Prof. P. C. Mahalanobis with 1952 batch of ISEC Trainees

Prof. C. R. Rao with 1969 batch of ISEC Trainees

Cover Photos (clockwise from top left): 1. Prof. S. P. Mukherjee, Chairman, ISEC Board of Directors felicitated by Dr. P. Pathak, Member-Secretary.
2. Prof. S. Bandyopadhyay, Director, ISI welcoming 2015 batch of ISEC trainees.
3. Prof. C. R. Rao, Ex-Chairman, ISEC Board of Directors awarding diploma to a trainee.
5. C. D. Deshmukh Bhavan, location of the ISEC.
Prospectus

70\textsuperscript{th} Term Regular Course
(2016 – 2017)

of

INTERNATIONAL STATISTICAL EDUCATION CENTRE
KOLKATA

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202, B. T. Road
Deshmukh Bhavan
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India

Under the auspices

of

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Government of India
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ISEC in Brief

Historically, the International Statistical Education Centre (ISEC), Kolkata, was founded in 1950 through the initiative of Professor P. C. Mahalanobis, and is currently run by the Indian Statistical Institute under the auspices of the Government of India. The ISEC was opened in Kolkata by the agreement between the International Statistical Institute and the Indian Statistical Institute. According to the agreement made between the two Institutes, the latter placed its existing facilities for teaching and training at the disposal of the Centre. The International Statistical Institute agreed to provide the services of teachers from outside to the maximum extent possible either by direct payment from the UNESCO grant or by arrangement with the various National or International Organizations. Currently, International Statistical Institute is not involved with the ISEC. Beginning with the third term of the ISEC Programme, the Central Statistical Office of the Government of India (GOI) is collaborating with the ISEC by organizing courses on Official Statistics.

The centre operates under a Board of Directors. Prof. C.R.Rao was functioning as the Chairman of the Board after the sad demise of Prof. P.C. Mahalanobis in 1972. Professor S.P.Mukherjee has taken over the chairmanship of the ISEC Board of Directors from 2016. On behalf of the Board of Directors, the Member-Secretary shoulders the responsibilities of selecting the candidates for various courses and conducting the Regular and the Special Courses with the collaboration of different wings of the Indian Statistical Institute and of the Central Statistical Organization of the Government of India. He also participates in the teaching programme.

The main purpose of the Centre is to provide regular and special courses in theoretical and applied statistics at various levels to selected participants from countries in the Middle-East, South and South-East Asia, the Far East and from the Commonwealth Countries in Africa. The regular course is of ten-month duration, starting from 1st August every year. Duration of special courses varies according to the needs of the trainees. Most of the candidates are officials from national statistical offices and other government departments or from financial and other business organizations. The Centre also provides facilities for research work and advanced studies to senior visiting statisticians from abroad.
Message from Chairman

I have accepted a sacred responsibility to preserve and promote the great tradition initiated by Professor P.C. Mahalanobis wherein India plays a significant role to strengthen the Statistical Systems in many less developed countries in Asia and Africa. I seek the co-operation and support of all concerned in expanding this engagement in both coverage and content. Given the commitment of the Indian Statistical Institute and the Ministry of Statistics & Programme Implementation, Government of India, I look forward to restore the partnership of the International Statistical Institute in the activities of the International Statistical Education Centre and I feel confident about a venture which will benefit many nations and will involve their representatives more actively to achieve its noble objectives. I strongly advocate ISEC becoming a platform for applied research projects and studies involving representatives of the participating countries as partners. Let ISEC flourish as a truly international centre for Education (and not just Training) in all aspects of Statistics and its fruitful applications.

S. P. Mukhejee
The educational programme of the International Statistical Education Centre (ISEC) is an outcome of the vision of Professor Prasanta Chandra Mahalanobis, Founder Director of the Indian Statistical Institute (ISI) and Prof. C.R. Rao, his immediate successor. After Prof. P. C. Mahalanobis and Prof. C. R. Rao, the ISEC programme is led by Prof. S. P. Mukherjee, the new Chairman of the ISEC Board of Directors and an internationally well known statistician. The Programme is run under the auspices of the Ministry of Statistics & Programme Implementation, Government of India. Celebration of the Diamond Jubilee in 2011, recollecting the glorious history of the programme, has further established the long term utility of the programme. Officials from many countries have benefitted from this programme. Efforts are on to further strengthen the programme, including offering more short term courses and increasing academic interactions with experts from different countries including participation in joint projects and consultancy. Links with different international organizations are being strengthened further so that more aspirants are benefitted from our programme. The Centre has shifted to Deshmukh Bhavan, a new building in the campus adjacent to the ISI campus, with all modern amenities ensuring international standard. ISEC faculty strength has also been enhanced with senior official statisticians so that satisfaction of all trainees increases.

The support and services that we get continuously from the Ministry of External Affairs (MEA) and the Ministry of Statistics and Programme Implementation (MOS & PI), Government of India for running this programme are very thankfully acknowledged. Fulfilling ISI mission in this context would not have been possible without their support and services. We also like to thank the Secretary of the MOS & PI, the Director General of Central Statistical Office (CSO) and the Directors of National Statistical Systems Training Academy (NSSTA) for their continuous support in making the programme successful. We are also very much thankful to different national and international sponsoring agencies.

Prasanta Pathak
Message from Programme Co-ordinator

I am pleased to be associated with the excellence, mission and vision of global statistical education and training of the International Statistical Education Centre (ISEC) for its historical magnitude, international statistical opportunities, challenges and commitment. The ISEC is an associate institution of the Indian Statistical Institute (ISI), an internationally acclaimed institution of national importance. The ISEC draws most of its teachers from the ISI and uses all ISI facilities, including library. Main purpose of the ISEC is to provide courses in theoretical and applied statistics at various levels to selected participants working with official statistics. The participants are from countries in the Middle-East, the South and the South-East Asia, the Far East and from the Commonwealth Countries of Africa. Earnest endeavour is made to run multidimensional courses systematically and effectively and to continuously engineer the programmes as per schedule ensuring high quality and cost-effectiveness. Planned and sustained effort of the ISEC is to look after its facilities and services so as to fulfill the expectations and the requirements of global participants and obtaining time to time their feedback so that the teachers and the participants get mutually benefitted.

I am sure that the ISEC will continue to play its glorious pivotal role significantly in the years to come under the ISI umbrella.

Ranjit Mandal
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1. INTRODUCTION

The International Statistical Education Centre (ISEC) was opened in 1950, and is currently run by the Indian Statistical Institute, under the auspices of the Government of India.

1.1 Objectives

The main purpose of the Centre is to provide courses in theoretical and applied statistics at various levels to selected participants from the countries of the Middle East, South and South-East Asia, the Far East, and the Commonwealth Countries of Africa. Candidates will usually belong to one of the following groups:

A – officials from national statistical offices and other government departments and from business organizations who have experience in statistical work;

B – teachers and research workers in Statistics from universities and other institutions;

C – officials in non-statistical fields, desiring to acquire knowledge in Statistics.

1.2 Courses

The Centre has been providing a Regular Course of training imparted over a term of 10 month duration. The first seven Terms were of six month duration and the next twelve Terms were of nine month duration. From the Twentieth Term, the nine-month course was replaced by a 10-month Regular Course with a revised curriculum providing greater emphasis on subjects of specialization.

In addition to the Regular Course, a few selected applicants are admitted on an individual basis for Special Courses of varying durations and in different subject-fields. Facilities for research work and advanced studies by senior visiting statisticians from abroad are also available at the Centre.

1.3 Teachers

The teaching at the Centre is undertaken by members of the staff of the Indian Statistical Institute, visiting teachers, and by experts in collaboration with the statistical offices of the various Ministries of the Government of India through the Ministry of Statistics and Programme Implementation and through such bodies as the Reserve Bank of India.
1.4 Teaching facilities

The teaching programme is arranged by collaboration between the Indian Statistical Institute and the Ministry of Statistics and Programme Implementation of the Government of India. All the facilities of the Indian Statistical Institute at Kolkata are made available to the Centre, including class-rooms, study rooms, a computation and data processing centre containing variety of equipment including electronic computers, and a library of more than 200,000 up-to-date volumes, past and current professional journals, and international and national reports from all over the world. The Centre is in close touch with all branches of work of the Indian Statistical Institute.

1.5 Number of participants

A limitation upon the number of enrolments in the Centre is placed in order to ensure adequate attention to the educational needs of individual participants. In previous years, about 20 candidates per year on an average have been admitted. They were selected from a large number of applicants from the following countries: Afghanistan, Australia, Bangladesh, Bhutan, Brunei, Cambodia, Cuba, Republic of China (Taiwan), Egypt, Ethiopia, Fiji Islands, Gambia, Georgia, Ghana, Grenada, Hong Kong, Indonesia, Iran, Iraq, Israel, Ivory Coast, Japan, Kazakhstan, Kenya, Republic of Korea, Laos, Liberia, Malaysia, Malawi, Maldives, Mali, Mauritius, Mongolia, Myanmar, Namibia, Nepal, New Zealand, Niger, Nigeria, Oman, Pakistan, Papua New Guinea, Peoples' Republic of China, Philippines, Sierra Leone, Seychelles, Singapore, Somalia, Republic of South Africa, Republic of Russia, Sri Lanka, St. Christopher and Nevis (W. Indies), St. Lucia (W. Indies), Sudan, Swaziland, Syria, Tanzania, Thailand, Tonga, Uganda, United Arab Emirates (Abu Dhabi), Uzbekistan, Vietnam, Western Samoa, Zambia.

The number of countries represented each year has been about ten in recent years. Given the ISEC objectives, candidates from the three stated groups in India are also encouraged to take part in the ISEC programmes.

The number of enrolments for which provision exists for the current year, for each type of course, is as follows:

- Regular Course: 25
- Special Courses: 20
- Visiting Senior Statisticians: 3

1.6 Expenses of participants

Participants must meet their costs for travel to, from and within India, and their living costs and other necessary items, with such assistance as may be needed from their governments or other sources. A course fee of amount (Indian) Rs. 750/- per week per trainee was introduced from the 59th term of the Regular Course and this has been raised at the level of Rs. 900 per week per trainee from the 69th term.
Living costs in Kolkata and also in India are now estimated at 25,000 Indian Rupees for one person per month, on an average; this sum should be available to participants in advance of the month of expenditure. Participants should also be provided with at most 5,000 Indian Rupees each for the purchase of books, which they can retain as the nucleus of a professional library upon returning to their countries. Adequate arrangements, moreover, should be made for providing financial support in managing exigencies and for the care of dependants at home.

1.7 Accommodation and hostel
Participants will be assisted in finding suitable living quarters in Kolkata. The Indian Statistical Institute maintains a hostel in the Institute premises in Kolkata in which seats will be reserved for students of the Centre. The monthly accommodation charge in the hostel is 1,500 Indian Rupees.

1.8 Training grants
In previous years, some candidates attending the Centre were being financially supported by their respective national governments. Others have availed themselves of fellowships or scholarships awarded by the United Nations and other international organizations like the Commonwealth Fund for Technical Co-operation, Asian Development Bank, etc., as also by the Government of India. Candidates who require such training grants should obtain the particulars from awarding authorities and make efforts sufficiently in advance with the help of their governments or employers to secure the grants. Information is given below about some of the training grants offered by the Government of India.

a. Government of India Training Grants under Indian Technical and Economic Co-operation (ITEC) Programme
Technical Assistance by Government of India is offered to developing countries, including neighboring countries, under the ISEC programme. Providing grants for training in India is one of the six components of the ITEC.

b. Government of India Training Grants under the Special Commonwealth African Assistance Plan (SCAAP)
The Government of India also offers a number of grants for training of foreigners in India under the Special Commonwealth African Assistance Plan (SCAAP). This is a programme of assistance meant for Commonwealth Countries in Africa. Classification of fellowships/scholarships, terms and conditions are similar to those of the Colombo Plan training grants, described in 1.8c. Only officially sponsored candidates are eligible for these training grants.

c. Government of India Colombo Plan Training Grants (TCS of Colombo Plan)
The authority of the Technical Cooperation Scheme (Colombo Plan) of the Government of India has transferred its activities to the administrative control of the Ministry of External Affairs, Government of India.
For detailed information, kindly visit the web site of the Ministry of External Affairs (MEA), Government of India at http://itec.mea.gov.in/. Information regarding these grants may also be obtained from the Indian Mission in each country.
2. REGULAR COURSE – Seventieth Term  
(August 2016 – May 2017)

2.1 Time schedule

The 70th Term of the Regular Course will commence on 1st August 2016 and continue till 31st May 2017. Participants are expected to arrive in Kolkata one week in advance, in order to make personal arrangements.

2.2 Qualifications

In view of the varying needs of countries in Asia, Africa and the Far East for training statisticians, the Centre has set only some minimum prerequisites for admission. Flexibility in the instruction provided ensures that candidates need not have knowledge of advanced mathematics, but they must have knowledge of mathematics up to what may be called the GCE O-Level. Proficiency in high school Mathematics, especially high school algebra is essential if the candidates wish to derive real benefit from the course.¹ They must also be able to follow classroom instruction in English and express themselves clearly through spoken and written English. Candidates should preferably be graduates, below 35 years of age, and having adequate statistical work experience. They should be alert and serious about their career in statistics and capable of assuming increased technical responsibilities on their return. They should, of course, be of good health and be certified fit to undertake training in a foreign country.

2.3 Plan of instruction

The Regular Course is currently conducted in four phases, which are outlined below:
Phase I (August to November): The participants are taught compulsory courses in preparatory Mathematics, theory and applications of Statistics (including Economic Statistics) and Data Processing, all at Indian Statistical Institute (ISI), Kolkata. Mathematics II and Probability II, though optional, are offered during the last two months of Phase I of the Regular Course, i.e., during the third and fourth months of the course (October and November) so that the trainees can follow the optional courses during mid-January to mid-March better.
Phase II (December): The trainees undergo training in Official Statistics conducted by the CSO, New Delhi. The last two weeks of this course are devoted to specialization in some topic of Official Statistics at appropriate offices in places like Delhi, Mumbai, Simla, Dehradun and Lucknow.
Phase III (from January to mid-March): The trainees study at least three from a variety of optional courses offered at ISI, Kolkata, in Mathematics, Economics and theory & applications of Statistics. Data Processing II is introduced as a compulsory course in this phase. Thus, the trainees are to take at least four courses including Data Processing II. All trainees will be involved in Project work in this phase.

¹ GCE Ordinary Level Mathematics syllabus includes topics like simultaneous linear equations, graphs of simple functions with easy applications, arithmetic and geometric progressions and use of logarithm.
2.4 Diploma on satisfactory accomplishment

Final examinations are held at the end of each of the four phases of the training programme. Periodical examinations may also be held during the course for assessment of progress by the students.

Candidates passing the examinations are awarded Statistical Training Diplomas. Candidates who satisfactorily attend and complete the course, but do not pass the examinations, are awarded Certificates of Attendance.

2.5 Curriculum

The curriculum for the Regular Course is given below under four groups corresponding to the four phases:

**Phase I: (All are compulsory except Mathematics II and Probability II)**

1. Mathematics I


2. Probability I


3. Descriptive Statistics I


4. Sample Survey I


5. Economic Statistics I


6. Economic Statistics II

Index Numbers: Definition of Index Numbers. Principles of Construction of Index Numbers with Particular Reference to Price Index Numbers. Types of Formulas: Aggregative Type and Weighted Average Type, Tests of Index Numbers: Time Reversal and Factor Reversal; Interpretation of Laspeyres’ and Paasche’s Price Index Number Formulae; Chain Index Numbers: Steps Involved in the Construction of Price Index Numbers; Shifting of Base; Splicing of Index Numbers; Some ideas about Consumer Price Index and Index of Industrial Production. Analysis of Time series: Definition of a Time Series: Four Components of a Time Series: Definitions of the Components; Decomposition of a Time Series – the Additive and Multiplicative Models. Determination of Trend: Curve Fitting; Moving Average Methods.

7. Statistical Methods I

8. Data Processing I

Fundamentals of Computers: Functional Units of a Computer, I/O Devices; Stored Program Concept; Operating System.


Programming in BASIC: Introduction to Programming, Flowcharting, Constants and Variables, Operators and Expression, Control Statement, I/O Statement, Arrays, Functions and Subroutines, File Handling, Numerical and Statistical Computations Using BASIC.

9. Mathematics II (optional)

Matrices and Determinants up to Order 3, Elements of Set Theory, Introduction to Differential and Integral calculus, Calculations with Approximate Numbers, Notion of Derivatives. Uses of Derivatives for Maxima and Minima, Integral as Limit of Sum.

10. Probability II (optional)


Phase II: (Compulsory)

Official Statistics, Systems and Procedures:

This part of the course offers the participants an opportunity to become acquainted with the basic concepts, definitions and classifications of all principal subjects of official statistics. The methods of data collection are also discussed, with particular reference to the conditions prevailing in developing countries. Conceptual problems are covered using the international standards recommended by the United Nations and other international agencies, as a basis. Emphasis is placed upon the development of an integrated system of economic and social statistics.

The curriculum will normally cover the following subjects, but the programme may be modified depending upon the specific needs of the trainees.

**Phase III:** *(All are optional except Data Processing II)*

(At least three courses out of the following set of optional courses are to be chosen by a trainee. All trainees will be involved in project work.)

1. Descriptive Statistics II

Concepts of Frequency Curves; Moments and Measures of Skewness and Kurtosis; Fitting Binomial, Poisson and Normal Distributions (including $\chi^2$ test of goodness of fit). Rank Correlations; Kendall’s and Spearman’s Coefficients. Introduction to Multiple Regression Analysis and Uses of Transformation of Variables for Non-linear Regressions; Uses of Computer Packages; Analysis of Residuals.

2. Sample Survey II


3. Statistical Methods II


Introduction to the Following Topics:

(i) Design of Experiments – Basic Principles, Randomized Block Design, Latin Square Design.

(ii) Nonparametric Methods – One-and Two-sample Location Problems.

4. Economic Statistics III


5. Demography

Scope and Importance of Demography. Data Sources and Their Limitations: Population Census, Vital Registration, Population Register, Demographic and Health Surveys, Other Sources. Evaluation and Adjustment of Census and Survey Data on Age-Sex distribution.

Growth of Human Population: Rate of Natural Increase, Arithmetic, Geometric and Exponential Growths.
International Statistical Classification of Diseases, Injuries and Causes of Death. Measures Based on Diseases (i.e., Morbidity), Death (i.e., Mortality) and Birth (i.e., Fertility) Statistics Including Measures such as Gross and Net Reproduction Rate, Mean Length of Generation, and Census Measures of Fertility. Life Tables: Definition, Simple Construction and Applications. Concept of Migration.

6. Statistical Quality Control

Concept, Measurement and Control of Quality. Seven Tools of Quality Control. Control Charts- Concepts of Control Charts, $\bar{X}$-R, p, np, and c Charts. Interpretation of Control charts. Acceptance Sampling – Inspection by Attributes, Operating Characteristic (OC) Curve, Producer’s and Consumer’s Risks, Acceptable Quality Level (AQL), Lot Tolerance Percent Defective (LTPD), Average Amount of Inspection (AOI), Average Outgoing Quality Limit (AOQL), Indifference Quality Level (IQL), Single and Double Sampling Plans.

7. Operations Research


8. Data Processing II (compulsory)

Basic Concepts of Network, Telnet, FTP, File Access from Remote Machine, E-mail, Internet Concepts, HTML, Web Authoring. Use of Statistical Software Packages.

9. Economic Theory


10. Economic Development and Planning


Phase IV: (Specialization)
(One of the following courses is to be chosen by the trainee. Project reports are to be presented in this phase.)

1. Large Scale Sample Surveys
Sampling Theory: Detailed study of basic concepts and definitions, simple random sampling, probability proportional to size sampling, systematic sampling, stratified sampling, multi-stage sampling. Estimation of total, mean, proportion and of margin of error, confidence intervals, the method of ratio estimation, non-sampling errors and the use of interpenetrating sub-samples, cluster sampling, self-weighting designs. Pilot surveys and use of cost and variance functions. Examples of composite designs suited to some specific surveys.
Sample Designing and Work Programme: Formulation of objectives of the surveys, broad tabulation plan, use of previous census and survey information and available resources, study of sampling frames, choice of sampling designs, selection and estimation procedures, determination of sample size, design effect, study of time records, programme of survey work, sample selection, preparation of listing schedules and instructions.
Preparation of Questionnaires, Instructions and Tabulation Plan: Item coverage, concepts and definitions and procedures of data collection, try-out of schedules, use of built-in checks, detailed tabulation plan, preparation of instructions. Open, closed and partially closed items, hard and soft items, filter questions, skip instructions.
Field Work: Field organization, administrative set-up, selection and training of investigators, supervision of field work, field scrutiny.

Practical Training for imparting first-hand experience in the above topics through a suitable Pilot Survey on contemporary topics to be conducted by the participants.
Data Processing using available computer softwares, Scrutiny, Editing, Coding, Computation etc. Non-sampling errors: Sources, assessment and control, coverage errors, errors due to non-response, response errors.
Special procedures for household income and expenditure surveys, employment surveys, crop estimation surveys, factory surveys, etc.
2. Economic Planning

Statistics for Planning: Concepts and estimation of national income: estimation of components – sectoral distributions, distribution by factor shares and by expenditure categories (e.g., capital formation); data problems in different countries. Inter-industry transaction tables – problems of construction, national income estimation from the table. Estimation of important parameters, e.g., capital–output ratio, input–output coefficients etc. Techniques of planning: Use of input output tables. Demand analysis from time series and cross-section data: Engel elasticities – demand projections from Engel curves. Production functions. Elements of project evaluation.

3. Data Processing

Programming in COBOL/C: Structure of language, character set, data-names, constants, verbs, operators, syntax, expression, statements and paragraphs; concepts of data organization, level, qualifications of names, subscripts, table handling, sorting & searching and file handling. Concepts and use of RDBMS with emphasis on Statistical Data Processing.

4. Vital Statistics and Demography


5. Statistical Quality Control and Operations Research

Quality Improvement: Meaning, link with productivity, quality costs, concepts of Total Quality Management.


Industrial Experimentation through project work: Concept, terminologies, data collection and analysis.

2.6 Training grants

For the Regular Course, some of the possible training grants are the following:

The Government of India offers a number of fellowships (see Section 1.8 a, b and c) to be awarded to selected candidates under the Indian Technical and Economic Cooperation (ITEC), the Special Commonwealth African Assistance Plan (SCAAP), and the Technical Co-operation Scheme (Colombo Plan). Facilities under these fellowships are as follows.

1. Fares: Air passage from port of embarkation in the home country to Kolkata and back inclusive of road journey from Kolkata Airport to the place of training.
2. Living allowance: Rs. 25,000/- per month each.
3. Book allowance: Rs. 5000/- each for entire 10 month course.
4. Study trip expenses: More than Rs. 1 lakh per trainee is spent by the Institute on accommodation, conveyance, etc. for ‘Study Trip’ across India during 10 month training on behalf of different ministries of the GOI and external sponsors, which gets reimbursed by the sponsoring authorities.
5. The medical expenses, if any, are reimbursed in accordance with the rules in force and may cover hospitalization expenses only within certain limit subject to existing rules.

3. SPECIAL COURSES (Individual Basis)

3.1 Scope

For persons having some background in statistics already and having interest in specializing in some branches of statistics may not attend the Regular Course for full Term. There are facilities for Special Courses, offered on individual basis. Special Courses may also be offered to the candidates at lower levels. The duration of such courses is usually less than six months. A candidate can opt for such a course at any time of the year, provided he/she is sponsored with required financial support.

3.2 Subjects for specialization

Subjects in which such special courses are provided may be mathematical or non-mathematical, theoretical or applied. Some such subjects are: Sample Survey, Electronic Data Processing, Statistical Quality Control and Operations Research, Probability, Statistical Inference, Theory of Experimental Design, Demography and Vital Statistics, Economic Statistics, Econometrics and Economic Planning, Biometric Methods and Psychometric Methods. These courses may be offered through lectures and lecture-cum-practical sessions or through in-service training involving participation in on-going projects in some departments of the Indian Statistical Institute or at the Department of Statistics, Government of India or at other departments/wings of the Government of India. In addition to subjects mentioned above,
training may also be organized in subjects like Crop Estimation Surveys and Socio-economic Sample Surveys such as the ones conducted by the Indian National Sample Survey Organization, Presentation of Statistical Data (through tables, diagrams and reports) and Collection and Organization of Government Statistics relating to various fields like Population, Prices, National Income, Industrial Production, etc. A participant may also decide to do research work on a selected topic.

3.3 Training grants

The type of fellowship or scholarship, obtainable for candidates intending to take part in such courses, will depend on the candidate’s professional status in the home country and the level at which training will be given. The ISEC does not take any responsibility of arranging training grants for the candidates. The candidates may try to obtain grants from UNFPA, ADB, Commonwealth Secretariat, etc. for this purpose.

3.4 Course fee

A course fee of US $ 2,000 per month per trainee is charged for the Special Course. The course fee does not include to-and-fro airfare, internal travel costs, living allowances, etc. Besides, there are other charges such as local transport, accommodation, etc., which comprise US$ 1,500 per month per trainee excluding the living expenses, internal travel costs, etc. To-and-fro airfare, living expenses, internal travel costs, etc. are to be paid by the sponsoring agencies. The course fee and other charges, amounting to a total of US $ 3,500 per month per trainee, have to be transferred electronically to the bank account of the Indian Statistical Institute, Kolkata at least one month before the commencement of any special course.

4. VISITING SENIOR STATISTICIANS

Facilities also exist for a small number of senior statisticians and research workers from abroad to spend brief periods at the Centre for advanced studies in mathematical statistics, econometrics, problems of economic and social development, demography and vital statistics, national accounting and economic and social statistics, statistical quality control and operations research, sample surveys, biometry, psychometry or other statistical subjects. Only senior statisticians and research workers with established reputation in his/her field of study is eligible for these facilities. The period of study will normally vary from 3 to 6 months.

Candidates who come to the Centre for such work should enlist beforehand for any financial assistance that may be necessary.

5. APPLICATION PROCEDURE

All applications for admission to a Course and/or any Government of India Fellowship should be forwarded through the respective Indian Missions.

5.1 Admission

Regular Course and Special Course (Individual Basis)
All new applications for Regular Course are now required to be filled in at 
https://www.itecgoi.in/meaportal/registerApplicant by the applicants themselves. They can 
choose their own login email ID and create their login password, which would be used to keep 
them posted of the processing status. After a candidate has applied for a course, he/she must 
take a print out of the application and send it through the nominating ministry/organizations to 
the Indian Mission/ Post. Application for admission to Special Course should be made in 
prescribed form, given at the end of the Prospectus. One copy, together with a health certificate 
from a recognised medical officer should be forwarded through the concerned Indian Mission 
to the Ministry of External Affairs, Government of India and the other copy should be 
forwarded to the Member Secretary, Board of Directors, International Statistical Education 
Centre, C.D . Deshmukh Bhaban, 202, B.T. Road, Kolkata 700108, INDIA.

5.2 Application deadline

Applications for admission to the Regular Course must reach the above address not later than 
15th June in the year. Applications for admission to a Special Course should reach the above 
addresses at least four months in advance of the date from which a candidate proposes to start 
undergoing the course.

Visiting Senior Statisticians

Senior statisticians and research workers proposing to work at the Centre for brief periods 
need not fill out the application form for admission, but should address a letter to the 
Chairman, Board of Directors of the Centre, indicating educational attainments, professional 
experience, proposed research project, proposed duration of stay, kind of financial assistance, 
if any, command of English and/or other foreign languages, etc. Applications should be 
received at least six months before the date proposed for joining the Centre.

6. IMPORTANT INFORMATION FOR PROSPECTIVE TRAINEES

Note: Sponsoring authorities are urged to acquaint the candidates with the following items of 
information about the ISEC before forwarding the applications for admission. Further 
details about any specific item may be obtained on request.

The office of the Centre is housed in the Indian Statistical Institute, 202 Barrackpore Trunk 
Road, C.D. Deshmukh Bhawan, Kolkata 700 108, India.

Normal working hours of the Centre is from 10 a.m. to 6-30 p.m. (local time). The Centre is 
closed on all notified holidays (up to 17 days per year), Saturdays and Sundays. The day-to-day 
activities of the Centre are carried out by a small number of staff, all of whom are employees of 
the Indian Statistical Institute and posted at the Centre, with Member-Secretary of the Board 
of Directors as its head.

All the facilities at Indian Statistical Institute are made available to the Centre and uses of such 
facilities are governed by the rules of the Indian Statistical Institute. It is the responsibility of a 
trainee to report to the Centre for training before August 1 in each year. Hostel accommodation
is made available from July 28, in each year. Approximate taxi fare from the Kolkata International Airport to the Centre is about 250 Indian Rupees. Destination should be stated either as “Indian Statistical Institute at Baranagar near Dunlop Bridge” or “Indian Statistical Institute Hostel Campus at Bonhooghly near Dunlop Bridge”. Airport pick-up free of charges, may be arranged if details of arrival are made known to the Centre through e-mail at least 10 days ahead of the arrival date.

The trainees are assisted in finding suitable living quarters in Kolkata if asked for. The Indian Statistical Institute maintains hostels at the Institute campus in Kolkata in which rooms are reserved for the ISEC trainees. Each room is for single occupancy and is moderately furnished. Each attached bathroom is shared by occupants of two adjacent rooms. Applicants who are not comfortable with sharing bathroom may not be provided alternative accommodation. Rooms are allotted on a first-come first-serve basis. Cooking is strictly prohibited in the rooms. Addiction to drug, alcohol, etc. is not allowed in the hostel. Rooms are rented on a monthly basis, currently at the rate of 1,500 Indian Rupees per month, which includes linen services. Visitors of opposite sex are not allowed in the rooms of the trainees.

The Indian Statistical Institute provides cooks and service boys to serve food primarily to the trainees of the Centre. There is no facility to cook or serve beef or pork. There is also no facility to cook food exclusively for vegetarians. Following the rules and the regulations of the hostels is compulsory for all trainees.

The trainees of the Centre are allowed to become members of the Indian Statistical Institute Library free of cost and they are treated as equivalent to the Indian Statistical Institute students for use of library facilities. The trainees may also become members of the Indian Statistical Institute Club and the Circulating library upon payment of yearly (January-December) subscription and admission fee.

The trainees are responsible for keeping their travel documents validated and to follow all immigration regulations. Trainees may seek assistance from the Centre in this regard.

Possession of foreign currency, without valid documents, is illegal in India. Foreign currency should be declared and the declaration should be certified by the Indian Customs at the time of entering into India.

Contact Details:

Telephone: (91) (33) 2575 2028/2027/2016 (during 10.30AM to 6.30PM)
E-mail: isec@isical.ac.in

Prof. Prasanta Pathak, Member-Secretary
Telephone: (91) (33) 2575-2028,2575-2024 (Off.)
Mobile No. +91 9903032682

Mr. Ranjit Mandal, Programme Coordinator
Telephone: (91) (33)2575-2027(Off.)
Mobile No. +91 9831658296

Dr. Biswabrata Pradhan, Warden, ISEC Hostel
Telephone: (91) (33)2575-3210(Off.), (91) (33)2578-0117 (Res.),
Mobile No. +91 9748858984
ANNEXURE I: List of Teachers (2014-15)

A) The staff members of the Indian Statistical Institute, the National Sample Survey Office and Universities in Kolkata.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Names of the Teachers</th>
<th>Sl. No.</th>
<th>Names of the Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arun Kr. Adhikary</td>
<td>13</td>
<td>Mrinal Bhaumik</td>
</tr>
<tr>
<td>2</td>
<td>Amiya Kr. Das</td>
<td>14</td>
<td>Nilachal Ray</td>
</tr>
<tr>
<td>3</td>
<td>Anup Dewanji</td>
<td>15</td>
<td>Prabir Chaudhury</td>
</tr>
<tr>
<td>4</td>
<td>Asit Chakraborty</td>
<td>16</td>
<td>Prasanta Pathak</td>
</tr>
<tr>
<td>5</td>
<td>Buddhadeb Ghosh</td>
<td>17</td>
<td>Ranjan Sett</td>
</tr>
<tr>
<td>6</td>
<td>Debasish Sengupta</td>
<td>18</td>
<td>Roma Choudhuri Sahoo</td>
</tr>
<tr>
<td>7</td>
<td>D.P. Mandal</td>
<td>19</td>
<td>R.N. Das</td>
</tr>
<tr>
<td>8</td>
<td>D.Mukhopadhyay</td>
<td>20</td>
<td>Sankar Dihider</td>
</tr>
<tr>
<td>9</td>
<td>Kajal Dihider</td>
<td>21</td>
<td>Satyabrata Pal</td>
</tr>
<tr>
<td>10</td>
<td>Kasturi Basu</td>
<td>22</td>
<td>Shibdas Bandyopadhyay</td>
</tr>
<tr>
<td>11</td>
<td>Kaushik Jana</td>
<td>23</td>
<td>Sedigheh Mirzaci</td>
</tr>
<tr>
<td>12</td>
<td>Manoranjan Pal</td>
<td>24</td>
<td>Tamaltaru Pal</td>
</tr>
</tbody>
</table>

B) The teachers from the National Statistical Systems Training Academy, the Central Statistical Office, New Delhi and other government departments.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Names of the Teachers</th>
<th>Sl. No.</th>
<th>Names of the Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Akhilesh Kumar</td>
<td>13</td>
<td>P.Swain</td>
</tr>
<tr>
<td>2</td>
<td>Amit Kamal</td>
<td>14</td>
<td>Rajendra Prasad</td>
</tr>
<tr>
<td>3</td>
<td>A.K.Mishra</td>
<td>15</td>
<td>Rakesh Kumar</td>
</tr>
<tr>
<td>4</td>
<td>Anil Phulwari</td>
<td>16</td>
<td>R.P.S.Rathore</td>
</tr>
<tr>
<td>5</td>
<td>Arun Kumar Yadav</td>
<td>17</td>
<td>Shashi Kumar</td>
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<tr>
<td>6</td>
<td>Debanjana Datta</td>
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<td>7</td>
<td>D.K.Ojha</td>
<td>19</td>
<td>Seema Jaggi</td>
</tr>
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<td>8</td>
<td>G.S.Lakshmi</td>
<td>20</td>
<td>S.S.Mishra</td>
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<td>9</td>
<td>G.S.N.Murthy</td>
<td>21</td>
<td>Sudhir Kumar</td>
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<td>10</td>
<td>J.K.Koul</td>
<td>22</td>
<td>T.V.Raman</td>
</tr>
<tr>
<td>11</td>
<td>Prof. Kalwani</td>
<td>23</td>
<td>U.C.Sud</td>
</tr>
<tr>
<td>12</td>
<td>Parimal Paria</td>
<td>24</td>
<td>Yogendra Singh</td>
</tr>
</tbody>
</table>
ANNEXURE II: Country wise Number of Officials Trained under the ISEC Regular Course in Last Ten Years

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Country</th>
<th>No. of Officials</th>
<th>Sl. No.</th>
<th>Country</th>
<th>No. of Officials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Afghanistan</td>
<td>20</td>
<td>20</td>
<td>Maldives</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Bangladesh</td>
<td>5</td>
<td>21</td>
<td>Namibia</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Bhutan</td>
<td>2</td>
<td>22</td>
<td>Niger</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Cambodia</td>
<td>2</td>
<td>23</td>
<td>Nigeria</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Cuba</td>
<td>2</td>
<td>24</td>
<td>Oman</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Ethiopia</td>
<td>1</td>
<td>25</td>
<td>Papua New Guinea</td>
<td>25</td>
</tr>
<tr>
<td>7</td>
<td>Fiji</td>
<td>4</td>
<td>26</td>
<td>Russia</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Gambia</td>
<td>8</td>
<td>27</td>
<td>Senegal</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>Georgia</td>
<td>1</td>
<td>28</td>
<td>Seychelles</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>Ghana</td>
<td>2</td>
<td>29</td>
<td>Sri Lanka</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Grenada</td>
<td>2</td>
<td>30</td>
<td>Tanzania</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Indonesia</td>
<td>1</td>
<td>31</td>
<td>Thailand</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>Iran</td>
<td>4</td>
<td>32</td>
<td>Togo</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Ivory Coast</td>
<td>3</td>
<td>33</td>
<td>Tonga</td>
<td>2</td>
</tr>
<tr>
<td>15</td>
<td>Laos</td>
<td>2</td>
<td>34</td>
<td>Uganda</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>Mali</td>
<td>1</td>
<td>35</td>
<td>Uzbekistan</td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td>Mauritius</td>
<td>21</td>
<td>36</td>
<td>Vietnam</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>Mongolia</td>
<td>28</td>
<td>37</td>
<td>Zambia</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>Myanmar</td>
<td>1</td>
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</tbody>
</table>
ANNEXURE III: Application Form

INTERNATIONAL STATISTICAL EDUCATION CENTRE
KOLKATA

APPLICATION FORM FOR ADMISSION

APPLICATION PROCEDURE

This form is to be used for application for admission to:
(a) the Regular Course or
(b) the Special Course

Application for admission to either of these courses should be made on the prescribed form for admission circulated together with this Prospectus. Each applicant should fill in two copies of the form. One copy, together with a health certificate from a recognized medical officer, should be forwarded through the concerned Indian Mission to

(i) the Member Secretary, Board of Directors, International Statistical Education Centre, 202 Barrackpore Trunk Road, Kolkata – 700 108, India.

and the other copy should be forwarded through the Indian Mission to


The form needs to be uploaded on the website of Ministry of External Affairs, Government of India (https://www.itecgoi.in/meaportal/registerApplicant)

Applications for admission to the Special Course should reach the above address at least four months in advance of the date from which the candidate proposes to start undergoing the course.

Note:

Application for all training grants should be taken up with the concerned funding agencies separately.

(a) Government of India Colombo Plan, ITEC and SCAAP Training Grants. Application forms and information regarding the terms of the training grants and necessary assistance in forwarding the applications can be obtained from the Indian Mission in each country.

(b) Training Grants from the Commonwealth Fund for Technical Cooperation (CFTC). Interested governments should contact CFTC, Commonwealth secretariat, Marlborough House, Pall Mall, London SW1Y 5HX.

(c) Applications for the Government of India training grants not participating in the
Colombo Plan Assistance Scheme, Aid to Sri Lanka, ITEC or SCAAP should be sent through the Indian Mission in the country and may be addressed to the concerned Ministry of the Government of India.
(Applicants should carefully read the Prospectus before filling in this form)

1. Course for which application is being made (delete what is not applicable)
   REGULAR COURSE (August-May).
   SPECIAL COURSE in (mention field of study) .................................................................
   From ............................................. to .................................................................

2. Full name (in block letters): .................................................................

3. Designation and official address (with e-mail address if any): .................................................................

4. Permanent address (in home country, with email address if any):


10. Education*:

<table>
<thead>
<tr>
<th>Years from – to</th>
<th>School, university or other institution</th>
<th>Certificate, diploma or degree obtained</th>
<th>Main subjects studied</th>
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<tbody>
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</tbody>
</table>

* Attested copies of all mark sheets should be enclosed.
11. Experience in statistical work:

<table>
<thead>
<tr>
<th>years (from – to)</th>
<th>description of duties</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

12. Expected future assignment, if any:

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13. Brief indication of knowledge in:

Economics

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…………………………………………………………………………………………………………………………

Mathematics*

…………………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………………

Statistics

…………………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………………

14. Languages*: can  Read…………………………………………………………
   Write…………………………………………………………
   Speak…………………………………………………………

15. State briefly arrangements made by your office or yourself for obtaining leave of absence and financial assistance:

…………………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………………

16. Whether a training grant is needed: yes/no

17. Have you made applications to any funding agency for a training scholarship? yes/no
   If your answer is ‘yes’, mention which agency.

* Section 2.2 of the Prospectus indicates that the knowledge of Mathematics is expected of the candidates. Proficiency in high school algebra is essential. A good working knowledge of the English language is also a pre-requisite for admission.
18. State if assistance in arranging accommodation is required

(A limited number of seats will be reserved for foreign trainees in Indian Statistical Institute’s Hostel in Kolkata. Trainees may also make their own arrangements in Kolkata city.)

(a) In a hostel in Kolkata maintained by the Indian Statistical Institute: yes/no

(b) In a hotel in Kolkata: yes/no

19. Names, positions and addresses of persons who are capable of giving information on your qualifications:

………………………………………………………………………………………………
………………………………………………………………………………………………
………………………………………………………………………………………………
………………………………………………………………………………………………
………………………………………………………………………………………………
………………………………………………………………………………………………

20. State if a health certificate is enclosed with this application: yes/no

Date: Signature of applicant:

Recommendations or remarks by sponsoring authority:

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………………………………………………………………………………………………

Date: Signature:
Designation and official address (with Seal)

………………………………………………………………………………………………
………………………………………………………………………………………………
………………………………………………………………………………………………
Prof. P. C. Mahalanobis meets 1972 batch of ISEC Trainees after awarding them certificates

Afghan trainees in the valedictory programme of a special course in 2015
2013 batch of ISEC trainees attending convocation

ISEC trainee participating in ISI Annual Sports

Design, photo and print by Repro and Photo Unit, ISI, Kolkata