examination

**Fees.** Vary. Information regarding any particular school can be had on application

## Reference Library.

Complimentary copies of the following books have been received for the Reference Library of the Bureau (May-June 1929):

- The Purdah System and its Effect on Motherhood.** By Kathleen Olga Vaughan (Heffer Cambridge) 2 sh 6 d
- Britain and Germany.** Edited by Rolf Gardiner and Heinz Röschol (Williams and Norgate Ltd London) 7 sh 6 d.
- British Imperialism in East Africa.** Colonial Series Nr. 1 (Labour Research Department London) 6 d.
- British Imperialism in Malaya.** Colonial Series Nr 2 (Labour Research Department London) 6 d
- British Imperialism in China.** Colonial Series Nr 3 (Labour Research Department London) 6 d
- British Imperialism in West Africa.** Colonial Series Nr 4 (Labour Research Department London) 6 d
- British Imperialism in Egypt.** Colonial Series Nr 5 (Labour Research Department London) 6 d
- Zaka Ullah of Delhi.** By C F Andrews (W Heffer & Sons Ltd Cambridge) 7 sh, 6 d
- The Modern World.** By F S Marvin (Longmans, Green & Co. Ltd. Cambridge) 7 sh 6 d
- Lithuania 1928.** Edited and compiled by E J Harrison (Hazell, Watson & Viney Ltd London) 4 sh
- The Indian National Congress 1928** (Allahabad Law Journal Press Allahabad) 8 as
- India in 1927-28.** By J Coatman (Government of India Central Publication Branch Calcutta) 4 sh 6 d
- Journalism in India.** By Pat Lovett (The Banna Publishing Company Calcutta) Rs 2
- A Woman of India.** By G S Dutt (The Hogarth Press London) 4 sh 6 d
- Islam.** By Henry Lammens (Methuen & Co Ltd London) 8 sh 6 d
- A History of British Socialism.** By M Beer (G Bell & Sons London) 2 vols 7 sh 6 d each
- The American Federal System.** By K Smellie (Williams and Norgate Ltd. London) 5 sh
- Stresemann.** By von Rhembaben (Appleton & Co London) 10 sh 6 d
- Direct Building** (Labour Research Department London) 1 sh
- An Englishman Defends Mother India** (Genesh & Co Madras) 7 sh 6 d
- Studies of an Imperialist on War, India, Socialism.** By Lord Sydenham (Chapman & Hall London) 18 sh

- Legal Aspects of Social Reform.** By Paul Appasamy (Christian Literature Society for India Madras) Rs 3
- Law Applicable To Christians.** By Paul Appasamy (Christian Literature Society for India Madras)
- Some Leading Ideas Of Hinduism.** By Henry Haigh (Christian Literature Society for India Madras)
- Agricultural Co-Operation In India.** By John Matthal (Christian Literature Society for India Madras)
- Handbook and Directory of the Concrete Industry In India** (The Concrete Association Of India Bombay) Rs 1
- "Deutschland",** Lesebuch für studierende Ausländer By Professor Dr Karl Remme (Verlag des Akademischen Auskunftsamtes Berlin) 6 Mark
- Die Hochschulen Deutschlands.** By Professor Dr Karl Remme (Verlag des Akademischen Auskunftsamtes Berlin) 5 Mark
- Bezugsquellennachweis des Reichsverbandes der Deutschen Industrie.** By Dr. Seibt (Max Heitner Verlag München) 18 Mark
- Gewerbliche und kaufmannische Fachschulen in Deutschland** (Carl Heymanns Verlag Berlin)
- Berliner Hochschulführer 1929.** By Dr N Balk (Verlag Stubbe & Winkler Berlin) 1 Mark
- Festschrift der Universität Köln 1919-29.**
- Festschrift der Preussischen Bergacademie Clausthal zur 150 Jahresfeier**
- Praktische Grammatik der Hindisprache.** By Bonnerji (Verlag Hartleben Wien) 2 Mark
- The Bureau is also being regularly supplied with complimentary copies of several papers and periodicals published in India, Germany and other countries, too numerous to be mentioned here, as well as of prospectuses of all Universities, Technical Colleges, Technicums, Special Industrial Schools and other educational institutions in Germany

### The Dresdner Bank

The Dresdner Bank, with head offices in Berlin, is one of the big "D" Banks and ranks, therefore, among the largest institutions of this kind in Germany. The Dresdner Bank offers to corporations, firms and individuals, a thoroughly modern and complete commercial banking service. Special conveniences are offered to those engaged in foreign trade. It handles foreign exchange, collections, issues letters of credit and accepts deposits in all currencies.

# Leipzig International



## Industries Fair

Europe's best buying ground

Autumn Fair: from 25<sup>th</sup> till 31<sup>st</sup> August 1929

*About 10,000 Exhibitors from 24 countries,  
175,000 Buyers from 72 countries, 1,600 varieties of goods of all kinds*

*All information supplied by*

Leipziger Messamt, Leipzig

**N. G. GANPULEY**

**Maassenstrasse 13 \* Berlin W30**

(Cable Address „Organised Berlin“)

\*

undertakes

to answer **commercial** enquiries from India;  
to give advice regarding suitable industries  
and to supply estimates of machinery and  
complete plants.

**Gedruckt bei**

**Max Stadthagen, Berlin SO 36, Taborstraße 21**



# Questionnaire.

Subjects in which instruction  
is desired  
Industrial or technical training  
desired

Full name

Home address

Name, profession and status of father

Birth place, date, year etc

High School education

Names of schools attended with dates

Date when matriculation examination passed

Colleges or other institutions attended

Have you passed any Intermediate Examination (I A., I Sc., F. A., F Sc etc) ?

When and from what College

Subjects studied

Degrees obtained

When and where

Subjects studied for degree examination

Special training

Where .. .. . Dates

Certificates (full list with dates)

Recommendations

Do you know German? .. .. .

When do you intend to leave for Germany?

How much money at disposal? .. .. .

Probable career after education in Germany

Date .. .. . Signature

# Associated Technical Colleges of the **TECHNICUM MITTWEIDA**

Director: Hofrat Professor Dipl. Ing. A. HOLZT.



Oldest and most frequented College in Germany  
— Richly equipped laboratories, collections of models  
and reading rooms — Workshops for practical training.

- I. Higher Technical Colleges (Engineering High Schools)** for the training of mechanical and electrical engineers. Courses in general machine construction, automobile and aeroplane technics, scientific management of factories, electrotechnics.
- II. Machine Construction School** for the training of technicians for machine construction, electrotechnics and for gas, water and heating installations.
- III. Conditions of Admission:**
  - a) For Engineering Schools: at least I. A. or I. Sc. of Indian Universities and one year's practical training.
  - b) For Machine Construction School: Matriculation and 3 years' practical training.
- IV. Laboratories:** a) physical laboratory, b) electrotechnical laboratory for fine measurements, c) laboratory for measurement of light, d) laboratory for electrical measurements of machines and transformers, e) laboratories for testing of materials and factory technics, f) laboratories for measurements of gas and steam engines, steam turbines, boilers and automobile motors, g) laboratories for metallography, h) laboratory for high frequency and radio technics in conjunction with broadcasting and receiving stations, j) laboratory for technics of long-distance communications.
- V. Collections of Models** for general machine construction, technology, automobile and aeroplane technics, electrotechnics.
- VI. Special Facilities:** Students' Club, — Physical Exercises, — Accident Insurance
- VII. Terms** begin in April and October. Prospectuses on application to the Secretary.



# DRESDNER BANK

HEAD OFFICE: BERLIN W 56

SHARE CAPITAL PLUS OPEN RESERVE S

RM 134 000 000

Branches in all important German towns

such as

Aachen	Erlurt	Königsberg i Pr
Augsburg	Essen	Leipzig
Bielefeld	Frankfurt a M	Lubeck
Bochum	Freiburg i Br	Magdeburg
Bonn	Halle a S	Mannheim
Bremen	Hamburg	München
Breslau	Hannover	Nürnberg
Chemnitz	Heidelberg	Stettin
Dresden	Kassel	Stuttgart
Düsseldorf	Koblenz	Wiesbaden
Eisenach	Köln	Würzburg

Danzig

\*

Bucharest

Correspondents all over the World

**Letter of Credit Department**  
Berlin W 56 / Behrenstrasse Nr. 35-39

*Checks and letters of credit issued for all  
important towns in Germany and abroad*

**FOREIGN CURRENCY EXCHANGE**

For the convenience of our clients a branch office  
of the international travelling office

**En Route Service**

is attached to our Letter of Credit Department