

## INDIAN STATISTICAL INSTITUTE

11. --- : Classification : A synergiser of information activities. DRTC Annual Seminar. 21 ; 1984 ; paper CC.
12. --- : Knowledge and skills needed by information scientists for media selection for information service products. DRTC Annual Seminar. 21 ; 1984 ; paper EM,
13. --- : Components of information science : A case study with ARIST Coverage. DRTC Annual Seminar. 21 ; 1984 ; paper FB.
14. --- : Components of information science : A citation analysis. DRTC Annual Seminar. 21 ; 1984 ; paper FC.
15. --- : Identification of areas and programmes for continuing education for librarians in India. Presented at the Seminar on Continuing Education for Librarians. New Delhi, 13 February, 1984.
16. --- : An analysis of changes needed in curriculum of Master's Degree Programmes in library and information science in Indian Universities. Presented at the Seminar of the Department of Library Science, Bangalore University, 23 March, 1984.
17. --- : Methods of keeping abreast with information user needs. Presented at DESIDOC Seminar on Information Studies, New Delhi, 31 December, 1983.
18. Rao Ravichandra, I. K. : Library automation. Working document prepared for the DRTC Refresher Seminar, Bangalore, 14-16 November, 1983.
19. --- : Computer applications to library and information science in India. Presented at the 29th All India Library Conference, Mysore, 5-9 December, 1983. (Published in Fifty years of librarianship in India, Past, Present and Future", 1983, p. 429-450).
20. --- : Measures for library evaluation. Presented at the Seminar on "Library Information Objectives", Kuala Lumpur, 5-6 March, 1984.
21. --- : Two essential components of information science : Quantitative Methods and automation. DRTC Annual Seminar. 21 ; 1984 ; paper EA.
22. Seetharama, S. : Towards a methodology for information consolidation. Presented at the Third Meeting on UNISIST Working Group on Information Analysis and Consolidation. Kuala Lumpur, 12-16 September, 1983.
23. --- : Budgeting in health science libraries. Presented at the National Workshop on Standards for Health Science Libraries in India, New Delhi, 28-30 October, 1983.

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24. ——— : Information analysis and consolidation in non-R&D Contexts. Presented at the IASLIC Seminar, New Delhi, 26-29 December, 1983.
25. ——— : Decision making in libraries and information centres : Role of management techniques. DRTC Annual Seminar, 21 ; 1984 ; paper EG.
26. ——— : Knowledge and skill required in the creation of information analysis and consolidation products. DRTC Annual Seminar, 21 ; 1984 ; paper CD.

### G. Statistical Quality Control

1. Nankana, A. N. : 'Process Control for improvement of Quality & Economy'. Presented at XIth National Congress of Quality Control at Mexico during October, 1983.
2. Rao Anantha, R. : 'A New Statistical Technique for Process Control'. Presented in the Second Asia Pacific Conference on Quality Control held in Mexico during October, 1983.
3. Rajendra Prasad, V. : 'Two-machine  $n$  job Stochastic flow shop scheduling problem : Dynamic Programming Approach'. Presented in Regional Conference on Statistics and Probability held at ISI, Delhi Centre during 12-14 December, 1983.
4. Setty, C. A. : 'India and Quality Circles'. Presented in the Second Asia Pacific Conference on Quality Control held in Mexico during October, 1983.
5. Venkatappaiah, J. (with Rau, R. A.) : 'Impact of Specifications on Product Quality'. Presented to the Second Asia Pacific Conference on Quality Control held in Mexico in October, 1983.
6. ——— (with Ranga Rao, N.T.V.) : 'Procurement quality—Some Case Studies'. Submitted to the IV National Convention of IAQR at Trivandrum during December, 1983.

## 5.4 BOOKS PUBLISHED

### A. Theoretical Statistics and Mathematics

1. Srivastava, S. M. : Lectures in descriptive set theory. Mimeographed Lecture Notes, Centre for Advanced Studies in Mathematics, Bombay University, (in press).
2. Parthasarathy, K. R. : Vedéniye vy Teoriyu Veroyatnostei i Teoriyu Mery (Introduction to theory of probability and measure) Russian Translation, Mir Publishers, Moscow (1983).

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3. Prakash Rao, B.L.S. : Nonparametric Functional Estimation. Academic Press, New York (1983).
4. — : Parametric Estimation for Stochastic Processes by Yu. A. Kutoyans. Translated and edited by B.L.S. Prakasa Rao (Heldermann-Verlag, 1984) (in press).

### B. Physical and Earth Sciences

#### 1. Physics

1. Gupta, A. B. : Modern Physics, Vol. 1, Atomic Physics. Book Home, 32, College Row, Calcutta, pp. 300 (1984).

#### 2. Electronics and Communication Sciences

2. Pal, S. K. (with Dutta Majumder, D.) : Fuzzy mathematical approach in pattern recognition. Wiley Eastern, New Delhi, (in press).

### C. Biological Sciences

#### 1. Botany

1. Roy, S. K. (Ed) : Frontiers of Research in Agriculture : Proceedings of the Indian Statistical Institute Golden Jubilee International Conference, Calcutta, September 27 to October 1, 1982 ; XIII + 667 pages, 5 plates. (1983).

### D. Social Sciences

#### 1. Sociology

1. Chatterji, Bhola. : Conflict in JP's Politics. Ankur Publishing House, New Delhi, (1984)
2. Chakrabarti, Prafulla. : Social profile of Tarakeswar, Study of a Pilgrim town in West Bengal. Firma K. L. Mukhopadhyay, Calcutta, (in press).

#### 2. Economic Research

1. Sengupta, Arun (with Ghosh, Arnabika). Income distribution and production structure. Published by South Asian Publishers, New Delhi, December, 1983.

#### 3. Economic Analysts (Bangalore)

1. Economic Analysis Unit (with the Indian Econometric Society) : Twenty-second Indian Econometric Conference, Bangalore, January 2-4, 1984, Papers Vol. 1, (Mimeographed) pp. 525 + 14.

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2. Economic Analysis Unit (with the Indian Econometric Society) : Twentysecond Indian Econometric Conference, Bangalore, Vol. 2, (Mimeographed) pp.553 + 14.
3. Economic Analysis Unit: Selected Papers on Karnataka's Development. (Mimeographed) pp. 277. (Brought out on the occasion of the Sixty-sixth All-India Economic Conference (Dec. 28-30, 1983) and the Twenty-second Indian Econometric Conference, Jan. 2-4, (1984).

4. *Planning (Delhi)*

1. Partha N. Mukherjee : From Left Extremism to Electoral Politics, Monohar, pp. 193 (1983).

E. Documentation Research & Training

1. Ravichandra Rao, I. K. : Quantitative methods for library and information science. Wiley Eastern, New Delhi, 1983.

5.5 ARTICLES PUBLISHED IN BOOKS

A. Theoretical Statistics and Mathematics

1. Rao, T. J. (with Murthy, M. N.) : Systematic Sampling. New Developments in Statistics, Vol. 6, ed. C. R. Rao and P. R. Krishnaiah (in press).

B. Physical and Earth Sciences

1. *Electronics and Communication Sciences*

1. Dutta Majumder, D. : Fuzzy set theory and applications. In the book 'Algebra and its application' published by Marcel and Dekker, USA.

C. Biological Sciences

1. *Anthropometry and Human Genetics*

1. Basu, A. (with Gupta, R. and Mukhopadhyay, B.) : Anthropological demography of population of the eastern Himalaya. In The People of South Asia. T. R. Lukacs, Editor. Plenum Press, New York, (1984).
2. Mukherjee, B. N. (with Bandyopadhyay, Shibdas, Malhotra, K. C., Pakrasi, K., and Kate, S. L.) : Effect of Hb types and G.6-PD deficiency on the height weight and skinfolds of persons of various ages of three endogamous population of Maharashtra. In 'Recent Advances in Human Biology'. Today and Tomorrow publication, New Delhi, p. 18-23 (1983).

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3. Gupta, R. (with Das, S. K. and Bhattacharya, S.,K.) : Altitude and haematology among the Sherpas and Lepchas of eastern Himalaya. In Garcia de Orta, Serie Anthropobiologia, Edited by M. C. Santes Neto. II C. T., Lisbon Portugal (1984).

### D. Social Sciences

#### 1. Economic Research

1. Dutta, Bhaskar. : Further results on voting with veto. Published in Social Choice and Welfare, pp. 239-250 edited by M. Selles and P. K. Pattanaik, North-Holland Publishing Company (Amsterdam) (1983).

### E. Documentatton Research & Training

1. Bhattacharyya, G. : Relevance of Ranganathan's ideas in the context of modern developments. (Invited paper to be published in the Platinum Jubilee Volume of the Madras University Library, Ed by Dr. P. Mohanrajan).

## 5.6 TECHNICAL REPORTS

### A. Theoretical Statistics and Mathematics

1. Ramakrishnan, M. K. : Some Results on the Gini Ratio. 15 pages.

### B. Applied Statistics, Surveys & Computing

1. Bandyopadhyay, Shibdas. : Use of Hospital Data for population Health Policy Tech. Report No. ASC/83/3.
2. ——— : Motor Development of Bengali infants by nutritional status in the first year of life. (Joint Authorship) Tech. Report No. Anthro/2/83.
3. Bhimsankaram, P. (with Bagchi, Sunanda and Sinha, Bikas Kr.) : A note on the superadditivity of information matrices in Gauss-Markov Models.
4. Chowdhuri, Arijit. : Optimality of sampling strategies.
5. Das, B. C. : Pathogenesis of infectious diseases (ICMR Report 1983).
6. ——— : Report on Type Study in Ayodhya Hills (ICMR Report 1983).

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7. ——— : Why do we get old and role of food in the process and role and extent of genetic and environmental factors involved there.
8. Majumdar, Partha. P. (with Banerjee, D., Bharati, P. and Basu, A.) : Dietary status in Chakpota, Inter-and intra-economic group variations (*Tech. Report No. Anthro/2/84*).
9. Mukhopadhyay, A. C. (with Bagchi, Sunanda and Sinha, Bikas Kr.) : A search for optimal nested row column designs.
10. Roy, J. (with Majumder, Partha P.) : Choosing a subset of a variable for discrimination (*Tech. Report No. ASC/84/3*).
11. Yanai, Haruo (with Mukherjee, B. N.) : Canonical correlation analysis and redundancy. (*Tech. Report No. ASC/84/1*).
12. ——— : A Generalised method of image analysis from an inter correlation matrix which may be singular (*Tech. Report No. ASC/84/2*).

### C. Biological Sciences

#### 1. Anthropometry and Human Genetics

1. Basu, A. (with Roy, S. K., Bharati, P. and Gupta, R.) : Sherpa body dimensions further studies on altitudinal and sociocultural effects. *ISI Tech. Report No. Anthro/1/84*. 10 pages Cyclostyled (1984).
2. Gupta, R. (with Das, S. K. and Bhattacharya, S. K.) : Altitude and haematology among the Sherpas and Lepchas of eastern Himalaya. *ISI Tech. Report No. Anthro/1/83*. 14 pages cyclostyled, (1983).
3. Pakrasi, Kanti (with Bandyopadhyay, S., Sil, S., Banerjee, J. and Banerjee, A. R.) Motor Development of Bengali infants by Nutritional Status in the First year of Life. *ISI Tech. Report No. Anthro/2/83*. October, 20, 1983 (memiographed).

### D. Social Sciences

#### 1. Demography

1. Dutta, Pranati : Occupation distribution and its mobility in rural areas of Bengal. (DRU Publication Number 48).

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2. Dutta, S. K. : A Pilot study on the effect of child mortality and fertility. (DRU Publication Number 46).
3. Ghosal, A. K. (with Sarkar, B. N.) : Impact of family planning on fertility reduction in West Bengal. (DRU Publication Number 50).
4. Mitra, Subir (with Das, C. R.) : Study on cohort data on primary education and their social indicators. (DRU Publication Number 49).
5. Ramani, M. V. : Adolescent fertility in the Indian context. (DRU Publication Number 44).
6. Sarkar, B. N. : Indian demographic dimensions : Problems and prospects. (DRU Publication Number 43).
7. ---- : Enrolment age and measurement of literacy. (DRU Publication Number 45).
8. ---- : Education growth measurement problems. (DRU Publication Number 47).
9. ---- : Population welfare planning in rural areas of Bengal. (DRU Publication Number 51).
10. : Socio-demographic characteristics of eligible couples in rural areas around Patna. (DRU Publication Number 52).

### 2. Economic Research

1. Bandyopadhyay, Debdas (with Majumdar, K. C.) : Model for the study of "Taxation income distribution and growth : An analysis in input-output planning frame". (No. ERU/14(a)/83).
2. Chakraborty, S. R. : On extension of the Gini indices of inequality Gini. (No. ERU/13/83).
3. ---- : Ethically flexible indices of horizontal inequality. (No. ERU/14/83).
4. ---- : Normative indices for measuring social mobility. (No. ERU/18/83).
5. ---- : Two results on Theil's entropy measure of inequality. (No. ERU/21/83).
6. ---- (with Chakraborty, A. B.) : On indices of relative deprivation. (No. ERU/16/83).
7. Datta, Bhaskar : Non-Cooperative implementation and sample-sharing method of public project selection. (No. ERU/15/83).

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8. Majumdar, Amita : Consumer expenditure pattern in India : A comparison of almost ideal demand system and the linear expenditure system. (No. ERU/17/83).
9. Panda, Monoj K. (with Majumdar K. C.) : Intertemporal consistency and sixth plan model of India. (No. ERU/19/83).
10. Sarker, N. : A small-sample study on the performance of some two-step estimation methods with mis-specification of the autocorrelation process of the error. (No. ERU/20/83).
11. Sarker, S. : Lagrange multiplier test for testing for general autoregressive against general moving average disturbances in linear regression model. (No. ERU/D/10/83).

### 3. Economic Analysis

1. Iyengar, N. S. : Note on the use of discriminant analysis in poverty identification (Mimeo). Sent to the Planning Commission, Working Group for Evolving an Acceptable Methodology for Identification of the Poor, for its meeting on September 8, 1983.

### 4. Sociology

1. Bandyopadhyay, S (with Ramachandra Rao, A.) : Reciprocity in a village social network : Graph theoretic analysis using survey data. (Cyclostyled).
2. ——— : "On the UNRISD paper—Popular Participation programme by Brune Jobert." (Discussion paper).
3. Chakrabarty, Prafulla. : Report of pre-Pilot survey : Bero village, Purulia. (Typed, pp. 1-50).
4. Chattopadhyay, Kumarananda : A preliminary report of a pilot-enquiry on the social ecology of Sundarban. (Cyclostyled).
5. ——— : Palamau survey : A provisional report (Cyclostyled).

### 5. National Income Research

1. Majumdar, K. C. (with Mazumdar, Krishna and Paul, Manabendra) : Variation of national income with components of generalized capital. *Tech. Report No. NIRU/3/83*, November, 1983.
2. Roy, Bina (with Gupta, Swagata) (1983) : Capital formation in West Bengal : Related problems of Estimation. *Tech. Report No. NIRU/1/83*, November, 1983.



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- Roy, Bina (with Majumdar, K. C. and Datta, Pranati): A study on the estimation of different Macro-Economic Aggregates and the growth of the economy of West Bengal. *Tech. Report No. NIRU/2/83*, November, 1983.

### 6. *Pre-census Population and Studies*

- Bhattacharya, Durgaprasad : Glimpses on Population History of India. Mimeo. 17 p.
- : Scientific writings in some major Indian languages in the 19th century. Mimeo. 18 p.
- Deb Roy, Rama : The great trigonometrical survey of India in a historical perspective. Mimeo. 24 p.

### E. Statistical Quality Control

- Course note for top management programme at Indian Rayon corporation. SQC Unit, Baroda.
- Course note for introductory course at Indian Rayon Corporation, SQC Unit, Baroda.
- Course manual on 'SQC' for the course held in December, 1983, SQC Unit, Bombay.
- Course manual on 'Orthogonal Array Experimentation' for the course held in January, 1984, SQC Unit, Bombay.
- Course manual on 'Quality Control' for the Operative Training Programme for Fertiliser Plant (in Malayalam Language) by V. N. Iyer, SQC Unit, Trivandrum.
- Technical report on 'Simulation of Accumulating Analysis' by A. Seth, SQC Unit, Delhi.
- Course manual on 'Quality Improvement Programme' for Bajaj Auto Co. Ltd., Pune (Produced in nine volumes) SQC Unit, Pune.
- Course manual on SQC for Rieco, Roha for Quality Improvement Programme, SQC Unit, Pune.
- Course manual on 'SQC' for Morris Electronic Ltd., Pune, SQC Unit, Pune.

### Part II. Convocation, Visiting Scientists, Honours and Awards, Scientific Tours and Assignment

#### 6. *Eighteenth Convocation*

The Eighteenth Convocation of the Indian Statistical Institute, held on 21 January, 1984 was presided over by Shri Subimal Dutt, President of the Institute. Professor

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Paul Erdos, Mathematical Institute, Hungarian Academy of Sciences, delivered the Convocation Address. Dr. A. Maitra, Officiating Director of the Institute, presented the annual review of research, teaching and training.

The number of candidates awarded Ph.D., M.Tech., M.Stat. and B.Stat. (Hons.) Degrees, Statistician's Diploma and Post-Graduate Diploma in Applied Statistics and Diploma in Professional Examination in Statistics is given below :

I. Number of Candidates Receiving Degrees and Diplomas

Degrees/Diplomas	Number of candidates.
Doctor of Philosophy (Ph.D.)	9
Master of Technology in Computer Science (M.Tech.)	7
Master of Statistics (M.Stat.)	25
Bachelor of Statistics (Honours) (B.Stat., Hons.)	11
Post-Graduate Diplomas in Applied Statistics :	
(i) Advanced Diploma in Computer Science, Calcutta	1
(ii) Diploma in Computer Science, Calcutta	1
(iii) Statistical Quality Control and Operations Research, Calcutta	6
(iv) Statistical Quality Control and Operations Research, Delhi	6
(v) Statistical Quality Control and Operations Research, Bombay	2
(vi) Statistical Quality Control and Operations Research, Madras	9
Professional Examinations in Statistics :	
(i) Junior Diploma in Statistics	1
Total	78

*Annual Review by Dr. A. Maitra, Officiating Director*

Mr. President, Professor Erdős, Distinguished Guests, Ladies and Gentlemen :

I have great pleasure in presenting to you a brief report on the activities of the Indian Statistical Institute during the past year.

I shall not go into the details of continuing research and training activities of the Institute which are described elsewhere in the report. Let me just mention a couple of points regarding our courses. The Institute believes in a periodic revision of its courses so that our graduates are better able to assimilate the ever-changing techniques of statistics. Accordingly, the Academic Council has constituted a committee to suggest modifications in the present curriculum of the Bachelor of Statistics course. Two years ago the Institute started the Master of Technology course in Computer Science. This convocation marks the graduation of the first batch of students of this course.

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The International Statistical Education Centre (ISEC) which is run by the Institute in collaboration with the International Statistical Institute is conducting its 37th term during the year. The Centre admitted 27 trainees from 13 countries in South and South-East Asia the Middle and Far East, and the Commonwealth countries of Africa during the year under review. Also, during the year, the ISEC course was reviewed by Professor J. Gani, Chairman, Education Committee, International Statistical Institute, as part of periodic assessments of the course made by the International Statistical Institute. Professor Gani has sent us his report. In brief, his evaluative judgement on the course as a whole was that it was an excellent statistical training course. He was highly appreciative of the commitment and dedication of the teachers and of the enormous magnitude of the contributions made by this Institute over the years to the improvement in the quality of statistical practice achieved in the Third World countries through ISEC-trained personnel. Professor Gani also made a number of suggestions aimed at further improving the course and the living conditions of the trainees. These recommendations are now under study by us.

The Institute has had a long and distinguished tradition of rendering assistance to the Planning Commission of the Government of India. During the year under review, the Planning Commission has entrusted the Institute with a major assignment in connection with the formulation of the Seventh Five Year Plan. A model of input-output analysis, currently being worked out at the Institute, will constitute an important element of the framework of the Seventh Plan. A second assignment of the Planning Commission has been to estimate the consumption of iron and steel in small-scale manufacturing industries. A survey has been carried out simultaneously in the Calcutta Metropolitan district and the Delhi-Faridabad region. The final report is now under preparation.

Two further collaborative efforts undertaken by the Institute deserve mention. The Geological Studies Unit has undertaken a programme of research in the glaciogenic Talchir rocks of India in collaboration with the University of Maine. The programme is jointly sponsored by the Institute and the National Science Foundation of the United States. The purpose is to make an in-depth study of the extensive glaciation of the Gondwana and continents during the Permian period and its bearing on the theory of plate tectonics. As was reported last year, anthropologists of the Institute in collaboration with their Soviet counterparts have embarked on a massive study to compare the numerous endogamous groups in various parts of this country. The year under review saw the completion of the third round of field work. The field work was carried out in the four states of South India. The data collected are now being analysed. Two further rounds are contemplated, at the end of which a very comprehensive picture should emerge.

The Institute has always been able to attract a large number of eminent scholars from abroad each year. These scholars participate in the research and training activities of the Institute, help our scientists keep abreast of the latest developments in their fields, and enable them to measure the quality of their work by the yardstick of international standards. The year under review proved no exception. Elsewhere in

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the report, you will find a list of scientists who visited the Institute during the year. I make special mention here of the visits of the renowned econometrician and Nobel Prize winner, Professor L. R. Klein of the Wharton School of Business, of Professor P. A. Mayer, the well-known probabilist and member of the French Academy of Sciences, and of the noted number-theorist, Professor Heini Halberstan of the University of Illinois at Urbana. The Institute participated as usual in Scientific Exchange Programmes with a number of countries. An agreement on cooperation was signed between the Institute and the Mathematical Institute of the Czechoslovak Academy of Sciences. The agreement envisages exchange of knowledge and experience in the fields of Statistics, Mathematics and Computer Science. This agreement will greatly strengthen the already existing Cultural and Educational exchanges between Czechoslovakia and India and will facilitate exchange of scholars between the two Institutes.

The year marked the inauguration of the Mahalanobis Memorial Lectures. These lectures will be held every other year. The first series of lectures were delivered by Professor Samuel Karlin, the well known probabilist, statistician and bi-mathematician from Stanford University. The central themes of Professor Karlin's lectures were the application of statistical techniques to and the construction of mathematical models for problems in the theory of evolution and genetics.

Two important conferences were held in the Institute during the year under review. The Indian Statistical Institute and the Bernoulli Society for Mathematical Statistics and Probability of the International Statistical Institute jointly organised a Conference on Probability and Statistics at the Delhi campus of the Institute. The conference drew a number of participants from both this country and abroad. Some of the delegates stayed back to give lectures at the Institute. The ISI and the Bureau of Applied Economics and Statistics, Government of West Bengal, jointly sponsored the 14th General Conference of the Indian Association for Research in National Income and Wealth. The conference, held at the Calcutta campus of the Institute, was inaugurated by the Chief Minister, Mr. Jyoti Basu.

A new departure this year has been the organization by the applied statisticians of the Institute of a Data Analysis Workshop for the Life Sciences. The aim of the Workshop is to analyse live data originating in problems on which the participating biologists have worked. It is hoped that in the process not only will the biologists benefit from having their data analysed by competent statisticians but also that our statisticians will develop new techniques out of their experience of dealing with live data. As far as I am aware, this is the first time a Workshop of this kind is being held in this country.

The past year brought academic distinctions to members of the Institute. It is a matter of great pride that Professor B. L. S. Prakasa Rao won the S. S. Dhatnagar Award in the Mathematical Sciences. Previous recipients in the Institute of this highest scientific award of this country are Professor C. R. Rao, K. R. Paribasarithy and J. K. Ghosh. Dr. Rajendra Bhatia, a distinguished alumnus of the Institute, secured the Young Scientists' Award of the Indian National Science Academy.

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The Second ISI Review Committee was constituted by the Government of India under the Chairmanship of the noted economist Dr. S. R. Sen in accordance with the provisions of the ISI Act 1959. The Committee was asked by Government to review and evaluate the work done by the Institute and also address itself to the following questions of vital importance to the subsequent development of the Institute :

1. To what extent and in what manner should the research activities of the Institute be continued or medified in areas other than the development of statistical theory and its applications ?
2. What should be the liability of Government to finance the activities of the Institute ?
3. In what ways could the Institute generate funds for its own support ?
4. Whether the audit of the accounts of the Institute should be entrusted solely to the Auditor and Comptroller General of India ?

The Review Committee filed its report with Government in August 1983.

I wish to report to you the main findings of the Review Committee. The Committee has unequivocally recognised the status of ISI as an advanced Institute of research and training, with a worldwide reputation, in statistics and related fields. Evaluating the quality of work in the core subjects of the Institute, the Committee remarked that the list of publications during the period under review was impressive, that some of the papers were truly path-breaking and that by and large the research output was of high quality. The Committee upheld the multidisciplinary nature of the Institute and endorsed Professor Mahalanobis' conviction that statistics could only develop through intimate contacts with the natural and social sciences. The Committee thus emphatically reaffirmed that research in branches of science other than statistics and mathematics should continue to be an integral part of the activities of the Institute. The Committee further recommended that the academic work of the Institute should continue to be financed entirely by Government and that the Institute should not be asked to change its academic character with a view to reducing its reliance on the public exchequer. The Committee was also of the view that the present arrangements with respect to the audit of the accounts of the Institute could continue and that no change in the ISI Act was needed in this respect. The Committee made recommendations regarding the reorganisation of units in the Institute with the purpose of bringing scientists working in closely related fields together. The Committee strongly recommended that auxiliary facilities in the Institute in terms of office space, housing etc, be expanded on a large scale and stressed the need for provision by Government of funds for the construction of more faculty quarters. In its view additional housing so created would make it possible for the ISI to attract brilliant scholars from other parts of India as well as Indian scientists now working abroad. At a subsequent meeting the Council of the Institute will deliberate on the report of the Review Committee and decide on a procedure to process the recommendations.

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Let me now turn briefly to matters administrative. Construction activities have proceeded apace. The construction of 48 units of low paid staff quarters at Calcutta is nearing completion. Work on 16 units of faculty quarters at Calcutta has started and should be completed before the end of this year. Similar construction in Delhi is also nearing completion. In Bangalore the academic block will be ready for occupation in a couple of months. Proper accommodation for the Medical Welfare Unit at Calcutta has been a long felt need. When it was started the Medical Welfare Unit was housed in a temporary quarters, creating a lot of inconvenience for the users. I am happy to announce that Government has approved the proposal of the Institute for construction of a new building for housing the Medical Welfare Unit. Funds for the construction will be released to us in the next financial year.

In conclusion may I take this opportunity of recording my gratitude to Mr. Subimal Dutt, President of the Institute and Mr. P. N. Haksar, Chairman of the Institute for their counsel and guidance. I should also like to thank our Dean of Studies, Mr. A. K. Adhikari, for attending to the numerous details associated with organising this convocation. I wish to thank Professor Nikhilesh Bhattacharya for the untiring zeal with which he has guided ISEC to its present level of excellence. I also wish to record here my deep appreciation of the cooperation I have received from all sections of workers of the Institute.

*Convocation Address by Professor Paul Erdős, Mathematical Institute, Hungarian Academy of Sciences, Budapest, Hungary.*

Mr. President, Director and Ladies and Gentlemen :

On this occasion I shall certainly speak a certain amount about myself. Since I am now over 70, I am not sure I shall have many more opportunities to do so and also I am not sure how long my mind and memory will remain intact. Fortunately, so far it has been intact.

I first came to India about 20 years ago ; I was in Chandigarh in 1965. It is my habit to learn two or three words in each language—I am not particularly interested in learning languages though my memory is good but I wanted to learn two most important words which are "old" and "stupid". I found out to my pleasure that Hindi is the best language in the world, because the two words sound almost the same, namely—buddha and buddhu. You will excuse my poor pronunciation. Probably if you pronounce them correctly that they would probably not sound so similar.

Now let me talk about myself and how I became a mathematician and what my life style is. Let me start with the question I am often asked "What will you do when you retire?" I always answer, "I can't retire since I have been born retired." That is not as wrong as it sounds because I actually never had an ordinary job. I travelled the world practically all my life. When I am asked "When will you settle down?" I have a very good answer, "There is plenty of time to settle down in the grave".

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Now let me tell you how I became a mathematician. I had the great advantage that my parents were both mathematicians. My mother was one of the first ladies to graduate from a Hungarian University. It became possible for women to enter Hungarian University in the year 1896 and she actually entered the University in 1900. Incidentally a curious thing is that my mother travelled with me many times and her first trip by an airplane was only in 1964 when she was 84 years old. We travelled more or less all around the globe. She went to Australia, Canada, the USA, England and many other countries. When I first came to India she was also to accompany me but on the advice of her doctor she decided not to do so.

Now let me tell you how I was very interested in child prodigies, for I was one myself. Perhaps, I should tell you how it became clear that I had the ability in mathematics. I was born in 1913 and my father was drafted during World War I, served in the Hungarian army; and my mother taught in a High School. So I was often left alone with the maid of the German governess. I, of course, often wanted to know when my mother would be home. I studied the calendar a great deal so that I knew months ahead when there would be a holiday and my mother would be at home.

By the time I was 4 years old I could multiply 3-digit number mentally. I always surprised people by asking them how old they were and telling them how many seconds they have lived. Perhaps my greater discovery was when I was 4 years old I told my mother that if we take away 250 from 100 we get 150 below zero. Actually, if I remember right, I told that in German. My interest in number theory started when I was about 10 years old when my father told me the proof, attributed to Euclid, of the fact that there are infinitely many primes and when he explained to me that there are arbitrarily long gaps between the prime numbers. To show that there are arbitrarily long gaps between the primes, all you have to notice is that if we take the numbers  $n! + 2, n! + 3, \dots, n! + n$ , these numbers are all composite, and hence there are  $n-1$  consecutive composite numbers. Since we can do that for every  $n$ , we can get arbitrarily long gaps between prime numbers. The exact study of the gaps between the prime numbers is one of the most difficult problems in number theory. I have the habit of offering money for problems and the largest amount of money I have to pay so far was \$1000 to my colleague Szemerédi who solved an old problem of Turán and myself. But I have a problem for which also there is a prize of \$10,000, on the difference of consecutive primes. But I do not expect that I will have to pay this. Since I do not have very much money, a friend of mine once asked what would happen if all my problems were suddenly solved. After a moment's thought I said of course I would not be able to pay. But that does not seem likely. Consider what would happen to the strongest bank in the world, if all the creditors suddenly asked for their money back? Clearly, the bank would be immediately ruined and I think it is much more likely that this will happen than that all my problems will suddenly be solved. So I think I am safe for the time being. I will not get ruined certainly not by all my problems getting solved.

Incidentally, problems in number theory in a way are particularly difficult. It is a joke which I sometimes play with mathematicians. I ask them, "Can you tell me

a problem which is not in number theory and which is more than 100 years old" ? It is actually not very easy to do so, whereas number theory is full of unsolved problems which even a baby can understand but the wisest man cannot solve, for example, just to mention two such problems. Is it true that every even number is the sum of two primes ? Is it true that there are infinitely many pairs of prime numbers differing by 2 ? I have published many unsolved problems in many subjects. For example, my collaborator Hajnal and I published about 17 years ago some problems in Set Theory. We published about 80 such problems and more than half of them have been solved since. This wouldn't be the case in number theory, that is, the time which passes until half the problems have been settled, is very long, in fact, it may be longer than the life time of the universe. So the problems in number theory are very difficult.

Actually my first paper was on Number Theory. This was on a theorem of Chebychev which states that for every  $n$ , there is always a prime between  $n$  and  $2n$ . This was actually the first time I heard of Ramanujan because I found out later that Ramanujan had also found a proof for this theorem which is comparable to mine in simplicity. During my career, there were other instances of my work being connected with his ; for example the birth of probabilistic number theory is connected with the work of Hardy and Ramanujan.

Now let us come to the question of what is needed to be a good mathematician. There is a saying attributed to Edison that genius is 99% perspiration and 1% inspiration. Now this is certainly not true in mathematics. You often don't have to work very hard in mathematics but what you need to have "your brain open". By that I mean you have to be receptive to new ideas when they come along and must be ready to interrupt any thing else you are doing and concentrate on the idea which you either get from your own mind or somebody else's. I applied this method successfully in proving an old theorem along with Katz. This was in March 1938, a quite long time ago and this sort of thing also happened since. I work very easily with others. I have more than 20 collaborators at present. There is a joke in this context that I actually have a joint paper with a rail-road conductor of Santa Fe. However, this is not true.

Now let me illustrate this idea of having your mind open with a story. It seems to be a true story, though I have not examined the original documents. There were two men, one whose mind was open and another whose mind was not open. Now there was Röntgen—the German physicist who discovered X-ray in the U. S., they are known as Röntgen rays. Röntgen in 1891 noticed by accident that if you leave a photographic plate near a Crook's tube then the photographic plate gets darkened. Now from this Röntgen somehow noticed that this must be an important phenomenon and for a few weeks he did not do anything else but work on this subject and those few weeks of course changed the world. After he finished work on X-rays, Röntgen rays were discovered for which a few years later he received the first Noble Prize in physics. These rays have immediate applications in medicine. Röntgen noticed very soon that one would take pictures of the internal organs an enormously important application. Very soon their curative effects for cancer were discovered, its dangers were realized



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very soon and that one must be very careful in working with these rays. Also next year radio activity was discovered by Becquerel and then Curies came along, and a few years later the atom bomb was discovered and now we are not yet sure that you will survive this discovery. Anyway the world was never the same after Röntgen discovered X-rays.

Now let me tell the story of a man whose mind was not open. Crook's who incidentally was a great physicist himself discovered the cathode rays and the Crook's tube also noticed that the photographic plate gets darkened if you leave it near a Crook's tube, but he only deduced that you should not leave a photographic plate near a Crook's tube. We put up a morning in his laboratory for colleagues not to do so. As a joke, I sometimes call it the biggest mistake in the history of science I could tell from my own career of some instances when my mind was not open; for example, Hajnal and I missed the discovery of the fact that the inaccessible cardinals are not measurable. There are a few other examples. I missed the discovery of the extremal theory of graphs which I should have done two years before Turan did so. Every mathematician will find cases where he really should have made the discovery and he did not make it. This is true of course for every subject in the world.

Now let me tell you one or two jokes about the Erdős number. Graham, a good friend of mine—under an assumed name wrote a paper about the "collaboration graphs" of mathematicians. He writes about this paper, "This paper fills the much needed gap in the literature". The paper considers the problems, namely; "does Gauss have an Erdős number,?" "Can Gauss and I be connected by a line as collaborators?" Now this is not as easy as it sounds; Gauss did not really write any joint papers: it was not customary those days but Gauss collaborated with a German physicist called Weber, in fact, with some justice it can be said that he really discovered the telegram though as far as I know he did not utilize it. Now Weber has joint papers with several others and you can reach the famous physicist Helmholtz and Gauss can be joined to Helmholtz. I can be joined to Einstein quite easily because I have several joint papers with Strauss who has joint papers with Einstein. So the only outstanding problem remains whether Einstein and Helmholtz can be joined by a line. This could certainly be decided by somebody who knows physics better than I do. But perhaps rightly nobody took the trouble to settle this outstanding problem. Another such question after Goldman's paper on the Erdős number appeared; I wrote a paper "The fundamental problem of mathematics". The problem was "You join two people if they have a joint paper. Is this graph planar?" and Sims noticed that the graph was not planar because it contained a Kuratowski graph. By now it has been found that it contains 5 points—any two of which can be joined by a line. Let us now stop talking about not so serious subjects and let me tell you a few more things about my child prodigies.

First of all there is a curious fact that not all subjects have child prodigies; there are child prodigies in mathematics and child prodigies in music. Everybody knows that Mozart was a child prodigy and there are several other musicians who were child prodigies. Now I don't know Indian music well enough in fact I hardly know it, to know whether there are child prodigies in Indian music. I am almost certain there are.

In mathematics there were several child prodigies. An outstanding example was Gauss. Let me tell you another anecdote about Gauss which probably is true. Gauss himself said that he learn to count before he learnt to speak. His great ability was discovered when he was 7 or 8 years old ; he was a very poor boy ; his mother might have been illiterate and he went to a little village school, the school master wanted to have a quiet hour and he told the children to add the numbers from 1 to 100. A few seconds later Gauss came out and said 5050. The teacher first thought that Gauss wanted to be naughty and rather severely asked him ; "How do you know ?" Gauss said "Look, 1 and 100 is 101, 2 and 99 is 101, 3 and 98 is also 101 and if we continue down 50 and 51 is also 101. Therefore the sum of the integers from 1 to 100 is simply 50 times 101 which is 5050. Now the teacher realised that this was the most important event of his life and from then on he gave Gauss special instruction and by the time Gauss was 20 he was one of the greatest mathematicians of the world. And I often say that every high school or elementary school teacher should know enough at least to discover a very clever boy or girl if he finds one and give him or her special encouragement. And if there are quicker than the rest do not try to hold them back but encourage them. This is not always easy and I know of many cases of teachers who actually discovered clever boys.

Let me tell you a few things about my association with child prodigies. Perhaps the most striking child prodigies I came across were Pósa, and Rusza. I came across several child prodigies outside Hungary too but about Hungarian ones I had a little more time to learn. Let me tell you a few words about Pósa. In 1959 when I just returned from Colorado I was told about a little boy who had won a competition which was held for high school students who had just matriculated. The next day I had lunch with the little boy and while he was eating his soup I posed him this question : "Prove that if you have  $n + 1$  integers less than or equal to  $2n$  then two of them must be relatively prime". This is not true for  $n$  integers because we can simply take the multiples of 2 ; then we have  $n$  integers no two of which are relatively prime. Pósa was drinking his soup and he finished his soup and said "If you have  $n + 1$  integers up to  $2n$  then two of them must be consecutive and therefore they must be relatively prime". Needless to say, I was very impressed and then on I worked a great deal with Pósa ; when he was 14½ we wrote already a substantial joint paper and we had many more. This is not an unqualified success story. Pósa is teaching now at the University of Budapest and he is a good mathematician but I still think for his ability he should have been one of the leading mathematicians of the world which he has certainly not become until now. He is very interested in teaching and is a very successful teacher but I always tease him by telling him that if he spends his time teaching elementary mathematics, it is like Bach, instead of writing his immortal music spends his time teaching music to children. Anyway, Pósa is relatively happy and likes what he is doing.

Rusza, another child prodigy of mine started life doing analytic number theory was more successful. When he was 15, he was more successful aheads a mathematician. In fact, he should have been in India. He was invited to a conference which was

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held in Ooty in my "memory" ; by "memory" I mean for my 70th birthday. I already said it when I was 60 when a conference was held in my honour that it was in my memory ; it is much more true now that I am 70. Anyway, he could not come to this conference because he is in West Germany now.

Another child prodigy who was very successful was Lovasz but in a way his mathematical ability manifested itself a little later and Lovasz wrote his first significant paper when he was an old man of 17 and Posa had already done it when he was 14. But by no means all mathematicians are child prodigies. Some counter examples would be Weierstrass ; his talent manifested itself relatively late. Also Hardy was not a child prodigy. As I said, Gauss was a child prodigy. For example Cantor who is one of the deepest thinkers and who opened up infinite sets to mathematics, which according to Bertrand Russell was perhaps the greatest single intellectual feat was certainly not a child prodigy. By child prodigy I mean one whose talent manifests itself by 10 or 12 years. There are exceptions ; for example, my collaborator Hajnal when he got to the University, did not work on studies. He thought he was not suitable for mathematics.

Another, outstanding child prodigy in mathematics was Pascal. His ability showed up at the time when he was 12. His parents, especially, his father, was very worried about his rapid advancement. He tried to discourage him but soon gave up. It is often said about child prodigies that it is dangerous to push them too hard. In some cases it might be justified. For example the great mathematician Norbert Weiner complained often that his father pushed him too hard ; and he almost never praised him and made him work very very hard. But Norbert Weiner overcame this difficulty and became a great man in many subjects. He always remained a little bit of a child prodigy in his behaviour, for example he was wanted people to praise him, even people who evidently did not understand his greatness. Norbert Weiner gives a few examples of child prodigies whose work petered out, on the other hand, certainly a child prodigy should be encouraged to go ahead as fast as he can.

Let me tell you a little joke about my childhood. My father and of course my mother too worked a great deal with me and they were careful not to push me and I always had to quarrel before they taught me various things. For example, I remember very well when I first heard about the absolute zero. I knew that there was something called absolute zero but did not understand it. Once, my parents had to go out and it was not convenient to take me. I was very unhappy, but my parents said that if I were a good boy, they would tell me more about the absolute zero. That is the way I learnt about the absolute zero when I was 10 or 11 years old. As I said I did not start publishing phenomenally early. My first published paper appeared when I was 18 but I kept on working fairly steadily. Now I have more than a thousand papers, more than half of them are joint papers. Despite my enormous age I am still continuing to work as much as I can. As I said, despite the fact that I travelled almost all the time I was asked how I still find time for serious work. The answer is very simple. I have got accustomed to disregard my surroundings. I can work very well in an airplane, in a train and even in a bus, if it is not too crowded and unpleasant. Certainly

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in a train I can work very well ; it is not necessary for me to have paper to be able to work ; I can just think about the problems. I learnt to do this when I was a young man. In Hungary we have made many excursions ; Budapest is nice scenic town, with very beautiful surroundings and we often took long walks. In the walks, I talked about mathematics and I got accustomed to talk about mathematics without paper. As I explained before with examples, how important it is that you should keep your mind open and keep it receptive to new ideas. On the other hand there are no general principles as to how best it is to work. There are people who cannot work well with others ; for example. Mordell told me that the reason he did not have joint papers even though he likes to talk mathematics is that he can concentrate only when he is alone in his study sitting at his desk with paper and pencil. This makes it difficult for him to work jointly. Also, ability to work depends on one's life style. For example, my collaborator Turan, with whom I have more than 20 joint papers once told me after he was over 60 years old, that he had slowed down and it was harder for him then to work jointly by talking ; he had to write things down and see it in a manuscript. Nevertheless, he wrote several joint papers after that. But it was not an easy thing to do for him from then on.

I do not want to keep your attention and time infinitely long. So I will finish in a few minutes. Before I stop let me tell you a few more things about myself. In a sense I have no permanent job ; I do not even have a permanent home. I have no apartment. I just travel around from place to place. An American mathematician called Curtis at the Institute for Numerical Analysis got first the following kind of position for me. I had this position at that time at the Institute of the Numerical Analysis, I got paid either at the Institute for Numerical Analysis at Los Angeles or at the Bureau of Standards at Washington. For every day I was there I got a certain amount of money and I could leave any time I wanted to. I did not have to get a leave of absence and if I was away for more than 3 or 4 days, it was upto the Director whether he considered my trip as a mathematical trip or not and whether I should get paid or not. Since then I had many such positions. At the moment I have got a so-called permanent position at the Hungarian Academy of Sciences and at the Technion at Haifa at what I call the Curtis conditions. Clearly not many people would benefit by such a way of life. People like to travel but do not like to be constantly on the move. Also, they like to have a permanent home. So far, I have managed to keep myself free of all these. But I cannot tell what would happen if I really got old and sick. I am already old but my health is still good. I have another curious habit. I am rather uninterested in material possessions. I would say I have almost no possessions except my immediate needs. My only valued possessions are my note books which I have kept since 1933. There was a French Socialist thinker pre Marxist who said that private property was like stealing. I modified it by saying that property is a nuisance. This is clearly a way of life which is quite unsuitable for one who has a family and especially to one who has children. Even I, when I was a child, liked a certain amount of stability ; that need has slowly disappeared now.

Let me tell you a few more things. I played the following games on science. Some of you will be familiar with the Iliad which is the Ramayana or the Mahabharata

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of the Greeks where the following scene often occurred. The Iliad deals with the Siege of Troy by the Greeks; if two heroes fought, the chief Greek God Herod sometimes favoured one or the other but He was not allowed to interfere. He had to wait for Fate's decision. He had a balance; he put the fates of both of the heroes and he who weighed heavier sank down and that man was supposed to win. He was not allowed to interfere. I made the following joke out of this for myself: I had a large number of collaborators. Unfortunately many of them died now. God has a transfinite balance. He puts the mathematical value of the papers of my collaborators who died and the value of my other papers and when the value of the papers of the person who died is heavier than I have to leave the world too. So I was given an advice which I shall certainly follow, that I should get younger collaborators as much as possible.

Another joke of mine is that you do not have to believe in God but you should believe in the existence of this balance. Another joke of mine is the book: God has a transfinite book which contains all the theorems and their best proofs. If he is well disposed towards you he shows the book to you for a moment. Here, as again it is not necessary to believe in God but it is certainly necessary to believe in the existence of the book. Incidentally I never had the privilege of meeting Ramanujan because he died in 1920 when I was only 7 years old and never even met his widow who is living in Madras. But when I was here last, I saved a certain amount of money. Since rupees cannot be exchanged so I sent the money I saved to Mrs. Ramanujan. This I will do now again. Now I will tell the joke that I hope that in gratitude Ramanujan will steal the book for me for a few seconds. Since I have grown older I will need the book more than when I was younger.

Incidentally, Hardy very strongly emphasised that mathematics is a young man's game, perhaps he was unduly pessimistic but still as far as I know very few great theorems have been found by mathematicians who are older than 70. As far as I know the record is held by Weierstrass. He was born in 1815 and his approximation theorem that every continuous function can be approximated by a polynomial was published in 1885. It was published when he was 70 years old and he probably found it only one or two years earlier. And also Ellie Cartan did important work when he was between below 70. But as far as I know, no really important work has been done by mathematicians over 70 though Hadamard published a paper when he was 90. I hope to break this record but only the future will tell whether my hope will be fulfilled; first of all it is necessary to live that long. I thank you for listening me so carefully. Let me finish my talk wishing all the young people who got their degrees good luck and good luck for the whole Institute and if I live I will surely be back again.

Thank you,

### 7. Visiting Scientists

A number of distinguished scientists from abroad participated in the research, training and other scientific activities of the Institute during the year. Some of them came to the Institute on invitation and spent fairly long periods at the Institute to

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assist in the regular research and teaching programme and some came for short periods in different assignments for giving lectures and participated in conferences and seminars.

1. Professor Trevor Ling, Professor of Comparative Religion, Manchester University, England (6.1.83 to 7.4.83).
2. Professor Ashok Mitra, Jawaharlal Nehru Univeristy, New Delhi (20.6.83).
3. Professor B. D. Nag Chowdhury, Former Member of the Planning Commission and former Vice-Chancellor of the J. N. University (29.9.83).
4. Dr. P. D. Sharma, Institute of Economic Growth, Delhi (5.12.83 to 9.12.83).
5. Professor M. Nei, Centre for Demographic and Population Genetics, University of Texas, Houston, USA (5.12.83 to 7.12.83).
6. Dr. R. E. Farrell, Centre for Demographic and Population Genetics, University of Texas, Houston, USA (8.12.83 to 10.12.83).
7. Dr. W. H. Li, Centre for Demographic and Population Genetics, University of Texas, Houston, USA (7.12.83 to 9.12.83).
8. Professor P. V. Tobias, Department of Anatomy, University of Witwatersrand, Johannesburg, South Africa (5.12.83).
9. Professor J. Gani, Department of Statistics, Lexington, Kentucky, Australia (16.12.83).
10. Dr. Sakti Pada Ghosh, IMB Laboratories, San Jose, California, U.S.A. (19.12.83).
11. Dr. N. S. Agar, Department of Physiology, The University of New England, Australia (20.12.83 to 21 12.83).
12. Professor G. S. Watson, Department of Statistics, Princeton University, U.S.A. (9.12.83 to 23.12.83 and 3.1.84 to 6.1.84).
13. Professor T. Prasad, Systems Science Division, Waterloo University, Canada (26.12.83 to 27.12.83).
14. Professor Ranajit Chakraborty, Graduate School of Biomedical Sciences, Center for Demographic and Population Genetics, University of Texas, Houston, USA (27.11.83 to 1.1.84).
15. Professor D. C. Rao, Director, Division of Bio-statistics, Washington University, School of Medicine, USA (20.2.84).

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16. Dr. Rolf Carlsson, Plant Physiologist, University of Sweden (14.2.84)
17. Professor T. A. Davis, Director, JBS Haldane Research Centre, Tamil Nadu (26.3.84).
18. Dr. S. Panchev, Dean of the Faculty of Physics, University of Sofia, Bulgaria (22.3.83 to 26.3.83 under Indo-Bulgarian Cultural Exchange Programme).
19. Professor T. Neuburn, Komaskey University, Czechoslovakia, (20.1.84 to 24.1.84 under Indo-Czechoslovakia Cultural Exchange Programme)
20. Professor Baumgärtl, GDR Academy of Sciences (5.1.83 to 28.1.83).
21. Professor Manfred Woelfling, Institute for Theory, History and Organisation of Science, Academy of Science of the GDR (in November 1983 under the Indo-GDR Cultural Exchange Programme).
22. Dr. Josef Dravecky (8 to 16 January, 1983 under Indo-Czechoslovakia Cultural Exchange Programme).
23. Dr. J. Seberry, University of Sydney, Australia (30.11.83 to 4.12.83).
24. Professor D. Kostic, Institute for Experimental Phonetics and Speech Pathology, Belgrade, Yugoslavia (5.12.83 to 15.3.84).
25. Professor Luigi Vajani, Director, Statistical Institute, Italy (16.1.84 to 30.1.84).
26. Dr. Alex Comfort, Santa Barbara, California, USA.
27. Dr. (Ms.) Lynn M. Batton, Chairperson, Department of Stat & Math., University of Winnipeg, Canada (4.4.83 to 11.4.83).
28. Professor Jaroslav Moravec, Math. Institute of the Czechoslovak Academy of Sciences, Prague, Czechoslovakia (18.4.83 to 7.5.83).
29. Professor T. E. Raghavan, Department of Mathematics, University of Illinois—Chicago Circle, Liberal Arts & Sciences, Chicago, Illinois, USA (7.3.83 to 2.8.83).
30. Dr. Sukhamay Kundu, University of Florida, Gainesville, Florida, U.S.A. (27.7.83).
31. Dr. M. K. Ramakrishnan, University of Singapore, Singapore (16.8.83 to 29.3.83).
32. Dr. K. C. Das, Department of Mathematics, IIT Kharagpur (8.8.83 to 4.12.83).
33. Dr. S. K. Basu, Indian Institute of Management, Calcutta (22.8.83).

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34. Dr. S. Sengupta, Department of Statistics, Calcutta University, Calcutta (12.9.83).
35. Dr. G. Gopalkrishna, NIHU, Shillong (12.9.83 to 13.9.83).
36. Dr. G. Misra, Department of Mathematics, University of Georgia, Athens, U.S.A. (22.9.83 to 23.9.83).
37. Dr. P. A. Meyer, University of Strasbourg, W. Germany (3.12.83 to 11.12.83).
38. Dr. David Yost, Department of Mathematics, Australian National University, Canberra, Australia (13.12.83 to 5.1.84).
39. Dr. L. Accardi, University of Rome, Italy (14.12.83 to 17.12.83).
40. Professor R. Shimizu, Institute of Stat. Math. Tokyo, Japan (18.12.83 to 24.12.83).
41. Professor M. G. Nadkarni, Department of Mathematics, University of Bombay, Bombay, (3.12.83 to 31.12.83).
42. Professor Prem S. Puri, Department of Statistics, Purdue University, West Lafayette, Purdue, USA (21.12.83 to 26.12.83 and 8.7.83 to Mid July 1984).
43. Professor T. Calinski, Academy of Agriculture, Poznan, Poland (18.12.83 to 21.12.83).
44. Dr. J. S. Rao, University of California, Santa Barbara, C. A., U.S.A. (3.1.84 to 28.4.84).
45. Professor P. Erdős, Academy of Sciences of Hungary, Budapest, Hungary (20.1.84 to 22.1.84).
46. Professor H. Halberstäm, Academy of Sciences of Hungary, Budapest, Hungary (20.1.84 to 22.1.84).
47. Professor Martin Fox, Michigan State University, East Lansing, Michigan, U.S.A. (13.2.84 to 20.2.84).
48. Professor Sanpei Kageyama, Department of Mathematics, Faculty of School Education, Hiroshima University, Hiroshima, Japan (16.2.84 to 21.2.84).
49. Professor Andrew Rukhin, University of Purdue, West Lafayette, U.S.A. (9.3.84 to 15.3.84).
50. Professor S. Varadhan, Courant Institute of Mathematical Sciences, New York, USA (20.7.83).



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51. Dr. N. Sotish Iyengar, Department of Statistics, University of Pittsburgh, USA (8.8.83 to 9.8.83).
52. Professor J. Sethuraman, Department of Statistics, Florida State University, Tallahassee, USA (18.8.83 to 19.8.83).
53. Dr. Subrahmaniam Kocherlakota, Professor of Statistics, University of Manitoba Winnipeg, Canada (9.1.84 to 31.3.84).
54. Dr. Proman Zmyslony, Mathematical Institute, Polish Academy of Sciences, Poland (5.4.83 to 12.4.83).
55. Dr. S. P. Palaniswamy, IIT, Kanpur (8.6.83 to 9.6.83).
56. Dr. S. Ghosh, University of California, Riverside, USA (29.7.83).
57. Professor R. L. Kashyap, Department of Electrical Engineering and Computer Sciences, University of Purdue, U.S.A. (April 1983).
58. Professor A. K. Jain, Department of Computer Science, Michigan State University, East Lansing, USA (1.2.84 to 2.2.84).
59. Dr. Harold W. Borns, Jr., Professor and Director of the Institute of Quaternary Studies, University of Maine, USA (7.1.84 to 12.2.84).
60. Dr. Bradford A. Hall, Professor, Department of Geological Sciences, University of Maine, USA. (7.1.84 to 12.2.84).
61. Dr. William H. Ball, Keeper of Palaeontology, British Museum of Natural History, England (7.1.84 to 12.2.84).
62. Dr. N. Saha, Professor, Department of Physiology, National University of Singapore, Singapore (December 1983).
63. Dr. W. A. Stini, Professor, Department of Anthropology and Department Family and Community Medicine, University of Arizona, Tucson, USA (December 1983).
64. Dr. D. F. Roberts, Professor, Department of Human Genetics, University of New Castle upon Tyne, U. K. (December 1983).
65. Dr. F. Meyer, Member, Groupment de Recherches Coordonnees Himalaya Karakorum, CNRS, Paris, France (December 1983).
66. Dr. Karl F. Peter, Lindenberg (26.1.84 to 26.4.84).

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67. Dr. Klaus I. Gelbert, Department of Anthropology, Bremen University, W. Germany (26.1.84 to 26.4.84).
68. Mr. William Clive, UN Statistical Office, Energy Section (15.3.84).
69. Professor S. B. Mukherjee, The Demographer and Economist, West Bengal Planning Board, visited several times, during the year.
70. Dr. Nigel Crook, Lecturer, School of Oriental and African Studies, London.
71. Dr. A. Ostrovsky, Academy of Sciences, USSR, Institute of Far Eastern Studies, Moscow, (USSR).
72. Dr. Malcolm Blincow, Department of Anthropology, York University, Toronto; Ontario, Canada.
73. Dr. Bruno Jobert, Institute d'Etudes Politiques, CERAT, France.
74. Dr (Mrs.) Nagamma Reddy, Department of Linguistics, Osmania University Hyderabad, (29.2.84 to 7.3.84).
75. Dr. V. K. R. V. Rao, Emeritus Professor, Institute for Social and Economic Change, Bangalore (6.6.83).
76. Dr. K. S. Krishnaswamy, Former Deputy Governor, Reserve Bank of India, Bangalore (6.6.83).
77. Dr. P. R. Brahmananda, University of Bombay (6.6.83).
78. Professor B. V. Krishnamurthy, University of Delhi (Retd.), Bangalore (6.6.83).
79. Dr. K. C. Senl, Director General, Central Statistical Organisation, New Delhi (8.8.83).
80. Dr. H. K. Paranjape, Pune, Member, Technical Advisory Committee (Social Science), Indian Statistical Institute (17.8.83).
81. Dr. Victor Solo, Associate Professor of Statistics, Harvard University, USA (17.8.83).
82. Professor S. M. Veeraraghavachar, Emeritus Professor of Economics, University of Mysore (21.11.83).
83. Professor Velulu Narayana Murty, Penn. State University, USA (23.11.83).
84. Mr. Seiji Naya, Chief Economic Adviser, Asian Development Bank, Manila (27.12.83 to 30.12.83).

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85. Professor George Rosen, University of Illinois, Chicago, USA (26.12.83 to 4.1.84).
86. Professor Zvi Griliches, Harvard University, USA (4.1.1984).
87. Professor P. N. Kaula, Head of the Department of Library and Information Science, Banaras Hindu University, Varanasi (6.5.83).
88. Shri B. S. Ramananda, Superintendent, Technical Information Services, HMT, Bangalore (16.5.83 to 20.5.83).
89. Shri R. Thiagarajan, Director (Information and Documentation), Department of Science and Technology, New Delhi (21.5.83).
90. Shri M. V. Ranganathan, Manager, Technical Information Service, HMT, Bangalore, (21.5.83 to 25.5.83).
91. Professor K. Subramanyam, University of Drexel, Philadelphia, USA (15.9.83).
92. Dr. V. A. Kamath, Retired Chief of the Information Services Division of the Bhabha Atomic Research Centre (BARC), Bombay (20.10.83).
93. Shri Girja Kumar, Librarian, Jawaharlal Nehru University, New Delhi (3.12.83).
94. Mr. Philip M. Whiteman, Head, Department of Social Management Studies, College of Librarianship, Wales, U.K. (3.12.83).
95. Miss Monica Allen, Information Resource Unit, British Council, New Delhi (3.12.83).
96. Mr. J. S. Soosai, Vice President, International Federation for Library Association and Institutions (IFLA), the Hague (9.12.83).
97. Dr. Eugene Garfield, President, Institute of Scientific Information, Philadelphia, USA (14.12.83 to 16.12.83).
98. Dr. Miles Jackson, Professor and Dean, Graduate School of Library Studies, University of Hawaii (12.12.83 to 14.12.83).
99. Mr. D. Hansrath, Chief, USIS Libraries in India, New Delhi (12.12.83 to 14.12.83).
100. Shri A. K. Dasgupta, Librarian, Administrative Staff College of India, Hyderabad (12.12.83 to 16.12.83).
101. Mr. Jozsef Kadar, Director, National Technical Information Centre and Library (OMIKK), Budapest, Hungary (3.3.84).

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102. Mr. Tibor Bazzo, Advisor, State Office for Technical Development, Budapest, Hungary (3.3.84).
103. Mr. N. K. Gopalakrishnan, Director, Energy Documentation Centre, TERI Bombay (16.1.84).
104. Dr. John B. Rose, Programme Specialist, General Information Programme, UNESCO, Paris (24.3.84).

### 8. Honours, Awards and Special Assignments

Dr. J. Roy (Applied Statistics, Surveys & Computing) acted as the Chairman of the Technical working group on reorientation of ASI tabulation—CSO (I.S. Wing), Calcutta. He acted as the Chairman of the working group for improvement of administrative statistics relating to transport sector in West Bengal—Bureau of Applied Economics and Statistics, Government of West Bengal. He acted as a member of the Advisory Council, Survey Research and Training Centre, New Delhi. He also acted as a member of Technical Advisory Board on Statistics, Ministry of Planning, Department of Statistics, C.S.O., New Delhi.

Dr. B. N. Mukherjee (Applied Statistics, Surveys & Computing) was nominated as a member of the Scientific Advisory Committee of the Institute for Research in Medical Statistics, I.C.M.R., New Delhi. He continued to serve as Chairman of the Human Relations Research Advisory Committee, ATIRA, Ahmedabad. He was a member of educational research innovation committee (ERIC) of National Council of Educational Research and Training, New Delhi.

Dr. A. C. Mukhopadhyay (Applied Statistics, Surveys & Computing) acted as a moderator and external examiner in the M.A..M.Sc. examination in Statistics conducted by Calcutta University.

Dr. P. Bhimasankaram (Applied Statistics, Surveys & Computing) was nominated as a member of the expert group on the systems and software of National Geophysical Research Institute, Hyderabad.

Dr. Shibdas Bandyopadhyay (Applied Statistics, Surveys & Computing) represented ISI at a Workshop on Rice Based Farming Systems Research at Central Rice Research Institute, Cuttack during 3-4 June, 1983. He acted as a Co-Chairperson for the scientific session on 'Applying Statistical Methods to Medical/Health Data' in the National Symposium on Statistics in Medicine, Jhansi, 10-12 November 1983. He represented the ISI in the organising committee for the seminar on 'Calcutta beyond 2000 AD', Calcutta, 15-17 February 1984, sponsored by the Department of Science and Technology. He served as an expert in the discussion on 'Calcutta Future : 2000 and Beyond', televised by the Calcutta Doordarshan Kandra on 12 March, 1984.

Shri Anirban Basu (Applied Statistics, Surveys & Computing) acted as course coordinator in the orientation course on 'Computer organisation and FORTRAN programming' conducted by the West Bengal State Centre of the Institution of Engineers (India) in November 1983 and March, 1984.

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Shri T. Maitra (Applied Statistics, Surveys & Computing), on invitation, participated in the All India Symposium on Statistical Methodology for Crop Forecasting and Crop Estimation, during September 19-23, 1983 and chaired a session of the symposium.

Professor D. Dutta Majumder (Electronics and Communication Science) was elected a Member of the Governing Board of the International Association of Pattern Recognition (IAPR), and also member of IAPR's Nominations Committee. He also chaired a Technical session and presented an invited talk at 1st Asian Congress of Cybernetics and Systems Science, in New Delhi, January 19-21, 1984 and also at the National Seminar on Signal Processing at Cochin on 24th and 25th November 1983.

Shri P. Bandyopadhyay (Electronics) has become a member of the Committee set up by the University Grants Commission for the establishment of a National Centre for Theoretical Studies. He attended various selection committee meetings of C.S.I.R. at New Delhi. He also attended a meeting of the Advisory Committee of the Indian Association for the Cultivation of Science, Calcutta.

Professor S. K. Roy (Botany) was appointed a member of the State Council for Adaptive Research in Agriculture, Government of West Bengal on July 24, 1981 and he continued to serve the Council during the year 1983-84.

Professor S. K. Roy continued to serve as a Member of the Under Graduate Board of Studies in Science (Botany) of the University of Calcutta during 1983-84.

Professor S. K. Roy acted as Chairman of Session VII : Cytology and Genetics of the Silver Jubilee Celebration International Conference on "Science and Cultivation Technology of Edible Fungi". Regional Research Laboratory (CSIR), Jammu and Kashmir, Srinagar, September 9-11, 1983.

Dr. P. C. Das Chaudhuri (Entomology) continued as Honorary Adviser to a research project (financed by the Government of West Bengal) entitled "A Study of mosquitoes' behaviour of Dum Dum locality for their control".

Dr. D. K. Bose (Economic Research) was co-opted as a member of the West Bengal State Electricity Board. He served as Co-Chairman in the Congress of the World Energy Conference held at Delhi on 18-23 September, 1983.

Dr. N. Bhattacharya (Economic Research) became a member of the Task force on Public Sector Statistics and National Income Statistics including Residual sectors formed by the Government of India Committee for Reviewing the work of the Central Statistical Organisation, Government of India.

Professor K. C. Majumdar (Economic Research) was serving as a member of the following Committees. (a) Advisory group of the Seventh Plan Modelling set up by the Planning Commission, (b) National Board of Higher Mathematics set up by the Department of Atomic Energy, Government of India, (c) Working group on Seventh Plan and Perspective Plan set up by the Government of Bihar.

Dr. S. L. Jain's (Geological Studies) biographical sketch has been selected for inclusion in the First World Edition of International Book of Honour by the American Bio-

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graphical Institute, North Carolina. He has been nominated as contributing Member of the Honorary Educational Board of the American Biographical Institute. He continued to serve as Chairman of the Working Group on Vertebrate Palaeontology (for the 6th year) under the Subcommission on Gondwana Stratigraphy of the International Union of Geological Sciences. He served in the Panel of Advisors to Collin's Guide to Dinosaur, published by Collins (England) in 1983 and was invited to contribute a research article by Editors of "Mesozoic Vertebrate Life" for their forthcoming volume.

Durgaprasad Bhattacharya (Pre-Census Population Studies) continued to served as (i) Member, Indian Historical Records Commission (ii) Member, Committee on Historical Statistics (iii) Secretary, Socio-Economic Research Institute (iv) Hony. Directors of the Research Project : Sociological Writings in Bengali sponsored by the Indian Council of Social Science Research.

Sun. Rama Deb Roy (Pre-Census Population Studies) continued to serve as the Joint Secretary of the Socio-Economic Research Institute and Hony. Director of the Project : Bengali Writings on Science and Technology sponsored by the Indian National Science Academy.

Shri A. K. Dasgupta (Sociology) with the approval of the authorities of ISI, has been functioning as a member, in honorary capacity, in the following Committees of Government of West Bengal : (i) The State Advisory Committee on District Gazetteers of West Bengal ; (ii) The State Advisory Committee on Archaeology, West Bengal ; (iii) The Regional Historical Records Survey Commission, State Archives ; (iv) The State Advisory Committee on Permanent Gallery on Freedom Movement in Bengal.

Shri S. K. Biswas (Sociology) has been nominated by the University of Calcutta as : (i) Member, Board of Undergraduate Study in Anthropology ; (ii) Member, Board of Higher Study in Anthropology.

Dr. Partha N. Mukherjee (Planning Delhi) : Delivered a series of lectures as UGC Visiting Fellow to the Department of Sociology, Panjab University, Chandigarh, between February 16th and 29th February, 1984.

### 9. Scientific tours and assignments abroad

Professor A. Mitra (Stat-Math) visited the University of California, Berkeley, California, USA for a period of one year beginning 15 September, 1982. During his stay he took courses and delivered lectures.

Dr. Y. R. K. Sarma (Stat-Math) visited the University of California, Santa Barbara, USA for a period of six months beginning January 1983. During the stay he took courses and delivered lectures.

Professor J. K. Ghosh (Stat-Math) visited the University of California, Berkeley, California, USA from 1 June 1983 to 15 August 1983. During his visit he delivered

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lectures. He also attended the Workshop on Sequential Analysis at the University of Iowa City, USA.

Dr. B. L. S. Prakasa Rao (*Stat-Math*) visited Humboldt University, East Berlin from 28.10.83 to 1.11.83 and gave a lecture on "Least squares and nonlinear regression".

Attended the Sixth International Summer School during the period November 1, 1983—November 19, 1983 at Sellin (Rugen) East Germany and presented an invited talk on "Estimation of the drift for diffusion processes". Was also a Chairman for a session conducted on November 8, 1983. On November 10, 1983, visited Karl-Marx University at Leipzig and gave a lecture on "On the functional equation  $f(x) = \int_{x-y}^{x+y} f(y) \mu(dy)$  and its application" based on joint work with Professor B. Ramachandran. Left East Berlin on November 13, 1983.

Also visited West Germany for six days and gave lectures at Universities of Trier, Bayreuth, Munster and Dortmund during the period November 14-18, 1983.

Dr. P. L. Muthuramalingam (*Stat-Math*) selected as a INSA-Royal Society Visiting Fellow and left for King's College, London on October 15, 1983 to collaborate with Professor E.B. Davies there. Presently visiting the University of Bielefeld, F.R.G.

Dr. K. R. Parthasarathy (*Stat-Math*) visited Mathematics Research Centre, University of Warwick, England, 15 May—5 July, Sponsored by Science Research Council of U.K. During this period in collaboration with Dr. R. L. Hudson research was of Cornell, the topic of Quantum Stochastic Differential Equations. (2) University carried out on 6 July—11 July. Annual Conference of the Bernoulli Society. Delivered a one hour invited address on the Quantum Ito's formula.

Dr. T. Parthasarathy (*Stat-Math*) attended Mathematical Game Theory Conference at the Mathematics Institute at Oberwolfach from March 18 to March 24, 1984. He visited University of Born from March 11-18, 1984 and gave two lectures one on 'voting games' and another on 'Some new results of Global Univalence Theorems'. Also gave lectures at Ulm University and Karlsruhe University during March 28-28, 1984.

Dr. Kalyan B. Sinha (*Stat-Math*) visited and lectured at Universities of Geneva, Louvain-la-Neuve (Belgium) and Brussels during May 13 June 20, 1983.

Dr. K Rama Murthy (*Stat-Math*) returned after completing three years as a Visiting Assistant Professor in the Department of Mathematics, University of Tennessee, Knoxville, Tennessee, USA, and joined the Unit on 7 July 1983. During his stay, Dr. Rama Murthy worked with Professor B. S. Rajput of Semi-stable Distributions on Banach Spaces.

Dr. T Krishnan (*Applied Statistics, Surveys and Computing*) visited Brussels, Belgium to attend the workshop on Data Analysis and Aachen, West Germany to deliver lectures on (i) classification problems between discriminant and cluster analysis and (ii) learning with and without supervision in the Technical University, Aachen.

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Dr. Shibdas Bandyopadhyay (*Applied Statistics, Surveys and Computing*), on invitation, participated in the Workshop on joint research project 'Pattern of Growth Mechanism of South Asian Agriculture - A Case Study of India' during 21-26 March 1984 at the Institute of Developing Economics, Tokyo. He gave a talk on 'Classification with dependent samples' at the Chiba University, Japan on 27 March 1984, and a talk on 'Recent topics in the theory of classification' at the Institute for Statistical Mathematics, Tokyo, on 28 March 1984.

Shri T. Maitra (*Applied Statistics, Surveys and Computing*) visited Kathmandu, Nepal during August 13-22, 1983 as an ILO expert to assist the National Planning Commission of Nepal in designing a socio-economic survey on employment, income, expenditure and basic needs of Nepal. He served as the Chairman, high level committee on feasibility of collaboration between programme evaluation, organisation and National Sample Survey Organisation.

Shri A. B. Gupta (*Physics*) attended the XVI Congressus, Internationalis Dermatologiae, Tokyo, Japan, May 23-28 1983 organised by the International League of Dermatological Societies and presented a paper 'Some disorders of human scalp hair : A tensile study' under the group 'Biology of Skin appendages'. Also participated in the symposium 'Cryobiology and Cryosurgery and a workshop on 'Biophysical properties of skin'.

Shri A. B. Gupta (*Physics*) attended the IVth International Symposium on Bioengineering and Skin, Besancon, France, September 7-9, 1983 organised by the International Society for Bioengineering and the Skin with the collaboration of Pole de Genie Biologique et Medical de Franche-Comte. Presented two papers (i) Tensile properties of human scalp hair in diffuse alopecia and (ii) Hardness of human nails : normal and pathological. He also participated in the four workshops : (i) Mechanical properties of hairs and nails, (ii) Skin surface pH, (iii) Measurement of skin temperature, and (iv) Measurement of electrical properties of skin.

Dr. B. B. Bhattacharya (*Electronics*) attended the IEEE International Test Conference held at Philadelphia during 17-20 October, 1983, for presenting his paper 'Syn-drome testable design of combinational networks for detecting stuck-at and bridging faults'.

Dr. B. S. Dandapat (*Electronics*) attended the Second Asian Congress of Fluid Mechanics, Beijing, China, October 25-29, 1983 (sponsored by the China Association for Science and Technology, The Chinese Society of Theoretical and Applied Mechanics and the Institute of Mechanics, Chinese Academy of Sciences), and presented a paper entitled "On the nonlinear stability of the Ekman Layer on a porous plate".

Dr. A. Ghosh (*Electronics*) attended the Second Asian Congress of Fluid Mechanics, Beijing, China, October 25-29 1983 (Sponsored by the China Association for Science and Technology, The Chinese Society of Theoretical and Applied Mechanics and the Institute of Mechanics, Chinese Academy of Sciences), and presented a paper entitled "Study of flow field in a hydrocyclone".



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Dr. H. P. Majumder (*Electronics*) attended the Fourth Symposium on 'Turbulent Shear Flows', Karlsruhe, W. Germany, September 12-14, 1983 (Sponsored by NSF etc.), and presented a paper entitled "Some remarks on the weak interaction of mean and turbulent fields of temperature and wind velocity". Dr. Majumder visited Norway during the period September 1981 to August 1983. He worked at the Institute for Mekanikk, Norges Tekniske Hgskole, Trondheim as a Post-doctorate Research Fellow under the guidance of Professor L. N. Person. After the completion of this fellowship Dr. Mazumder joined the Institute on September 20, 1983.

Dr. J. Dattagupta (*Electronics*) went to Gesselsft fur Mathematik and Detenverarbeitung, Bonn as a visiting fellow to work on the Project 'MIKROS' (Microprocessor Software). After completing her work there she came back and joined the Institute in February, 1984.

Dr. A. Chaudhuri and Mr. D. K. Rudra (*Geology*) visited University of Maine, USA October 10-29, 1983 and Texas Tech University, USA November 3-8, 1983 under a research programme jointly sponsored by the Institute and the National Science Foundation, USA. During their visit Dr. Chaudhuri and Rudra held scientific discussions with Dr. H. Borns and Dr. B. Hall of Institute of Quaternary Studies, University of Maine on various aspects of Permian Talchir glaciation as well as modern and Quaternary glacial deposits. They also carried out geological field work to study the glacial deposits along the Atlantic coast near Maine. They also spoke at a seminar on the Talchir glacial sediments of India. During their visit at Texas Tech University Dr. Chaudhuri and Rudra held discussion on the possible similarity of sedimentation and paleogeography of the Triassic red beds of U.S.A. with those of Indian Gondwana with Dr. Sankar Chatterjee.

Professor Amitabha Basu (*Anthropometry and Human Genetics*) attended the International Congress of Anthropological and Ethnological Sciences, pre congress symposium on 'Genetic epidemiology in an anthropological context'. 18-19 August, 1983, Victoria, Canada, sponsored by ICAES, UNESCO and ISI, and presented an invited paper entitled 'Physical environmental, sociocultural and ethnic correlates of human biology in some population of West Bengal, India and neighbouring regions : mortality differentials'.

Professor Amitabha Bashu (*Anthropometry and Human Genetics*) acted as Organizer/Chairman of the ICAES symposium on "Human adaptation to environment : relative impact of physical environmental and sociocultural factors", 20-25 August, 1983, Vancouver, Canada, sponsored by ICAES, UNESCO and ISI. He made the introductory and concluding remarks.

Premananda Bharati (SRF—*Anthropometry and Human Genetics*) attended the ICAES symposium on "Human adaptation to environments", 20-25 August, 1983, Vancouver, Canada, sponsored by ICAES, UNESCO and ISI and presented an invited paper entitled "Physical environmental, sociocultural and ethnic correlates of human biology in some populations of West Bengal, India : morbidity patterns".

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Barun Mukhopadhyay (SRF-Anthropometry and Human Genetics) attended the ICAES symposium on "Human adaptation to environment... ..", 20-25 August, 1983, Vancouver, Canada, sponsored by ICAES, UNESCO and ISI and presented an invited paper entitled "Ophthalmological traits in three populations of Kalimpong subdivision, Darjeeling district, West Bengal, India : effects of ethnic, sexual and physical environmental factors".

Prof. R. L. Brahmachary (*Embryology*) returned in March 1983 from Zimbabwe where he had been studying Wildlife Ecology with the cooperation of Zimbabwe National Parks.

Shri S. K. Biswas (*Sociology*) visited Canada to attend (i) The XI-International Congress of the Anthropological and Ethnological Sciences, Quebec City and Vancouver, 14-26 August, 1983, and presented a paper. He acted as Organizer and Chairperson of the Symposium on Ageing and Society. (ii) Initiating meeting of the Committee for International Cooperation in National Researches in Demography, Paris (hosted by the Department of Demography, University of Montreal, Canada) 3-7 October, 1983, Montebello. Participated on invitation to represent ISI for finalising a project on : Demographic and Socio-economic aspects of population ageing.

Shri S. K. Biswas (*Sociology*) on invitation visited the (i) Department of Sociology, Waterloo University, Canada ; (ii) Department of Anthropology, Waterloo University, Canada ; (iii) Department of Sociology, McGill University, Canada ; (iv) Department of Sociology, Ramapo College, New Jersey, USA ; and (v) Department of Sociology, University of New Jersey, USA, during the period between 27 August and 2 October, 1983.

Dr. V. D. Gangolli (*Honorary visiting Fellow—Economic Analysis*) participated in the 150th Anniversary Conference of the Royal Statistical Society of the United Kingdom, London (Imperial College), April 4-6, 1984.

Dr. Bhaskar Dutta (*Economic Research*) visited Universitaire Netre—Dame De La Pair, Namur, Belgium during 6 January to 10 March 1984.

Dr. N. Bhattacharya (*Economic Research*) visited Sri Lanka during 21 September to 5 October 1983 on a World Bank assignment to help the Central Bank of Ceylon to plan their island wise surveys of employment and unemployment to be started in 1984.

Dr. L. S. Bhat (*Planning—Delhi*), on invitation, participated in the 4th Indo-British Seminar on Rapid Social and Economic Change organised by the University of Birmingham and Lampeter (Wales) during September 14-28, 1983. Besides participating in the seminar Dr. Bhat visited London School of Economics, Institute for Development Studies and Geography Department at Sussex, University of Liverpool, Centre for South Asian Studies, Cambridge, School of Oriental and African studies and University college of London to discuss recent trends in regional planning. Dr. Bhat left for London on September 14 and returned on 13 October, 1983.

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Dr. K. Saradamoni (Planning—Delhi) was a Visiting Fellow on a Ford Foundation Grant in the Lehman College and Graduate Centre of the City University of New York, U.S.A. between April—September 1983. Dr. Saradamoni attended the Conference on Women in the Rice Farming systems organised by the International Rice Research Institute at Manila between 24 September and 30 September, 1983.

Shri S. Seetharama (*DRTC*) attended, on invitation, the "Third Meeting of the UNISIST Working Group on Information Analysis and Consolidation", Kuala Lumpur, 12-26 September 1983, sponsored by UNISIST (UNESCO). He contributed a paper entitled "Towards a methodology for information consolidation".

Dr. I. K. Ravichandra Rao (*DRTC*) attended, on invitation, the seminar on "Library Information objectives", Kuala Lumpur, 5-6 March 1984, sponsored jointly by the Library Association of Malaysia and the Library Association of Singapore. He participated in the discussion on "Library Automation".

Dr. I. K. Ravichandra Rao (*DRTC*) visited Kuala Lumpur, on an invitation from the National Library of Malaysia, during 7-10 March 1984. He delivered a series of lectures on "Library Automation". His book "Library Automation" was used as the course material.

### 10. Scientific Assignments in India

Dr. G. J. Babu (*Stat-Math*) went to Ootacamund from 3 to 10 January 1984, to attend the fourth Matscience Conference on Number Theory and presented a paper. Dr. Babu attended the Bernoulli Society Conference held at Delhi from 12-14 December 1983 and presented a paper. He also attended the fourth annual conference of ISTPA held during the period 16-18 June, 1983 and presented a paper.

Shri Arup Bose (*Stat-Math*) participated in the UGC sponsored Advanced Level Institute in Statistical Inference and Applied Probability at the Department of Statistics, University of Poona, Pune from May 20 to June 25, 1983. He also attended the 13th International Conference on Stochastic Processes and their Application held at Banaras Hindu University during December 17-21, 1983 under the auspices of the Committee on Stochastic Processes of the Bernoulli Society for Mathematical Statistics and Probability at the invitation of the ISTPA and delivered an invited lecture.

Dr. R. Das Gupta (*Stat-Math*) attended the Bernoulli Society Conference held at Delhi from 12-14 December 1983 and the 13th International Conference on Stochastic Processes and their Application held at Banaras Hindu University during December 17-21, 1983 under the auspices of the Committee on Stochastic Processes of the Bernoulli Society for Mathematical Statistics and Probability at the invitation of the ISTPA. He also attended the fourth annual conference of the ISTPA held during the period 16-18 June 1983. He presented papers at all the three conferences.

Professor J. K. Ghosh (*Stat-Math*) attended the Bernoulli Society Conference held at Delhi from 12-14 December 1983 and chaired a session. On invitation he went

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to the University of Bombay on 3 February 1984 to deliver the M. C. Chakraborty Memorial Lecture Series. He returned to Calcutta on 13 February 1984.

Dr. Shahariar Huda (*Stat-Math*) participated in the Regional Conference of the Bernoulli Society held during December 10-12, 1983 at Delhi and presented two papers.

Dr. B. S. Mazumder, (*Stat-Math*) attended a short course on "River Morphology" held in the Department of Civil Engineering, University of Roorkee, India from December 14-16, 1983 and visited the Hydraulic Laboratory in the Civil Engineering Department of that University.

Dr. Subhashis Nag (*Stat-Math*) participated in the Annual Conference of Indian Math. Society held during December 23-25, 1983 at IIT, Madras and delivered two lectures. During the period January 9-16, 1984 he attended the TIFR International Colloquium on 'Vector Bundles over Algebraic Varieties' and after the conference gave a lecture at TIFR. He delivered two invited lectures at the UGC Instr. Conference on Differential Analysis at IIT, Kanpur held during 9-28 April, 1984.

Dr. Rahul Mukherjee (*Stat-Math*) attended the 37th Conference of the Indian Society for Agricultural Statistics held at Simla during October 1983 and presented a paper. He also attended the Regional Conference of the Bernoulli Society held in New Delhi during December 1983, and presented a few papers written either by himself or with co-authors.

Shrimati Atasi Roy Chaudhury (*Stat-Math*) attended the Summer School on Advanced Level Institute in Statistical Inference and Applied Probability sponsored by the UGC at the Department of Statistics, University of Poona, Pune from May 20 to June 25, 1983. She also attended the Regional Conference of the Bernoulli Society held in New Delhi during December 1983, and presented a paper.

Professor A. K. Roy (*Stat-Math*) was an invited speaker at the Symposium held on July, 1, 1983 by the Department of Pure Mathematics, Calcutta University.

Dr. G. M. Saha (*Stat-Math*) attended the 37th Annual Conference of the Indian Society of Agricultural Statistics, held at Shimla, during October 24-17, 1983 and presented two papers.

Dr. B. K. Sinha (*Stat-Math*) attended the Regional Conference of the Bernoulli Society held in New Delhi during December 10-12, 1983 and presented a paper. He also attended the Annual Meeting of the Indian Society of Agricultural Statistics held at Simla during October 24-27, 1983 and presented a paper.

Dr. S. Natarajan (*Stat-Math*) participated and gave some lectures in the Summer Institute organised by the *Stat-Math* Division at Mysore during 8 June-9 July, 1983.

Dr. S. Natarajan (*Stat-Math*) gave an invited talk at the concluding session of Advanced Seminar on Probability and Statistical Inference held at the Department of Statistics, University of Poona, during 23-25 June, 1983.

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Dr. K. Rama Murthy (*Stat-Math*) gave a course on Probability Theory and Stochastic Processes at the Tata Institute of Fundamental Research Centre in Indian Institute of Science campus, Bangalore, during January 1983-March 1984.

Professor D. Dutta Majumder (*Electronics & Communications Science*) delivered an invited lecture at the INSDOC, New Delhi on Pattern Recognition and Artificial Intelligence on 12th September 1983.

Professor Dutta Majumder functioned as a member of the Indian Met. Dept.'s Computer System Selection Committee.

Professor Dutta Majumder chaired a technical session and presented invited paper at the 1st Asian Congress on Cybernetics and Systems Science.

Professor Dutta Majumder chaired a session and presented an invited talk at the CASAMCU National Research Symposium on Applications of Mathematics to Science and Society.

Professor A. K. Datta, Dr. B. B. Chaudhuri, Sm. A. Roy and Shri B. Chanda (*Electronics & Communications Science*) attended International Conference on System Man and Cybernetics held on 3-7 January, 1984 at Bombay and New Delhi and presented six papers.

Professor D. Dutta Majumder, Dr. S. K. Pal, Sm. A. Pathak and Sm. B. Chakraborty (*Electronics & Communications Science*) attended Seminar on Signal Processing held on November 1983 at Cochin and presented three papers.

Professor D. Dutta Majumder, Shri S. E. Sharma and Shri A. K. De (*Electronics & Communications Science*) attended First Asian Congress on Management Science Cybernetics and General Systems held in New Delhi on 19-21 January 1984 and presented four papers.

Shri T. S. Kutty (*Geological Studies*) participated in the Data Analysis Workshop for life sciences organised at ISI from 16 January to 4 February 1984. He also attended a course on "New concepts and methods in Stratigraphy", organised at IIT, Kharagpur during December 1983.

Dr. S. L. Jain (*Geological Studies*) delivered two invited lectures : (i) Panjab University, Chandigarh, Extension lectures for combined Geology-Zoology faculties on "Dinosaurs : some problems and controversies", 18 April 1983 and (ii) National Museum of Natural History (Govt. of India, Dept. of Environment), New Delhi on "The World of Dinosaurs", 20 April 1983. As Chairman of vertebrate Palaeontology Working Group, Dr. Jain succeeded in enlarging the Group which now represents 12 countries, including Peoples Republic of China, and raising the membership to 34. News letter No. 6 of the Working Group was issued from Calcutta in December 1983. Upon invitation Dr. Jain also contributed a News-item to the Society of Vertebrate Palaeontology (New York) News Bulletin.

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Dr. T. Roy Chowdhury (Geological Studies) was elected to the Council of the Geological Mining and Metallurgical Society of India.

Professor Amitabha Basu (Anthropometry and Human Genetics) acted as Convener of the Indian Anthropological Society Silver Jubilee International Conference on Man and Environment, symposium on "Biological and cultural adaptation in man", 6-9 December, 1983, Calcutta.

Shri B. N. Mukherjee (Anthropometry and Human Genetics) attended International Symposium on Genetic Microdifferentiation in Human and other populations held at Hyderabad, during 8-10 December 1983 and presented a paper entitled "Genetic Microheterogeneity in the tribal populations of South Western India.

Shri B. N. Mukherjee (Anthropometry & Human Genetics) attended the Xth Conference Ethnographic and Folk Culture Society from 20-22 January 1984 and presented following two papers : 'Transferrin subtype polymorphism by isolective focusing in South Indian populations' and 'Human Placenta for population genetic study : Special references to Alkaline phosphatase isozymes variation in Indian population. He also co-chaired the session of 'Population Genetics'.

Dr. S. Chatterji (Psychometry) delivered three lectures : (i) 'Some Aspects of Performance Appraisal' in Seminar organised by Institute of Management in Government, Trivandrum, on 8th July 1983. (ii) "Communication in Organisation"—Management Development Programme, organised by National Aluminium Co. at Puri from 30th June to 1st July 1983, and (iii) "Selection by Objective Methods"—in Bharat Heavy Plate Vessels, & Visakhapatnam, on 3rd September 1983. Dr. Chatterji was invited to participate in a Discussion programme on "Psychometry" at Doordarshan Kendra, Calcutta on 5th September 1983. Dr. Chatterji was also invited by the Joint Entrance Examination Board (V. P. P. Mandal) of Madhya Pradesh at Bhopal, for a discussion so as to assist and advise them in evaluating the joint entrance examination being conducted by them.

Dr. M. Mukherjee (Psychometry) delivered three lectures : (i) "Accuracy of Self Assessment"—in a Seminar organised by the Institute of Management in Government, Trivandrum, on 8th July 1983. (ii) "Group Dynamics and Team Building"—in Management Development Programme, organised by National Aluminium Co. Puri, from 30th June to 1st July, 1983 and (iii) 'How to improve accuracy of Mental Measurement'—in Bharat Heavy Plate & Vessels, Visakhapatnam, on 3rd September, 1983. Dr. Mukherjee was invited to participate in a Discussion programme on "Psychometry" at Doordarshan Kendra, Calcutta, on 5th September, 1983. Dr. Mukherjee also invited by the Joint Entrance Examination Board (V. P. P. Mandal) of Madhya Pradesh at Bhopal for a discussion so as to assist and advise them in evaluating the joint entrance examination being conducted by them.

Shri Kunal Chattopadhyay (Pre-Census Population Studies) attended the All India Labour Economic Conference held at Lucknow University on 21-24 October, 1983 and presented a paper.

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Dr. S. Maiti (Leaf Protein) gave a talk on all India Radio (Calcutta 'B') at 9.30 p.m. on 3 November, 1983, under the World Science Section. The title was "All about Leaf Proteins".

Dr. Suraj Bandyopadhyay (Sociology) attended the International Conference on Man and Environment, Calcutta 6-9 December 1983, organised by Indian Anthropological Society (cosponsored—Indian Statistical Institute, Calcutta; Anthropological Survey of India and International Association of Human Biologists, England). He acted as convener of the Conference.

Shri S. K. Biswas (Sociology) attended the following seminars: (i) Planning in North East India, Shillong, 21-23 April 1983, organised by North-East India Council for Social Science Research and presented a paper, (ii) Tribal problems and tribal development, Bidhisha, Midnapore, West Bengal, 10-12 June, 1983. He acted as Convener of the Seminar; (iii) International Conference on Man and Environment, Calcutta 6-9 December, 1983, organised by Indian Anthropological Society (cosponsored: Indian Statistical Institute, Calcutta; Anthropological Survey of India, Calcutta and International Association of Human Biologists, England). He was a Member Organizing Committee and Convener of the Symposium on Society, Environment and Development Discusant of the Session; (iv) Problems of Ageing and the Aged in India, St. Xaviers College, Calcutta, 11 February 1984. Tapoban: A Social Service Organization, Chairperson and (v) Problems of Pre-Agricultural Committee, Calcutta, 31 March, 1984, organised by Anthropological Survey of India, Calcutta.

Shri Kumarananda Chattopadhyay (Sociology) delivered a talk on "Social Ecology of Sundarban" at the request of Indian Association for Human Sciences at the Department of Anthropology, Calcutta University, on 1st October, 1983.

Shri. Kumarananda Chattopadhyay, (Sociology) attended the following seminars: (i) International Conference of Man and Environment, Calcutta, 6-9 December 1983, organised by the Indian Anthropological Society (cosponsored—Indian Statistical Institute, Calcutta, Anthropological Survey of India, and International Association of Human Biologists, England); (ii) Workshop on Policy Formulation for Development and the Environment, sponsored by the Department of Environment, Government of India, New Delhi, 2-8 February, 1984, at New Delhi; (iii) Discussion seminar on "Small group ethnology and welfare strategy", jointly organised by Anthropological Survey of India and Bihar Tribal Welfare Research Institute, Ranchi, on 27 February 1984, at Ranchi; (iv) Seminar on Problems of Pre-Agricultural Committee, Calcutta, 31 March 1984, organised by the Anthropological Survey of India, Calcutta.

Debashis Bhattacharyya, Aniruddha Chakrabarti, Arun Chatterjee and Shyamal Mukhopadhyay, (Sociology) attended the International Conference on 'Man and Environment', Calcutta 6-9 December 1983, sponsored by the Indian Anthropological Society (cosponsored—Indian Statistical Institute, Calcutta, Anthropological Survey of India, and International Association of Human Biologists, England). All of them individually presented papers in the above international conference."

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Dr. L. S. Bhat (Planning—Delhi) : Participated in a workshop on Information system for planning at the Block level organised jointly by the Town and Country Planning Organisation Delhi and the Department of Geo-engineering and Resources Development, Andhra University at Waltair during May 28-30, 1983.

(ii) Participated in the 4th Indo-British Seminar on "Rapid Social and Economic change in a Regional Framework" organised by the University of Birmingham, U. K. during September 14-28, 1983. Dr. Bhat was co-ordinator of the Seminar for Indian participants. The seminar discussed the above theme and identified areas of common interest among the Indian and the British Geographers.

(iii) Participated in a workshop in Indicators of Equity in Education organised by the National Institute of Educational Planning and Administration, New Delhi during October 24-28, 1983.

(iv) Participated in the meeting of the UGC panel in Geography to review the research and teaching programme in Geography at the graduate and post-graduate levels in Universities during September 11-12, 1983.

(v) Dr. Bhat participated in the Junior Statisticians training programme organised by the CSO during June 29-30, 1983 and gave two lectures on regional planning and data requirements.

(vi) Dr. Bhat gave six lectures on Geography of health and diseases to the trainees participating in the workshop organised by the Indian Council of Medical Research, New Delhi during April 27- May 7, 1983.

(vii) Participated in the 5th Indian Geography Congress of the National Association of Geographers, India held at the Aligarh Muslim University, Aligarh during December 26-28, 1983 and contributed a paper on "Geography and Planning".

Dr. Bhat served as Chairman, Commission on Environment and Development constituted by the National Association of Geographers India.

(viii) Participated in a seminar on "Role of Universities in Rural Development organised by the University of Poona during January 4-7, 1984.

Shri S. M. Kansal (Planning Delhi) : Participated in the panel discussions on the international comparison of real income and product and its impact on the developing countries at the "National Income Conference held in Calcutta in November, 1983.

Dr. K. Saradamoni (Planning Delhi) : (i) Talked on "Recent Women's Studies in India" at "Contemporary India Seminar, Southern Asian Institute, Columbia University, as guest member of the Contemporary India Seminar, on May 3rd, 1983.

(ii) Talked on "Caste and Class in India" at the Centre for African Studies, Stony Brook College, New York, on July 7th, 1983.

(iii) Presented "A report on IRRRI Conference" at CWDS, New Delhi on October 12, 1983.



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(u) Attended Workshop on Family organised by CWDS at India International Centre, New Delhi on November, 10-12.

Shri J. Verghese (Library, Documentation and Information Science) delivered a keynote lecture on micrographics in the national seminar on 'New Trend in Information Technology' held at Central Drug Research Institute, NICDAP, Lucknow from January 27 to 29, 1984. He also attended a two-day Workshop on Word Processing conducted by International Systems Service from 5 to 6 August, 1983.

Shri S. Roy (Library, Documentation and Information Science) attended the Indian Library Association Conference on 'Continuing Education for the Librarians' held on 12 February, 1984 at Delhi.

Shri N. R. Nathan (Library, Documentation and Information Science) attended the Indian Library Association Conference on 'Continuing Education for the Librarians' held on 12 February, 1984 at Delhi.

Dr. G. Bhattacharyya (DRTC) delivered the following extension lectures on (i) "Methodology of Studying subjects for information work and service" at the Polytechnic for Women, Department of Library Science, Bangalore on 12 April, 1983, (ii) "Library Profession" at the Polytechnic for Women, Department of Library Science, Bangalore on 29 August, 1983, (iii) "General theory of subject indexing" at the Polytechnic for Women, Department of Library Science, Bangalore on 5 October, 1983, (iv) "Industrial Information systems and services" at the Institution of Engineers, Bangalore on 8 December, 1983, (v) "Evolution of subject indexing Languages" at the Polytechnic for Women, Department of Library Science, Bangalore on 8 February, 1984 and (vi) "POPSI-specific" at the University of Delhi, Department of Library and Information Science, Delhi, 24 February, 1984.

Dr. G. Bhattacharyya (DRTC) attended the 29th All India Library Conference, Mysore held on 7 December, 1983 sponsored by the Indian Library Association, Delhi and acted, on invitation, as the Chairman of the Session on "Technical Services in Libraries in India."

Dr. M. A. Gopinath (DRTC) on invitation, acted as the Rapporteur-General of the Conference of the 29th All India Library Conference, Mysore, on 5-9 December, sponsored by the Indian Library Association, Delhi.

Dr. M. A. Gopinath (DRTC) attended the 19th IASLIC Conference, New Delhi on 28 December, 1983 sponsored by Indian Association of Special Libraries and Information Centres, Calcutta, and acted as Director of the Symposium on "Grey Literature".

Dr. M. A. Gopinath (DRTC) on invitation, acted as the Chairman of the Session on "Selection and acquisition procedures for periodical publications" at a symposium on the theme at the National Aeronautical Laboratory, Bangalore on 18 March, 1984.

Dr. I. K. Ravichandra Rao (DRTC) delivered a course of 5 lectures on "Information Retrieval" on the occasion of a seminar on "Computer applications

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to linguistics" at the Institute of Indian Languages and Indian Institute of Applied Language Science, Mysore, 6-10 December, 1983.

Dr. I. K. Ravichandra Rao (DRTC) attended the 29th All India Library Conference, Mysore, 7 December 1983, sponsored by the Indian Library Association, Delhi and acted, invitation, as the Rapporteur for the session on "Computer applications to library and information Science".

Dr. I. K. Ravichandra Rao (DRTC) delivered a series of extension lectures on "Quantitative methods for library and information science" and on "Library automation" at the Pune University, Department of Library and Information Science, Pune, 23 to 27 February, 1984.

Shri F. J. Devadason (DRTC) delivered an extension lecture on "Computer applications in the Library and information field", Karnatak University, Department of Library Science, Dharwad, 27 December, 1983.

Shri F. J. Devadason (DRTC) delivered an extension lecture on "Library automation" at the Polytechnic for Women, Department of Library Science, Bangalore, on 17 March, 1984.

Shri S. Seetharama (DRTC) delivered a series of extension lectures on (i) Planning of Library and Information Services, (ii) Manpower of Planning, (iii) Space Planning and (iv) Financial Planning at the "Polytechnic for Women, Department of Library Science, Bangalore, 10 to 13 January, 1984.

Shri S. Seetharama (DRTC) delivered a series of extension lectures on (i) Collection development, (ii) Planning of information services, (iii) Manpower planning, (iv) Space planning, (v) Furniture and equipment planning and (vi) Financial planning at the Karnatak University, Department of Library Science, Dharwad, 22 to 24 February, 1984.

Shri S. Seetharama (DRTC) rendered advisory service in relation to the "Information consolidation projects of TERI at the Tata Energy Documentation and Information Centre, TERI, Bombay 2 to 8 January, 1984.

### 11. Ninetieth Birth Anniversary of the Late Professor P. C. Mahalanobis

In memory of the late Professor P. C. Mahalanobis, the founder of the Institute, a meeting of the workers and students of the Institute was held in the auditorium of the Institute at Baranagar on 29 June 1983. Professor Moni Mukherjee, Chairman, Centre for Studies in Social Sciences, Calcutta and former Director, Research and Training School, I.S.I. addressed the gathering.

## PART III. ADMINISTRATION AND OFFICE-BEARERS

### 12. General Administration

12.1 *Membership* : During the year 100 persons were elected as ordinary members and three as Institutional members. Ten ordinary members became life

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members. Three ordinary members resigned from membership and the membership of thirtynine ordinary members was terminated. One life member died.

The membership position as on 31st March 1984 was 718 (ordinary member 543, honorary life member 1, died on 26.4.1984, life member 158 and Institutional member 16). During the year 213 student members were enrolled.

12.2 *Annual General Meeting* : Two Annual General Meetings of the Institute were held during the year on 29 April 1983 and 13 February, 1984.

12.3 *Council Meetings* : Four meetings of the Council of the Institute were held during the year on 29 April, 1983, 8 September 1983, 7 November 1983 and 13 February 1984.

12.4 *Finance Committee Meetings* : Three meetings of the Finance Committee were held during the year on 23 April 1983, 8 September 1983 and 27 January 1984.

A list of the names of the President of the Institute and Chairman and Members of the Council of the Institute together with the names of the members of the different committees is given in Chapter 13.

12.5 *Institute staff* : The following senior members of the staff have been functioning in the posts mentioned during the year.

- (1) (a) Dr. B. P. Adhikari, M.Sc. (Cal.), Dr. es. Sc. (Paris), Director up to 19th October, 1981.
- (b) Dr. A. Maitra, M.Sc. (Stat. Bombay), Ph.D. (Stat. Berkeley), Officiating Director from 8th November, 1983.
- (2) Shri Ajoy Kumar Adhikari, Dean of Studies.
- (3) Dr. B. Ramachandran, Head of Delhi Centre.
- (4) (a) Shri N. Srinivasan, Officer-on-Special Duty (Administration & Finance)
- (b) Shri B. Bose, Officiating as Officer-on-Special Duty (during 11th April, 1983 to 8th November 1983).

12.6 *New Appointments* : The following faculty staff joined the Institute during the year :

- (1) Dr. S. Nag, Lecturer, Stat-Math Division
- (2) Dr. Kansari Haldar, Lecturer, Electronics Unit
- (3) Shri Sovan Mukherjee, Computer Engineer, CSU
- (4) Dr. Partha Pratim Mazumdar, Lecturer, CSU

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- (5) Shri Ashoke Rn. Basu, Assistant Librarian, Library
- (6) Shri R. B. Bapat, Lecturer, Stat-Math Division
- (7) Dr. N. S. Narasimha Sastry, Lecturer, Stat-Math Division
- (8) Dr. Subhasish Gangopadhyay, Lecturer, Planning Unit, Delhi Centre
- (9) Smt. Dalia Set, Trainee Programmer, CSU
- (10) Shri Ashis Chakraborty, Programmer, CSU
- (11) Dr. N. S. S. Narayana, Associate Professor, Bangalore Centre
- (12) Dr. P. S. S. N. V. P. Rao, Lecturer, CSU
- (13) Shri Ashish Kr. Chakraborty, Technical Officer Gr. III, SQC Pune
- (14) Shri U. H. Acharya, Technical Officer Gr. III, SQC Coimbatore.
- (15) Dr. Arun Kr. Sengupta, Lecturer, ERU
- (16) Shri Ashis Kr. Chakraborty, Project Linked Programmer, ERU
- (17) Dr. Atul Sharma, Professor, Planning Unit, Delhi Centre

12.7 *Re-employment* : The following staff joined the Institute on re-employment :

- (1) Shri K. B. Goswami, Publication Officer, Publication Office.

12.8 *Retirement* : (1) Shri C. R. Chattoraj, Executive Officer, Calcutta

- (2) Shri R. G. Narasimham, Sr. Technical Officer, SQC Bombay

- (3) Shri Bimal Chakraborty, Sr. Lecturer, Demography Unit.

12.9 *Resignation and termination of service* : The following staff left the Institute on resignation/termination of service :

- (1) Shri Kalyan Saha, Assistant Librarian, Library
- (2) Dr. N. R. Achutan, Technical Officer, SQC T & P
- (3) Shri P. A. Chandra Sekhar Rao, Executive Officer, Bangalore Centre

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- (4) Dr. Ajit Paul, Computer Engineer, Electronics Unit
- (5) Shri Somen Chakraborty, Engineer Civil, Gr. I, Engineering Unit.
- (6) Shri Goutam Chatterjee, Technical Officer, Gr. III, SQC, Madras.

### 12.10 Staff position as on 31 March, 1984 :

- (1) Scientific and Technical Group — 516
- (2) Non-Scientific Group — 1054

### 12.11 Land and Construction

(a) *Calcutta : Staff quarters at Delux Garden* : Civil, sanitary, plumbing and electrical work in respect of 48 units low-paid staff quarters at Delux Garden have been completed. Civil work in the 4th block of another 16 units was entrusted to M/s M. R. S. Jardanain. Civil work has been completed. Work relating to electrical wiring was in progress at the end of the year.

The Institute has approached the Calcutta Electric Supply Company Ltd. for electricity connection to these new buildings. The quarters will be allotted for occupation as soon as power supply connection is given.

(2) *Sinking of Tube-well* : In order to augment the water supply to the new Library building and the newly built staff quarters in Delux Garden sinking of a deep tube-well was planned. Further it was necessary to lay pipe lines to connect the tube-well to the staff quarters. Two separate contracts have been awarded—one for sinking tube-well to M/s Imperial Tube-well Company and another for laying pipe lines to M/s Jardanain. Work in this respect is expected to be completed by September 1984.

(3) *Faculty staff quarters* : Two blocks of eight quarters each are being constructed in the campus of the Institute at 205 B. T. Road, civil work in respect of one of the blocks has been completed. Sanitary, plumbing and electrical wiring work was in progress at the end of the year. External painting work of the first block has also been taken.

The Civil work in respect of the second block was still in progress. The quarters are expected to be ready by the end of October, 1984.

(4) *Administrative Building at 202 B. T. Road* : A three storey building to accommodate the offices of the units of the Administration is being constructed. M/s S. D. P. & Company have been awarded the contract for the work estimated at Rs. 34,00,000/-. A portion of the pond at 202 B. T. Road has been filled up for this purpose.

(5) *Installation of lift in new Library Building* : Orders have been placed with M/s Otis Ltd., for installation of two passenger lifts in the new Library Building. The lifts will move upto the ninth floor of the building. Installation work will be started after completion of the construction of the lift pit upto the ninth floor.

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(6) *Medical Welfare Unit* : Construction of a separate building to house the Medical Welfare Unit of the Institute has been proposed. The proposal has been approved by the Government. The Institute's consultant architects M/s Ghosh, Bose and Associates have been entrusted with the job of the preparation of the appropriate plan and tender documents. Contract for the job is expected to be awarded soon.

(b) *Delhi : Staff quarters* : 9 'B' type quarters for faculty staff and 32 'C' type quarters for low paid staff are being constructed in Delhi. The work relating to the construction of the 9 'B' type quarters has been completed in all respects and the quarters are ready for occupation. The work in respect of 32 'C' type quarters is still in progress.

In the meantime contract for construction of 6 more 'A' type quarters and 6 'B' type quarters has been awarded. The construction work has already been started and the quarters are expected to be ready in about a year's time.

(c) *Bangalore : Academic Block Building* : The construction of the academic block building is nearing completion. Sanitary and plumbing work and electrical wiring work have been completed. The building is expected to be ready for use by December, 1984.

(2) *Staff Quarters* : 10 units of 'A' type quarters, 4 units of 'B' type quarters and 12 units of 'C' type quarters are being constructed. Contract for the construction of staff quarters has been awarded to M/s Byrava Civil Engineering Works. The quarters are expected to be ready for occupation by the end of the year 1984-85.

(3) *Installation of Transformer Sub-station* : An electrical transformer has been installed.

(4) *Hostel Building* : A proposal for construction of a hostel building has been approved by the Government. M/s K. P. Padmanabha, the consulting Architects' firm is preparing plans and tender documents for the hostel block for which contract will be awarded soon.

(d) *Hyderabad : Office Building and Staff Quarters* : The proposal for construction of an office building and staff quarters on the site belonging to the Institute at Hyderabad has been approved. The estimated cost of construction is 40 lakhs. Plans for construction has been submitted by the Architect's Firm and tender documents are being prepared.

13. List of President, Chairman and Members of the Council,  
Members of the Committees of the Council and Academic Council.

*President* : Shri Subimal Dutta, ICS (Retd.)

*The Council*

1. *Chairman* : Shri P. N. Haksar, M.Sc., Bar-at-Law, IFS (Retd.)

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Representatives of Government of India (4)

2. (i) Dr. K. C. Seal, Director-General and Additional Secretary,  
Department of Statistics, Ministry of Planning
3. (ii) Shri M. D. Pal, Joint Secretary to the Government of India, Ministry of  
Finance, Department of Expenditure
4. (iii) Dr. (Mrs.) A. R. Rajeshwari, Director, Department of Science and  
Technology, Technology Bhavan
5. (iv) Shri C. V. Rao, Principal Adviser, Department of Statistical Analysis &  
Computer Services, Reserve Bank of India.

*Scientists not employed in the Institute (7)*

*Representative of ICSSR (1)*

6. Professor Bhabatosh Datta .

*Representatives of INSA (4)*

7. (i) Professor M.S. Narasimhan, Senior Professor, Tata Institute of Fundamental  
Research, Bombay.
8. (ii) Professor S. S. Shrikhande, Director, Mehta Research Institute, Allahabad.
9. (iii) Professor Asok Ghosh, Sir Nilratan Sircar Professor of Zoology,  
Department of Zoology, Calcutta University.
10. (iv) Dr. S. C. Bhattacharya, Director, Bose Institute, Calcutta.

*Scientists Co-opted by the Council (2)*

11. (i) Professor B. D. Nag Chowdhury.
12. (ii) Professor V. Rajaraman, Computer Centre, Indian Institute of Science,  
Bangalore.

*Elected representatives of the Institute Members not employed  
in the Institute (2)*

13. (i) Dr. P. K. Bose, M. Sc., Ph.D. F.S.S. (London), Formerly Centenary Professor  
and Head, Department Statistics, University of Calcutta.
14. (ii) Shri S. B. Sen, Planning Adviser, Government of West Bengal.

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*Elected representatives of the employees of the Institute (2)*

15. Dr. Asru Kumar Chaudhuri, Representative of scientific workers of the rank below that of Associate Professors or equivalent.
16. Shri Abhijit Roy Chowdhury, Representative of non-scientific workers.

*Officers of the Institute (ex-officio) (0)*

- 17.a. (i) Dr. B. P. Adhikari, (Director upto 19.10.1983)
- 17.b. (i) Dr. A. Maitra, (Officiating Director from 8.11.1983)

*Professor-in-charge of Scientific Divisions (5)*

18. (ii) Dr. A. K. Roy, Theoretical Statistics and Mathematics Division.
19. (iii) Shri A. K. Halder, Applied Statistics, Surveys & Computing Division.
20. (iv) Dr. D. K. Bose, Social Sciences Division
21. (v) Dr. D. Dutta Majumder, Physical & Earth Sciences Division
22. (vi) Dr. K. C. Malhotra, Biological Sciences Division
23. (vii) Shri C. A. Setty, Head, Statistical Quality Control and Operations Research Division.
24. (viii) Dr. B. Ramachandran, Head, Delhi Centre.
25. (ix) Shri A. K. Adhikari, Dean of Studies.

Shri N. Srinivasan, Officer-on-Special Duty.

(Administration & Finance) acted as non-member Secretary.

*List of Members of the Academic Council*

1. (a) Dr. B. P. Adhikari *Chairman upto 19.10.1983*  
(b) Dr. A. Maitra *Chairman from 8.11.1983*
2. Shri A. K. Adhikari, Dean of Studies *Convener*
3. Dr. C. R. Rao (Jawaharlal Nehru Professor)



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### *Theoretical Statistics and Mathematics Division*

4. Dr. A. K. Roy, 5. Dr. B. P. Adhikari, 6. Dr. E. M. Paul, 7. Dr. G. Jogesh Babu, 8. Dr. B. V. Rao, 9. Dr. S. B. Rao, 10. Dr. J. K. Ghosh, 11. Dr. T. J. Rao, 12. Dr. Somesh Dasgupta, 13. Dr. K. Sikdar, \*14. Dr. Somesh Bagchi, 15. Dr. B. Ramachandran, 16. Dr. K. R. Parthasarathy, 17. Dr. L. S. Bhat, 18. Dr. B. S. Minhas, 19. Dr. S. K. Mitra, 20. Dr. T. Parthasarathy, 21. Dr. B. S. L. P. Rao, \*22. Dr. K. B. Sinha, 23. Dr. G. A. Swarup, 24. Dr. T. V. Hanurav.

### *Applied Statistics, Surveys and Computing Division*

25. Dr. J. Roy, 26. Dr. B. N. Mukherjee, 27. Dr. B. C. Das, 28. Dr. Arijit Chowdhury, 29. Dr. Subir Bandyopadhyay, 30. Dr. S. K. Pal, \*31. Shri C. H. Sastry, \*32. Dr. Shibdas Bandyopadhyay.

### *Social Science Division*

33. Dr. D. K. Bose, 34. Dr. N. Bhattacharya, 35. Dr. Ashok Mitra, 36. Dr. S. Chatterji, 37. Dr. Partha Nath Mukherjee, 38. Dr. Sanjit Bose, 39. Dr. M. N. Pal, 40. Dr. D. Dasgupta, 41. Dr. Rabin Mukherjee, 42. Dr. S. K. Chakraborty, 43. Dr. (Miss) M. Mukherjee, \*44. Dr. Suraj Bandyopadhyay, \*45. Dr. Dipankar Coondoo, 46. Dr. V. K. Chetty, 47. Prof. Atul Sarma, 48. Dr. N. S. Iyenger.

### *Biological Science Division*

49. Dr. K. C. Malhotra, 50. Prof. S. K. Roy, 51. Dr. Amitava Basu, 52. Prof. R. L. Brahmachari, 53. Dr. K. Pakrasi, \*54. Shri S. K. Bhattacharya, \*55. Dr. K. Pakrasi.

### *Physical & Earth Sciences Division*

56. Dr. D. Dutta Majumder, 57. Dr. Ambarish Ghosh, 58. Dr. T. Roy Chowdhury, 59. Prof. P. Bandyopadhyay, 60. Shri Ashis Sen, 61. Dr. S. L. Jain, 62. Dr. M. K. Chakraborty, \*63. Dr. Raj Kumar Roychowdhury, \*64. Dr. Ajit Kumar Pal.

### *SQC and OR Division*

65. Shri C. A. Setty, 66. Shri N. Srinivasan, 67. Dr. K. G. Ramamurthy, 68. Shri S. M. Sundara Raju, 69. Shri R. G. Narashimhan, 70. Shri V. Narayana, 71. Shri C. R. Prasad, 72. Shri A. N. Nankana, 73. Shri B. K. Sarkar, \*74. Shri P. K. Basu \*75. Shri V. Narayana.

### *Library, Documentation and Information Science Division*

76. Dr. T. Misra, 77. Prof. A. Neelamegham, 78. Prof. G. Bhattacharya.

\* Representatives selected by the Divisional Committees of Scientific workers.

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*Member-Secretary, ISEC, Calcutta*

79. Dr. N. Bhattacharya (same as sl. no. 34)

*Executive-in-charge, SQC T & P Unit*

80. Shri R. J. Pandey

*Secretary Examinations Committee*

81. Shri Taresh Maitra

**List of Members of Different Committees of the Institute**

**1. Finance Committee :**

1. Director (*Ex-Officio Chairman*), 2. Dr. P. K. Bose, Formerly Centenary Professor and Head, Department of Statistics, University of Calcutta, 3. Dr. Bhabatosh Dutta, 4. Dr. J. Roy, 5. Shri N. Srinivasan, 6. Dr. K. C. Seal, 7. Shri N. K. Panda, 8. Dr. B. Ramachandran, 9. Dr. Ambarish Ghosh, 10. Dr. D. Dutta Majumder, 11. Shri Tapan Basu Mallick.

Shri P. K. Chatterjee, Senior Accounts Officer, Indian Statistical Institute, (Non-member Secretary)

**2. Journal Committee :**

*Editors : Sankhyā, Series A and B*

Dr. C. R. Rao and Dr. G. Kallianpur

*Co-editors : Series A*

1. Dr. J. K. Ghosh, 2. Dr. G. Jogesh Babu, 3. Dr. S. K. Mitra, 4. Dr. K. R. Parthasarathy, 5. Dr. B. Ramachandran, 6. Dr. Bimal Kumar Sinha.

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## INDIAN STATISTICAL INSTITUTE

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## FIFTYSECOND ANNUAL REPORT : 1983-84

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## INDIAN STATISTICAL INSTITUTE

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# INDIAN STATISTICAL INSTITUTE

FIFTYSECOND ANNUAL REPORT : 1963-64

## Part IV. Statement of Accounts and Auditors' Report for the year 1963-64

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# INDIAN STATISTICAL INSTITUTE

FIFTYSECOND ANNUAL REPORT : 1983-84

## Part IV. Statement of Accounts and Auditors' Report for the year 1983-84

### AUDITORS' REPORT

We have audited the attached Balance Sheets of Indian Statistical Institute as at March 31, 1984 for

- (a) General Account and
- (b) Other Funds

and the annexed relative Income & Expenditure Accounts for the year ended on that date.

The Balance Sheets and the Accounts are in agreement with the books and records maintained by the Institute and produced to us. According to information and explanations given to us, the said Balance Sheets read with Notes appearing there on and subject to Notes I (Fixed Assets), 4 (Loans and Advances) and 5 (Additional D.A. Deposit with Regional Provident Fund Commissioner) of Schedule X, and also subject to the remarks given below, give a true and fair view of the state of affairs of the Institute.

The remarks referred to above are :

1. For the purpose of Income & Expenditure Account, the allocation of expenses between plan and non-plan as made by the Institute have been accepted by us.
2. General observations :
  - (a) The system of Internal Audit prevailing in the Institute is in our opinion inadequate and should be strengthened.
  - (b) During the year under audit, the Institute disposed components of certain Fixed Assets vide column 3 of Schedule I, with prior approval of the Government of India. The sales proceeds stand merged in General Fund Accounts.

10, Old Post Office Street,  
Calcutta  
The 20th December, 1984

D. P. CHATTERJEE & Co.  
Chartered Accountants

INDIAN STATISTICAL INSTITUTE

BALANCE SHEET

As at 31st March 1983 Rs. P.	Fund and Liabilities	As at 31st March 1984 Rs. P.
	<b>1. GENERAL FUND :</b>	
6,43,87,776.32	As per Schedule VII .. .. .	7,38,55,668.90
	<b>2. OTHER FUNDS :</b>	
55,73,741.69	As per Schedule IV contra .. .. . (Excluding Director's Contribution Fund, Indian Statistical Institute Contributory Provident Fund and General Provident Fund).	67,38,454.78
	<b>3.1 GRANT-IN-AID FOR FLOOD ADVANCE TO STAFF :</b>	
7,20,000.00	As per last account .. .. .	7,20,000.00
	<b>3.2 GRANT-IN-AID FOR HOUSE BUILDING ADVANCE TO STAFF :</b>	
23,50,000.00	As per last account .. .. . 23,50,000.00 Add : Received during the year .. .. . 5,90,000.00	28,50,000.00
	<b>4. ROCKFELLER FOUNDATION GRANT PER CONTRA :</b>	
1,182.39	As per last account .. .. .	1,182.39
	<b>5. DEPOSITS AND OTHER LIABILITIES :</b>	
43,03,006.62	As per Schedule VIII .. .. . 48,97,488.51 ADDITIONAL EMOLUMENTS COMPULSORY DEPOSIT .. .. . 81,058.63	49,78,545.04
	<b>6. EXCESS OF RECEIPTS OVER EXPENDITURE IN RESPECT OF CAPITAL EXPENDITURE GRANT :</b>	
79,59,949.78	As per Schedule IX .. .. .	71,94,044.18
	<b>7. EXCESS OF RECEIPTS OVER EXPENDITURE IN RESPECT OF PLAN REVENUE EXPENDITURE GRANT RECEIVED FROM GOVERNMENT OF INDIA :</b>	
2,83,642.03	As per last account .. .. . 2,83,642.03 Add : Transfer from Income and Expenditure Account .. .. . 6,588.51	2,90,230.54
2,83,642.03	Less : Transferred from Claim Receivable Account .. .. . 2,90,230.54	—
	<b>8. EXCESS OF RECEIPTS OVER EXPENDITURE IN RESPECT OF NON-PLAN REVENUE EXPENDITURE GRANT RECEIVED FROM GOVT. OF INDIA :</b>	
—	Excess of Income over Expenditure for the current year .. .. . 6,02,307.35 Less : Excess of Expenditure as per last account .. .. . 4,82,688.38	1,20,117.97
—	Less : Amount transferred from Claim Receivable Account as per contra .. .. . 1,20,117.97	—
	<b>9. EXCESS OF RECEIPTS OVER EXPENDITURE IN RESPECT OF MISC. PROJECTS AND ACTIVITIES :</b>	
11,48,608.48	As per Schedule V .. .. .	9,40,098.12
	<b>10. LIABILITIES FOR BANK GUARANTEE, PAY ORDERS AND NATIONAL SAVINGS CERTIFICATES LODGED BY OUTSIDE PARTIES PER CONTRA :</b>	
82,000.00	.. .. .	82,000.00
	<b>11. NOTES ON ACCOUNTS :</b>	
8,68,10,104.22	As per Schedule X enclosed	9,73,68,991.51

P. K. CHATTERJEE  
Senior Accounts Officer

N. SRINIVASAN  
Officer-on-Special Duty  
(Administration & Finance)

A. MAITRA  
Director  
Indian Statistical Institute



FIFTYSECOND ANNUAL REPORT : 1983-84

AS AT 31ST MARCH 1984

As at 31st March 1983		Property and Amots		As at 31st March 1984	
Rs.	P.			Rs.	P.
		1.	<b>FIXED ASSETS :</b>		
5,89,99,540.56			As per Schedule I .. .. .		6,80,31,331.50
		2.	<b>INVESTMENT AT COST</b> .. .. .	41,11,059.31	
			Interest accrued on above .. .. .		
43,38,019.91			As per Schedule II .. .. .	5,98,140.10	46,19,199.41
		3.	<b>STOCK OF BUILDING MATERIALS ETC.:</b>		
17,03,063.80			At cost .. .. .		16,26,709.16
			(Including materials purchased for construction work Rs. 4,78,618.17 and salvaged materials Rs. 672.70).		
68,003.32		4.	<b>ADDL. DEARNESS ALLOWANCES DEPOSITED WITH REGIONAL PROVIDENT FUND COMMISSIONER</b> .. .. .		68,003.32
		5.	<b>LOANS AND ADVANCES :</b>		
68,39,154.86			As per Schedule III .. .. .		67,66,604.02
4,36,000.00		6.	<b>AMOUNT RECEIVABLE :</b> (Short release of Grant-in-Aid under Plan Revenue). 4,36,000.00		
			Less : Transferred to Plan. Rev. surplus 2,90,230.84		
			.. Transfd. to Non-plan Rev. surplus 1,50,117.97	4,10,348.81	55,851.19
		7.	<b>NET ASSET OF OTHER FUNDS :</b>		
55,72,761.80			As per Schedule IV per contra .. .. .		67,38,454.78
			(Excluding Director's Contribution Fund, Indian Statistical Institute Contributory Provident Fund and General Provident Fund).		
		8.	<b>EXCESS OF EXPENDITURE OVER RECEIPTS IN RESPECT OF NON-PLAN REVENUE EXPENDITURE :</b>		
4,82,689.38			As per last account as per contra .. .. .		
		9.	<b>EXCESS OF EXPENDITURE OVER RECEIPTS IN RESPECT OF MISC. PROJECTS AND ACTIVITIES ON BEHALF OF THE GOVT. OF INDIA &amp; OTHER BODIES :</b>		
18,80,191.11			As per Schedule V .. .. .		28,82,640.61
82,000.00		10.	<b>BANK GUARANTEE PAY ORDERS AND NATIONAL SAVINGS CERTIFICATES LODGED BY OUTSIDE PARTIES PER CONTRA</b> .. .. .		82,000.00
		11.	<b>CASH AND BANK BALANCE :</b>		
		.1	<b>Cash in hand :</b>		
			As per Schedule VI .. .. .	37,462.63	
		.2	<b>At Banks on Current Account with :</b>		
			(i) American Express International Banking Corporation, Calcutta for Rockefeller Foundation Grant : .. .. .		
			As per contra .. .. .	1,182.20	
			(ii) Other Banks as per Schedule VI .. .. .	66,70,761.24	67,18,407.20
5,68,10,104.22					67,72,50,991.31

This is the Balance Sheet referred to in our report of even date

10 Old Post Office Street,  
Calcutta-700 001.  
20th December, 1984.

D. P. CHATTERJEE & CO.  
Chartered Accountants

INDIAN STATISTICAL INSTITUTE

INCOME AND EXPENDITURE ACCOUNT

Previous year				Expenditure	Current year			
Plan		Non-plan			Plan		Non-plan	
Rs.	P.	Rs.	P.		Rs.	P.	Rs.	P.
90,18,869.83		2,19,09,954.85		1. Salary & allowances .. .. .	27,75,624.95		2,40,76,668.93	
95,283.56		8,32,140.15		2. Overtime allowance .. .. .	1,85,764.59		9,49,746.13	
—		619.56		3. Payment of leave vacancies .. .. .	—		—	
2,318.59		5,578.41		4. Children Education Allowance .. .. .	2,067.00		2,608.00	
64,024.49		7,56,263.75		5. Leave Travel Concession .. .. .	22,068.00		3,29,669.31	
8,837.49		2,40,480.80		6.1 Reimbursement of medical expenses .. .. .	10,161.78		2,68,365.34	
—		4,38,099.82		6.2 Expenses on medical welfare to staff, students, research scholars, visiting professors etc. .. .. .	—		4,58,661.19	
1,34,922.31		10,36,128.90		7. Employer's contribution to Provident Fund .. .. .	1,13,475.68		11,96,963.37	
—		3,82,634.97		8. Gratuity payment .. .. .	—		6,39,434.69	
5,05,038.02		5,64,172.12		9. Travelling expenses .. .. .	3,28,034.66		7,74,165.00	
1,29,869.19		2,06,779.71		10. Visiting professors, foreign scientists, fellows & experts .. .. .	1,39,534.00		2,68,647.35	
3,42,121.37		11,14,153.19		11. Scholarship, stipend and other assistance to trainees .. .. .	3,08,184.48		11,11,420.82	
—		100.00		12. Prize to workers for initiative .. .. .	—		—	
1,808.97		3,04,682.09		13. Printing and publication .. .. .	46,972.36		3,68,604.62	
32,832.61		2,41,075.65		14.1 Society type activities (entertainment and conference expenses) .. .. .	25,781.10		1,29,791.29	
1,250.65		55,285.00		14.2 Examination expenses .. .. .	640.00		57,998.45	
4,77,368.35		16,51,962.30		15. Books, Journals, Microfilm, Photo, Binding etc. .. .. .	4,69,153.84		20,39,304.32	
19,930.74		5,11,766.95		16. Repairs, Replacement & Maintenance of Office equipment, Accessories and Computer .. .. .	17,609.41		7,43,306.22	
1,16,313.98		12,83,545.60		17. Stationeries, Consumable Stores, Advertisement, Insurance, Labour charges, Conveyance and petty expenses etc. .. .. .	73,576.67		14,10,737.41	
80,80,765.15		3,19,18,922.01		Carried over: .. .. .	44,66,379.07		3,45,35,904.14	

FIFTYSECOND ANNUAL REPORT : 1983-84

FOR THE YEAR ENDED 31st MARCH 1984

Previous year			Current year			
Plan		Non-plan	Income	Plan		Non-plan
Rs.	P.	Rs. P.		Rs.	P.	Rs. P.
1. Grant-in-aid from Government of India :						
.1 For Non-plan current expen. (includes reimbursement of Rs. 5,80,000/- on a/c. of air fare of foreign scientists 1981-82) .. .. .						
—		3,42,00,000.00			—	3,67,27,000.00
—		5,00,000.00			—	5,00,000.00
		<u>3,38,00,000.00</u>				<u>3,82,27,000.00</u>
.2 For Plan current expenditure :						
42,84,000.00		—	Amount received during the year	49,75,000.00		
4,36,000.00		—	Add : Amount receivable from Government of India		48,75,000.00	
2. Received from Non-Government Sources :						
.1 In respect of SQC Membership fees, Training, Service Charges etc. .. .. .						
				13,23,714.72		
—		7,00,000.00	Less : Transferred to SQC Development Fund .. .. .	0,23,714.72		7,00,000.00
.2 Internal Receipts :						
—		28,117.04	a) Membership subscription .. .. .			41,720.49
—		2,10,836.83	b) Fees for Training course and sale proceeds of Syllabus etc. .. .. .			2,43,189.41
—		10,473.00	c) Examination fee and other Receipts .. .. .			13,346.00
—		14,177.83	d) Receipts from sale of produce at Giridih Experimental Farm etc. .. .. .			21,088.64
—		25,436.16	e) Service charges for work done by Psychometry, Computer Science Unit etc. .. .. .			23,600.00
—		3,67,989.06	f) Miscellaneous receipts .. .. .			6,48,109.82
<u>47,30,000.00</u>		<u>3,61,66,830.22</u>	Carried over : .. .. .	<u>48,75,000.00</u>		<u>3,96,17,920.30</u>

INDIAN STATISTICAL INSTITUTE

INCOME AND EXPENDITURE ACCOUNT

Previous year		Expenditure	Current year	
Plan	Non-plan		Plan	Non-plan
Rs. P.	Rs. P.		Rs. P.	Rs. P.
39,50,768.15	3,18,18,322.01	Brought forward : .. ..	44,59,379.07	3,48,35,904.14
		18. Non-salary Contingencies :		
1,00,507.26	14,77,089.72	.1 Postage, Freight, Electricity, Telephone charges etc. .. ..	45,390.92	16,45,665.31
—	22,000.00	.2 Audit fee and expenses .. ..	—	56,733.50
- 899.30	9,194.14	.3 Interest and Bank charges .. ..	816.02	10,967.77
3,01,692.05	9,39,260.25	19. House rent, Rates and Taxes .. ..	3,54,505.75	11,40,568.11
815.00	5,51,918.56	20. Repair and/or maintenance of Building, land etc. and petty construction etc. .. ..	—	6,48,381.72
89,285.89	3,46,835.40	21. Transport .. ..	79,166.21	3,68,103.14
5,034.20	2,15,158.48	22. Workers' welfare and amenities (excluding reimbursement of Medical expenses) .. ..	9,184.22	3,19,033.13
—	750.00	23. Director's Discretionary expenses .. ..	—	260.00
—	1,80,082.92	24.1 Laboratory stores, Tools and Minor accessories .. ..	—	2,48,775.92
—	43,152.09	.2 Materials and other charges for Experimental farming and Rice Research Scheme .. ..	—	60,209.97
2,71,022.35	52,262.65	25. Excess of Income over Expenditure transferred to Balance Sheet .. ..	6,688.81	6,02,807.15
<u>47,20,000.00</u>	<u>3,51,65,830.22</u>		<u>49,75,000.00</u>	<u>3,99,17,929.36</u>

NOTES : (a) This account does not include the transactions in respect of Population Research Centre, ISEC, Colombo Plan, SCAAP, CFTC Fellowship, Receipts and Expenditure of reimbursable projects of other sponsoring authorities as well as Income and Expenditure of other Funds which are exhibited in details in Schedule IV, V, VI and Annexure I.

(b) An amount of Rs. 20,85,015.21 being depreciation on fixed assets has been adjusted in General Fund.

(c) Income are accounted on cash basis and in the absence of prior period adjustment account respective heads of expenditure accounts of earlier years transactions have been debited.

P. K. CHATTERJEE  
Senior Accounts Officer

N. SRINIVARAN  
Officer-on-Special Duty  
(Administration & Finance)

A. MATTA  
Director  
Indian Statistical Institute

FIFTYSECOND ANNUAL REPORT : 1983-84

FOR THE YEAR ENDED 31st MARCH 1984

Previous year				Current year				
Plan		Non-plan		Income	Plan		Non-plan	
Rs.	P.	Rs.	P.		Rs.	P.	Rs.	P.
47,30,000.00		3,51,56,830.22		Brought forward :	..	..	49,75,000.00	3,99,17,929.38
—		—		3. Excess of Expenditure over Income transferred to Balance Sheet	..	..	—	—
<u>47,30,000.00</u>		<u>3,51,56,830.22</u>					<u>49,75,000.00</u>	<u>3,99,17,929.38</u>

INDIAN STATISTICAL INSTITUTE

SCHEDULE

Sl. No.	Particulars	SCHEDULE OF FIXED ASSETS					
		Written down value as on 31st March 1953		Deletions/adjustment made during the year		Value after deletions/adjustment (col. 2-3)	
		(1)	(2)	(3)	(4)	(5)	(6)
		Rs.	P.	Rs.	P.	Rs.	P.
<b>A. Land and Land Development :</b>							
<b>1. Calcutta :</b>							
.1	At 153, Gopal Lal Tagore Road (adjoining 203, B.T. Road) ..	65,545.90		—		65,545.90	
.2	Development of above land .. .. .	40,524.75		—		40,524.75	
.3	At 205, B.T. Road (including cost of development) ..	4,38,915.70		—		4,38,915.70	
.4	At 158, 164, 165 & 199(1), Gopal Lal Tagore Road ..	99,683.71		—		99,683.71	
.5	Development of above lands .. .. .	6,618.51		—		6,618.51	
.6	At 206, B.T. Road (including cost of development) ..	21,36,174.84		—		21,36,174.84	
.7	At 202, B.T. Road .. .. .	5,79,104.75		—		5,79,104.75	
.8	At 203 B.T. Road .. .. .	97,558.95		—		97,558.95	
.9	Bidyayatan Sarani .. .. .	50,000.00		—		50,000.00	
.10	169, Gopal Lal Tagore Road .. .. .	1,03,865.00		—		1,03,865.00	
<b>2. Giridih :</b>							
.1	Farm land .. .. .	24,175.87		—		24,175.87	
.2	Development and fencing etc. .. .. .	29,689.55		—		29,689.55	
.3	Farming development .. .. .	10,682.00		—		10,682.00	
.4	Irrigation & water supply .. .. .	28,215.00		—		28,215.00	
.5	In village "Makampur", Giridih .. .. .	1,34,838.67		—		1,34,838.67	
.6	Purchased from Smt. Prakriti Devi Gangopadhya ..	14,000.00		—		14,000.00	
.7	Roso Villa .. .. .	1,07,502.72		—		1,07,502.72	
.8	Biroja Kutir .. .. .	7,445.19		—		7,445.19	
<b>3. Delhi :</b>							
.1	Lease-hold (see note (a) below) .. .. .	24,72,764.12		—		24,72,764.12	
.2	Development of above land .. .. .	63,760.67		—		63,760.67	
.4	Baroda .. .. .	27,611.52		—		27,611.52	
.5	Bangalore (see note (b) below) .. .. .	93,819.09		—		93,819.09	
.6	Hyderabad .. .. .	1,14,385.00		—		1,14,385.00	
.7	Madras .. .. .	71,662.50		—		71,662.50	
.8	Takda Planters Club (lease-hold, Darjeeling (See note (c) below) .. .. .	16,849.52		—		16,849.52	
	<b>Sub-total: .. .. .</b>	<b>88,32,048.94</b>		<b>—</b>		<b>88,32,048.94</b>	

NOTES: (a) For lease-hold land at Delhi, lease deed has not yet been executed pending which no write off of the value could be made.

(b) Purchased out of ear-marked donation received from Statistical Publishing Society.

(c) Lease-hold land, building etc. acquired in 1954-55 for 54 years. Depreciation represents value written off @ Rs. 451.42 per year.

FIFTYSECOND ANNUAL REPORT: 1963-64

I—Contd.

As on 31st March 1964

Depreciation for the year		Net value		Additions during the year						Written down value as on 31st March 1964	
Rate %	Amount	(col. 4—5)		out of capital expenditure grant		out of current expenditure grant		total (col. 7.0+7.1)		(col. 8+7.2)	
(6.0)	(5.1)	(6)	(7)	(7.0)	(7.1)	(7.1)	(7.1)	(7.2)	(8)	(8)	(8)
	Rs. P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.
—	—	65,545.90	—	—	—	—	—	—	—	65,545.90	—
—	—	40,524.78	—	—	—	—	—	—	—	40,524.78	—
—	—	4,38,916.70	—	—	—	—	—	—	—	4,38,916.70	—
—	—	96,863.71	—	—	—	—	—	—	—	96,863.71	—
—	—	6,618.51	—	—	—	—	—	—	—	6,618.51	—
—	—	21,36,174.54	—	—	—	—	—	—	—	21,36,174.54	—
—	—	5,79,104.75	—	—	—	—	—	—	—	5,79,104.75	—
—	—	97,556.95	—	—	—	—	—	—	—	97,556.95	—
—	—	50,000.00	—	—	—	—	—	—	—	50,000.00	—
—	—	1,03,855.00	—	—	—	—	—	—	—	1,03,855.00	—
—	—	24,175.67	—	—	—	—	—	—	—	24,175.67	—
—	—	29,689.55	—	—	—	—	—	—	—	29,689.55	—
—	—	10,882.00	—	—	—	—	—	—	—	10,882.00	—
—	—	28,215.00	—	—	—	—	—	—	—	28,215.00	—
—	—	1,34,638.67	—	—	—	—	—	—	—	1,34,638.67	—
—	—	14,000.00	—	—	—	—	—	—	—	14,000.00	—
—	—	1,07,602.72	—	—	—	—	—	—	—	1,07,602.72	—
—	—	7,445.19	—	—	—	—	—	—	—	7,445.19	—
—	—	24,72,764.12	—	—	—	—	—	—	—	24,72,764.12	—
—	—	63,760.67	—	—	—	—	—	—	—	63,760.67	—
—	—	27,611.32	—	—	—	—	—	—	—	27,611.32	—
—	—	98,819.09	—	—	—	—	—	—	—	98,819.09	—
—	—	1,14,385.00	—	—	—	—	—	—	—	1,14,385.00	—
—	—	71,588.60	—	—	—	—	—	—	—	71,588.60	—
—	481.42	19,368.10	—	—	—	—	—	—	—	19,368.10	—
—	481.42	68,31,567.52	—	—	—	—	—	—	—	68,31,567.52	—
—	481.42	68,31,567.52	—	—	—	—	—	—	—	68,31,567.52	—

INDIAN STATISTICAL INSTITUTE

SCHEDULE

SCHEDULE OF FIXED ASSETS

Sl. No.	Particulars	Written down value as on 31st March 1983		Deletions/adjustment made during the year		Value after deletions/adjustment (col. 2-3)	
		Rs.	P.	Rs.	P.	Rs.	P.
	(1)	(2)		(3)		(4)	
<b>B. Buildings :</b>							
<b>1. Calcutta :</b>							
.1	Partly at 208, B.T. Road and partly at 163, Gopal Lal Tagore Road (Main Building) .. .. .	6,57,217.61		—		6,57,217.61	
.2	At 163, Gopal Lal Tagore Road .. .. .	7,95,831.68		—		7,95,831.68	
.3	At 206 B.T. Road .. .. .	16,85,881.67		—		16,85,881.67	
.4	At 206 B.T. Road .. .. .	1,20,283.18		—		1,20,283.18	
.5	Boy's Hostel at 206 B.T. Road .. .. .	22,57,629.31		—		22,57,629.31	
.6	At 202 B.T. Road .. .. .	46,798.83		—		46,798.83	
.7	Purchase of flats at Palpara Housing .. .. .	2,63,470.21		—		2,63,470.21	
<b>.8 Composite Library Building at 202 B.T. Road :</b>							
(a)	Completed Work .. .. .	73,33,417.00		—		73,33,417.00	
(b)	Work-in-progress .. .. .	31,38,642.22		—		31,38,642.22	
.9	Boundary Wall .. .. .	59,047.81		—		59,047.81	
.10	Generator's House at 203 B.T. Road .. .. .	25,993.02		—		25,993.02	
.11	At 169 Gopal Lal Tagore Road .. .. .	15,689.90		—		15,689.90	
.12	At Bidyastan Sarani, Baranagar .. .. .	7,540.89		—		7,540.89	
<b>.13 Staff Quarter at Deluxe Garden, 169 Gopal Lal Tagore Road :</b>							
	Work-in-progress .. .. .	8,72,011.13		—		8,72,011.13	
<b>.14 Construction of Faculty Building at 205 B.T. Road :</b>							
	Work-in-progress .. .. .	8,332.00		—		8,332.00	
<b>.15 Construction of Administrative Building at 202 B.T. Road :</b>							
	Work-in-progress .. .. .	8,716.00		—		8,716.00	
<b>2. Girdih :</b>							
.1	Rose Villa .. .. .	2,58,176.66		—		2,58,176.66	
.3	Health Home (see note (d) below) .. .. .	10,174.30		—		10,174.30	
<b>3. Delhi Construction :</b>							
(a)	Completed Work .. .. .	52,88,290.35		—		52,88,290.35	
(b)	Work-in-progress .. .. .	11,03,610.34		—		11,03,610.34	
.4	Hyderabad well .. .. .	1,813.78		—		1,813.78	
<b>5. Bangalore Construction :</b>							
	Work-in-progress .. .. .	7,33,865.15		—		7,33,865.15	
Sub-total: .. .. .		2,46,89,812.85		—		2,46,89,812.85	

NOTE : (d) Situated on land received as gift, the value has been ignored for the purpose of these accounts.



FIFTYSECOND ANNUAL REPORT : 1983-84

I—Contd.

AS ON 31st MARCH 1984

Depreciation for the year		Net value (col. 4-5)	Additions during the year			Written down value as on 31st March 1984 (col. 6+7.5)
Rate %	Amount		out of capital expenditure grant	out of current expenditure grant	total (col. 7.0+7.1)	
(5.0)	(5.1)	(6)	(7.0)	(7.1)	(7.2)	(8)
	Ra. P.	Ra. P.	Ra. P.	Ra. P.	Ra. P.	Ra. P.
2.5%	10,430.44	0,40,787.07	—	—	—	6,40,787.07
"	10,865.79	7,75,036.89	—	—	—	7,75,925.89
"	42,147.04	16,43,734.63	—	—	—	16,43,734.63
"	3,006.33	1,17,240.85	—	—	—	1,17,246.86
"	66,440.73	22,01,188.68	603.96	—	603.96	22,01,792.54
"	1,244.97	48,563.86	—	—	—	48,663.86
"	6,586.76	2,56,883.45	—	—	—	2,56,883.45
"	1,83,336.43	71,60,081.07	—	—	—	71,60,081.07
—	—	31,38,642.22	88,020.63	—	88,020.63	33,26,682.76
7.5%	4,423.50	64,819.22	—	—	—	64,819.22
2.5%	849.83	25,343.19	—	—	—	25,343.19
"	391.75	15,278.16	—	—	—	15,278.16
"	188.62	7,362.37	—	—	—	7,362.37
—	—	8,72,011.13	13,06,286.16	—	13,06,286.16	21,78,297.29
—	—	8,323.00	8,38,432.63	—	8,38,432.63	8,46,764.63
—	—	8,716.00	1,34,683.00	—	1,34,683.00	1,43,399.00
2.5%	6,464.43	2,61,722.24	—	—	—	2,61,722.24
"	254.36	9,919.94	—	—	—	9,919.94
"	1,22,082.28	61,61,208.10	—	—	—	61,61,208.10
—	—	11,03,610.24	28,71,330.39	—	28,71,330.39	39,74,840.63
2.5%	32.84	1,980.94	—	—	—	1,980.94
—	—	7,28,895.16	22,91,026.57	—	22,91,026.57	30,24,920.72
	4,73,670.00	2,42,16,242.79	75,30,282.24	—	75,30,282.24	3,17,46,626.03

INDIAN STATISTICAL INSTITUTE

SCHEDULE

SCHEDULES OF FIXED ASSETS

Sl. No.	Particulars  (1)	Written down value as on 31st March 1983		Deletions/adjustments made during the year		Value after deletions/adjustment (col. 2-3)	
		Rs.	P.	Rs.	P.	Rs.	P.
<b>C. Sheds &amp; Structures :</b>							
<b>1. Calcutta :</b>							
1.	203 B.T. Road and 153 Gopal Lal Tagore Road .. ..	27,828.21	—	—	—	27,828.21	—
2.	At 205 B.T. Road .. .. .	63,460.76	—	—	—	63,460.76	—
3.	At 156, 164, 185 & 166/1 Gopal Lal Tagore Road .. ..	17,052.81	—	—	—	17,052.81	—
4.	At 202 B.T. Road .. .. .	1,36,775.33	—	—	—	1,36,775.33	—
5.	At 5, R. N. Tagore Road (for UNTAA Workshop situated on rental premises) .. .. .	1,00,640.94	—	—	—	1,00,640.94	—
6.	Car Shed at 169 Gopal Lal Tagore Road .. .. .	76,383.23	—	—	—	76,383.23	—
7.	Staff Quarter at Bidyastan Sarani : Work-in-progress .. .. .	2,80,167.61	—	—	—	2,80,167.61	—
8.	Student's Hostel at 206 B.T. Road .. .. .	40,525.13	—	—	—	40,525.13	—
9.	169, Gopal Lal Tagore Road : Baranagar .. .. .	22,508.51	—	—	—	22,508.51	—
10.	Post Office at 204 B.T. Road .. .. .	188.24	—	—	—	188.24	—
11.	Bidyastan Sarani, Baranagar .. .. .	437.41	—	—	—	437.41	—
<b>2. Girdih :</b>							
1.	Petty Construction .. .. .	22,506.09	—	—	—	22,506.09	—
2.	Staff Quarter : Work-in-progress .. .. .	1,64,835.14	—	—	—	1,64,835.14	—
3.	Farm's well .. .. .	3,600.00	—	—	—	3,600.00	—
<b>3. Delhi :</b>							
1.	Partitions, structures etc. .. .. .	6,906.61	—	—	—	6,906.61	—
2.	Hut for a showkidar .. .. .	559.13	—	—	—	559.13	—
3.	Boundary Wall .. .. .	24,983.78	—	—	—	24,983.78	—
4.	Road Construction .. .. .	16,833.40	—	—	—	16,833.40	—
<b>4. Hyderabad :</b>							
1.	Hut for showkidar .. .. .	3,113.35	—	—	—	3,113.35	—
<b>5. Bangalore :</b>							
1.	Temporary structure-cum-Office Shed .. .. .	39,827.69	—	—	—	39,827.69	—
Sub-total : .. .. .		10,36,462.33	—	—	—	10,36,462.33	—

FIFTYSECOND ANNUAL REPORT : 1963-64

T—Contd.

As on 31st March 1964

Depreciation for the year		Net value (col. 4-5)	Additions during the year			Written down value as on 31st March 1964 (col. 6+7.2)
Rate %	Amount		out of capital expenditure grant (7.0)	out of current expenditure grant (7.1)	total (col. 7.0+7.1) (7.2)	
(5.0)	(6.1)	(6)	(7.0)	(7.1)	(7.2)	(8)
	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
7.5%	2,087.13	25,741.09	—	—	—	25,741.09
"	4,769.66	58,701.50	—	—	—	58,701.50
"	1,278.96	15,772.85	—	—	—	15,772.85
"	9,508.18	1,17,287.18	—	—	—	1,17,287.18
"	7,608.07	92,537.87	—	—	—	92,537.87
"	5,788.74	70,654.49	—	—	—	70,654.49
—	—	2,80,167.61	—	—	—	2,80,167.61
7.5%	3,039.38	37,485.75	—	—	—	37,485.75
"	1,988.14	20,820.37	—	—	—	20,820.37
"	12.62	155.63	—	—	—	155.62
"	22.81	404.60	—	—	—	404.60
7.5%	1,887.90	20,818.12	—	—	—	20,818.12
—	—	1,64,836.14	83,117.46	—	83,117.46	2,17,952.60
7.5%	167.60	2,312.50	—	—	—	2,312.50
"	818.00	5,388.61	—	—	—	6,388.61
"	41.93	817.20	—	—	—	817.50
—	—	24,982.76	—	—	—	24,982.76
—	—	16,832.40	—	—	—	16,832.40
7.5%	168.50	1,954.85	—	—	—	1,954.85
"	2,992.33	36,906.36	—	—	—	36,906.36
	41,224.77	9,95,267.58	83,117.46	—	83,117.46	10,48,378.04

INDIAN STATISTICAL INSTITUTE

Sl. No.	Particulars	SCHEDULE			
		SCHEDULE OF FIXED ASSETS			
		Written down value as on 31st March 1983	Deletions/ adjustment made during the year	Value after deletions/ adjustment (col. 2-3)	
(1)	(2)	(3)	(4)		
		Rs. P.	Rs. P.	Rs.	P.
<b>D. Machinery &amp; Equipment</b>					
1.	Calculating punching & other tabulating equipment ..	4,21,608.49	(-)22,620.73	3,98,987.76	
2.	Office machinery & equipment .. ..	8,18,575.32	(-)1,860.88	8,16,714.24	
3.	Workshop machinery & equipment .. ..	5,027.00	—	5,027.00	
4.	Microfilm, photo, reprography & optical equipment ..	4,20,101.30	—	4,20,101.30	
5.	Laboratory equipment .. ..	14,85,603.10	—	14,85,603.10	
6.	Construction equipment .. ..	4,489.02	—	4,489.02	
7.	UNTAA Workshop machinery & equipment .. ..	5,260.87	—	5,260.87	
8.	Electronic Computer (HEC-2M) and other tabulating equipment .. ..	6,436.06	—	6,436.06	
9.	Mini Computer at Delhi & Madras .. ..	2,25,039.85	—	2,25,039.85	
10.	Electronic Computer at Baranagar .. ..	29,81,322.70	—	29,81,322.70	
11.	Honey wall Computer (H-400) .. ..	1,24,183.95	(+ )29,338.20 (-)76,763.00	74,769.15	
	Sub-total: .. ..	64,77,618.36	(+ )29,338.20 (-)1,00,224.71	64,03,631.85	
<b>E. Passenger Lift (completed) .. ..</b>					
		19,207.48	—	19,207.48	
	-do- : Work-in-progress .. ..	1,48,510.00	—	1,48,510.00	
<b>F. Electrical equipment &amp; installation :</b>					
1.	High tension electricity .. ..	58,761.82	—	58,761.82	
2.	Electrical equipment and fittings .. ..	23,24,413.83	(-)7,964.61	23,26,459.22	
3.	High tension electricity for UNTAA Workshop ..	13,301.05	—	13,301.05	
4.	Electrical installation for fume laboratory .. ..	7,844.08	—	7,844.08	
5.1	Equipment for air-conditioning plant for Composite Library Building .. ..	4,80,638.70	—	4,80,638.70	
2	Air-conditioning plant for Honey wall Computer ..	13,715.63	(-)13,715.63	—	
6	Electrical installation and fittings for Composite Library Building .. ..	3,63,089.33	—	3,63,089.33	
7	Electrical installation and fittings for Boy's Hostel at 206 B. T. Road .. ..	1,15,874.07	—	1,15,874.07	
8	Electrical installation for Honeywall Computer ..	13,822.57	(-)13,822.57	—	
	Sub-total: .. ..	33,77,751.68	(-)31,992.81	33,45,758.77	

FIFTYSECOND ANNUAL REPORT : 1963-64

I— Contd.

AS ON 31st MARCH 1964

Depreciation for the year		Net value (col. 4—5)	Additions during the year			Written down value as on 31st March 1964 (col. 8+7.5)
Rate %	Amount		out of capital expenditure grant (7.0)	out of current expenditure grant (7.1)	total (col. 7.0+7.1) (7.2)	
(5.0)	(6.1)	(6)	(7.0)	(7.1)	(7.2)	(8)
	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.	Rs. P.
15%	63,326.42	3,35,662.94	43,021.95	—	43,021.95	3,78,684.29
"	1,22,786.28	6,93,937.96	69,722.96	—	69,722.96	7,63,660.32
"	754.05	4,272.95	—	—	—	4,272.95
"	69,015.20	3,57,086.10	1,13,798.69	—	1,13,798.69	4,70,884.79
"	2,32,840.47	12,62,762.83	4,19,887.41	—	4,19,887.41	16,82,660.04
"	670.35	3,798.87	6,211.90	—	6,211.90	10,019.57
"	787.63	4,463.54	—	—	—	4,463.54
"	965.41	5,470.65	—	—	—	5,470.65
20%	45,007.93	1,80,031.72	—	—	—	1,80,031.72
"	5,92,264.54	23,66,068.16	1,52,516.39	—	1,52,516.39	25,21,574.65
"	27,470.61	47,298.64	—	—	—	47,298.64
	11,99,788.99	52,63,842.96	8,06,159.30	—	8,06,159.30	60,69,002.26
10%	1,920.75	17,288.73	—	—	—	17,288.73
—	—	1,42,510.00	2,97,692.90	—	2,97,692.90	4,41,202.60
10%	5,676.18	51,078.84	—	—	—	51,078.84
"	2,33,441.38	90,93,017.84	5,64,292.03	—	5,64,292.03	26,57,309.87
"	1,330.11	11,970.94	—	—	—	11,970.94
"	784.41	7,069.67	—	—	—	7,069.67
"	46,063.87	4,14,574.83	—	—	—	4,14,574.83
"	—	—	—	—	—	—
"	36,308.98	3,26,780.85	—	—	—	3,26,780.85
"	11,537.41	1,08,836.66	—	—	—	1,08,836.66
"	—	—	—	—	—	—
	3,35,141.34	30,06,317.43	5,64,292.03	—	5,64,292.03	35,72,609.46

**INDIAN STATISTICAL INSTITUTE**

**SCHEDULE**

**SCHEDULE OF FIXED ASSETS**

Sl. No.	Particulars  (1)	Written down value as on 31st March 1983		Deletions/adjustments made during the year		Value after deletions/adjustment (col. 2-3)	
		Rs.	P.	Rs.	P.	Rs.	P.
G.	Furniture & Fittings .. .. .	29,01,890.78		(-)	30,493.98	28,71,396.80	
H.1	Books & Journals .. .. .	1,10,50,230.38		—		1,10,50,230.38	
.2	Books & Journals acquired out of Ford Foundation Grant ..	65,842.33		—		65,842.33	
I.	Motor Cars & Vehicles .. .. .	5,25,658.90		—		5,25,658.90	
J.	Library equipment (including equipment procured through Ford Foundation Grant and Rockefeller Foundation Grant) ..	81,585.10		—		81,585.10	
K.	Water Supply arrangement:						
.1	At Baranagar .. .. .	4,38,911.84		—		4,38,911.84	
.2	At Bangalore .. .. .	17,350.79		—		17,350.79	
L.	Overbridge: Calcutta .. .. .	2,929.20		—		2,929.20	
M.	Soviet Printing Machine (See note (a) below) .. .. .	2,65,522.20		—		2,65,522.20	
N.	S.R.C. equipment .. .. .	27,871.66		—		27,871.66	
O.	FAI Project equipment (furniture acquired through FAI Grant) ..	731.98		—		731.98	
P.	Investigation of Statistical Problem connected with sediment transportation project: Laboratory equipment acquired out of grant from Indian National Science Academy .. .. .	11,122.56		—		11,122.56	
Q.	PABX installation: Delhi .. .. .	7,508.70		—		7,508.70	
	PABX under installation: Calcutta .. .. .	1,84,580.37		—		1,84,580.37	
	Internal telephone: Calcutta .. .. .	879.49		—		879.49	
R.	Survey Research Methodology Project: Calculating equipment acquired out of Grant from Indian Council of Social Science Research .. .. .	602.06		—		602.06	
	<b>GRAND TOTAL:</b> .. .. .	5,89,90,540.56		(+)	126,338.20	5,88,80,879.31	
				(-)	1,85,011.45		

NOTES (a) Represents value of Soviet Printing Machine received as gift from the Soviet Academy of Sciences, USSR which has been made over to the Statistical Publishing Society for utilisation as per agreement.

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FIFTYSECOND ANNUAL REPORT: 1983-84

I—Contd.

as on 31st March 1984

Rate %	Depreciation for the year		Net value		Additions during the year						Written down value as on 31st March 1984	
	Amount		(col. 4—5)		out of capital expenditure grant		out of current expenditure grant		total (col. 7.0+7.1)		(col. 8+7.2)	
	(5.0)	(5.1)	(6)	(7)	(7.0)	(7.1)	(7.2)	(8)	(8)	(8)	(8)	
	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.
10%	2,90,189.08		25,81,207.75		3,07,058.34		—		3,07,058.34		20,78,266.09	
5%	5,07,511.52		1,13,52,718.86		—		23,44,564.88		23,44,564.88		1,36,97,283.72	
..	2,782.11		53,050.12		—		—		—		53,050.12	
20%	1,05,131.78		4,20,527.12		2,60,071.63		—		2,60,071.63		6,80,598.75	
15%	4,737.77		28,847.33		—		—		—		28,847.33	
10%	43,881.16		3,95,020.48		—		—		—		3,95,020.48	
..	1,735.08		15,815.71		—		—		—		15,815.71	
7.5%	219.69		2,709.51		—		—		—		2,709.51	
15%	39,828.33		2,25,893.87		—		—		—		2,25,893.87	
15%	4,180.75		23,890.81		—		—		—		23,890.81	
10%	73.20		658.76		—		—		—		658.76	
15%	1,668.38		9,454.18		—		—		—		9,454.18	
10%	750.87		6,757.83		—		—		—		6,757.83	
—	—		1,84,580.37		—		—		—		1,84,580.37	
10%	87.95		791.54		—		—		—		791.54	
15%	90.31		511.75		—		—		—		511.75	
	30,85,016.21		5,57,75,881.10		90,10,906.60		23,44,654.88		1,22,52,338.46		6,80,31,331.56	

10, Old Post Office Street,  
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20th December 1984.

D. P. CHATTERJEE & Co.  
Chartered Accountants

INDIAN STATISTICAL INSTITUTE

SCHEDULE II

SCHEDULE OF INVESTMENT AND INTEREST ACCRUED AS ON 31st MARCH 1984

Particulars	Investment		Accrued Interest		Total	
	Rs.	P.	Rs.	P.	Rs.	P.
1. Fixed Deposit						
with United Bank of India .. ..	9,41,758.28			22,543.77		
With Grindlays Bank PLC .. ..	2,00,000.00					
With Allahabad Bank .. ..	22,00,000.00		25,41,758.28	50,833.53	74,877.10	28,18,155.35
2. 5½% loan 1999 (Market value Rs. 2,74,782.50)	5,19,228.05			2,98,012.00		
5½% Loan 2000 (Market value Rs. 28,660.00) .. ..	50,075.00	2,60,301.05	25,750.00	4,33,763.00	10,08,064.05	
		41,11,059.21		5,08,140.10	46,18,199.41	

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FIFTYSECOND ANNUAL REPORT : 1983-84

SCHEDULE III

LOANS AND ADVANCES AS AT 31st MARCH 1984

Particulars	Rs.	P.
Advance for land	30,848.34	
Security Deposit paid	98,156.57	
Sundry Debtors (partly irrecoverable)	81,360.80	
Charges prepaid	5,86,914.76	
Marginal Deposit	0,000.00	
ISI Contributory Provident Fund	1,88,910.97	
Student's Benefit Fund	350.00	
Staff Insurance	2,725.24	
Staff Insurance (Giridih & Delhi)	6,082.28	
C.T.D. (Giridih)	2,883.21	
Education Loan	892.00	
House Building Loan (Old)	42.00	
House Building Loan (New)	25,91,109.87	
Relief Loan (Flood/Drought)	2,39,639.28	
Advance against T.A.	3,48,123.47	
Advance against L.T.C.	3,52,248.83	
Advance for purchase of Cycle	34,791.82	
Advance to Suppliers and Contractors	16,02,694.47	
Suspense and Advance	3,07,090.45	
Festival advance to Staff	2,98,287.07	
Departmental Imprint	23,762.47	
ISI Co-operative Credit Society Ltd. (Baranagar)	73.34	
Professional Tax	971.09	
ISI Co-operative Credit Society Ltd. (Giridih)	578.90	
	<u>67,68,854.02</u>	

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# INDIAN STATISTICAL INSTITUTE

## SCHEDULE V

**EXCESS OF RECEIPTS OVER EXPENDITURE (+) AND EXCESS OF EXPENDITURE OVER RECEIPTS (-) IN RESPECT OF MISCELLANEOUS PROJECTS AND ACTIVITIES ON BEHALF OF GOVERNMENT OF INDIA AND OTHER BODIES AS ON 31st MARCH 1984**

Project and Activities	Excess o. receipts (+)/expenditure (-)				Upto 31st March 1984	
	Upto 31st March 1983		for the year		1984	
	Re.	P.	Re.	P.	Re.	P.
<b>A. OTHER BODIES:</b>						
1. Estimates of Probabilities of Hospitalisation according to age, sex and diagnosis etc. As per last account	+	12,466.06	—	+	12,466.06	
2. International Conference on Management of Quality Control in connection with Dr. J. M. Juran As per last account	+	17,826.55	—	+	17,826.55	
3. An investigation of age and related change in the Electrophoretic and Immunoelectrophoretic components of serumproteins As per last account	+	87,074.80	—	+	87,074.80	
4. Fertiliser optimal Demand Study Projecting fertiliser Demand in India As per last account	+	1,69,886.93	—	+	1,69,886.93	
5. Project on Exchange Control and Liberalisation As per last account	+	17,027.85	—	+	17,027.85	
6. Research Project: "Central Place Hierarchy for developing Agricultural Region", Kerala Area As per last account	+	1,400.00	—	+	1,400.00	
7. Seminar by Prof. J. Krnai under ICSSR Programme As per last account	+	927.13	—	+	927.13	
8. Ford Foundation for Energy Project As per last account	+	2,960.53	—	+	2,960.53	
9. Econometrics Project As per last account	+	15,258.35	—	+	15,258.35	
10. Journal of Economic Development Project As per last account	+	2,631.10	—	+	2,631.10	
11. Cost Benefit Analysis of Rural Electrical Scheme Project As per last account	+	63,036.22	—	+	63,036.22	
12. System Development of Data Processing for Examination Project	+	28,849.25	—	+	28,849.25	
13. Survey of Unorganised Labour in Transport Industry As per last account	+	16.35	—	+	16.35	
14. Survey on Foreign Tourist in India As per last account	+	2,43,984.17	- 71,321.85	+	1,72,662.32	
15. Project on Health and Socio-Economic Survey in CMDA Area As per last account	+	82,964.62	—	+	82,964.62	
16. Road Users' Survey As per last account	-	16,998.50	+ 13,128.40	=	3,870.10	
17. Project on Contour mapping and Estimation of Geological Parameters As per last account	+	9,122.20	—	+	9,122.20	
18. Training Course of Afghan Nationals As per last account	+	28,351.90	—	+	28,351.90	
19. ICSSR Course on Survey Research Methodology (5th March 1978 to 29th April 1978) As per last account	+	5,278.32	—	+	5,278.32	
20. ICSSR Course on Survey Research Methodology (15th January 1979 to 24th February 1979) As per last account	+	6,346.00	—	+	6,346.00	

**INDIAN STATISTICAL INSTITUTE**  
**SCHEDULE IV**

**INCOME AND EXPENDITURE ACCOUNT OF STATISTICAL QUALITY CONTROL DEVELOPMENT FUND, DEVELOPMENT FUND I & 1974 INTERNATIONAL SYMPOSIUM PRIZE IN STATISTICS FUND FOR THE YEAR ENDED 31st MARCH 1984.**

Previous Year				Current Year				Previous Year				Current Year			
SQC Development Fund	Development Fund I	International Symposium Prize Fund	Total	SQC Development Fund	Development Fund I	International Symposium Prize Fund	Total	SQC Development Fund	Development Fund I	International Symposium Prize Fund	Total	SQC Development Fund	Development Fund I	International Symposium Prize Fund	Total
4,76,380.20	16,634.67	1,809.46	4,92,804.32	6,22,800.00	16,350.00	1,848.37	6,40,998.37	4,76,380.20	16,634.67	1,809.46	4,92,804.32	5,22,800.00	16,350.00	1,848.37	6,40,998.37
				To Balance of Income over Expenditure to Fund Account											
				By Interest on investment											
				BALANCE SHEET OF STATISTICAL QUALITY CONTROL DEVELOPMENT FUND, DEVELOPMENT FUND I & 1974 INTERNATIONAL SYMPOSIUM PRIZE IN STATISTICS FUND AS AT 31st MARCH 1984											
Previous Year				Current Year				Previous Year				Current Year			
SQC Development Fund	Development Fund I	International Symposium Prize Fund	Total	SQC Development Fund	Development Fund I	International Symposium Prize Fund	Total	SQC Development Fund	Development Fund I	International Symposium Prize Fund	Total	SQC Development Fund	Development Fund I	International Symposium Prize Fund	Total
46,79,996.90	1,62,748.34	18,741.06	48,62,486.29	53,83,808.18	1,09,383.01	21,55.50	54,93,741.69	51,86,000.00	1,63,500.00	18,500.00	53,70,000.00	61,88,000.00	1,03,500.00	18,500.00	63,70,000.00
4,76,380.20	16,634.67	1,809.46	4,92,804.32	6,22,800.00	10,350.00	1,84.37	6,34,098.37	1,27,186.30	4,072.17	415.70	1,31,673.07	88,436.50	4,072.17	408.96	92,916.32
2,28,461.08	—	—	2,28,461.08	6,23,714.72	—	—	6,23,714.72	—	—	—	—	—	—	—	—
				1. Fund:											
				As per last account											
				Add: Excess of Income over Expenditure.											
				Less: Excess of SQC receipts over current expenditure account											
				2. Current liabilities and provisions											
				Investment in Fixed Deposits with United Bank of India											
				Current Assets:											
				Interest secured but not due on Fixed Deposits											
				Cash and Bank Balance forming part of Institute's cash and bank balance vide Schedule VI:											
				Cash											
				Bank											
53,83,808.18	1,69,383.01	21,550.50	55,73,741.69	65,30,322.90	1,84,733.01	23,398.97	67,38,454.78	63,83,808.18	1,69,383.01	21,550.50	65,73,741.69	66,30,322.90	1,84,733.01	23,398.87	67,38,454.78

**P. K. CHATTERJEE**  
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FIFTYSECOND ANNUAL REPORT : 1983-84

SCHEDULE V

EXCESS OF RECEIPTS OVER EXPENDITURE (+) AND EXCESS OF EXPENDITURE OVER RECEIPTS (-) IN RESPECT OF MISCELLANEOUS PROJECTS AND ACTIVITIES ON BEHALF OF GOVERNMENT OF INDIA AND OTHER BODIES AS ON 31st MARCH 1984

Projects and Activities	Excess of receipts (+)/expenditure (-)				Upto 31st March 1984	
	Upto 31st March 1983		for the year		Ra.	P.
	Ra.	P.	Ra.	P.		
21. ICSSR Project Survey of Distribution of Public expenditure in Social Services in West Bengal As per last account	-	49,050.09	+	2,501.00	-	46,555.00
22. Summer School on use of Electronic Computers in Research and Development As per last account	+	3,769.30		—	+	3,769.30
23. ILO/Village Study Project As per last account	+	15,897.29	-	19.44	+	15,877.85
24. Project on Strategies for Integrated Rural Development—A cast study, North Canara District in Karnataka As per last account	+	7,634.60		—	+	7,634.60
25. Project on An Alternative Plan with the Basic Social Objective for Ensuring the minimum level of Living to the poor As per last account	+	7,083.38		—	+	7,083.38
26. ICSSR Project on Changing Land Relation and Women As per last account	+	168.28		—	+	168.28
27. ICSSR Project on Pulayas in Changing Society As per last account	+	585.52		—	+	585.52
28. ICSSR Project on Women and Rice Cultivation As per last account	-	24,105.32	+	28,944.50	+	4,839.18
29. Survey on Malaria Project As per last account	+	19,068.99		—	+	19,068.99
30. D.C.N.F.P.M.S. As per last account	+	1,69,868.51	-	1,68,005.98	+	11,862.55
31. Rural Survey Project—Cooch Behar As per last account	+	3,459.17		—	+	3,459.17
32. Solar Powered Pump Set As per last account	+	98,286.35	-	224.00	+	98,062.35
33. Research Methodology in Economic Theory As per last account	+	2,955.70		—	+	2,955.70
34. Project on Trade Strategies Employment Pattern As per last account	-	270.68		—	-	270.58
35. The problem of Diesel distribution for Agriculture—A cast study of Gonda, Gorakhpur District of Eastern Railway As per last account	-	2,600.08	-	1,778.75	-	4,378.83
36. BICP Project As per last account	+	17,280.92		—	+	17,280.92
37. Consumption of Steel in Unorganised Manufacturing Sector As per last account	+	4,748.00	-	30,647.90	-	31,899.90
38. Relative price of Food and the rural poor case of India ILO Project As per last account	+	5,400.10		—	+	5,400.10
39. Consumption of Steel by categories and End Use As per last account	+	3,492.94	-	40,971.90	-	37,479.66
40. Price and Distribution Control of Indian Economics As per last account	+	3,309.76	-	61,941.34	-	68,681.58

# INDIAN STATISTICAL INSTITUTE

## SCHEDULE V

EXCESS OF RECEIPTS OVER EXPENDITURE (+) AND EXCESS OF EXPENDITURE OVER RECEIPTS (-) IN RESPECT OF  
MISCELLANEOUS PROJECTS AND ACTIVITIES ON BEHALF OF GOVERNMENT OF INDIA AND  
OTHER BODIES AS ON 31st MARCH 1984

Projects and Activities	EXCESS OF RECEIPTS (+)/EXPENDITURE (-)				Upto 31st March 1984	
	Upto 31st March 1983		for the year			
	Rs.	P.	Rs.	P.	Rs.	P.
41. Project on Quantitative analysis of some aspects in Indian Agriculture (a) Dr. A. Rudra (b) Sri R. Talwar and other fellowship	—	85,909.09	—	—	—	85,909.09
42. Short & Long Term Project— 7th Financial Year Plan	—	—	15,058.70	+	15,058.70	+
43. Project on Demography As per last account	—	—	1,800.00	+	1,800.00	+
44. Ministry of Finance—Project Credit Planning in Indian Economy As per last account	—	—	18,232.30	—	18,232.30	—
45. ISI Plan Revenue—ICSSR Project on Risk Bearing in Agriculture As per last account	—	—	23,293.40	—	23,293.40	—
46. Jadavpur University Project As per last account	—	—	5,000.00	+	5,000.00	+
47. J. P. Naik Project of National Fellowship As per last account	—	—	5,715.00	+	5,715.00	+
<b>Sub-Total : A</b>	+	11,48,806.49	+	72,147.80	+	9,40,998.12
	—	1,94,142.67	—	4,12,436.84	—	3,25,723.44
<b>B. On behalf of Government of India :</b>						
1. Research and Planning Committee of the Planning Commission for Sociological Studies	—	23,755.14	—	—	—	23,755.14
2. ISEC Colombo Plan fellowship As per last account	—	8,97,438.76	—	—	—	—
Expenditure during the year	2,50,691.01					
Less: Amount received during the year	83,573.89		—	—	1,87,017.22	—
						10,84,468.08
3. Ministry of Planning, Government of India for National Sample Survey Organisation As per last account	—	7,44,854.84	—	—	—	—
Expenditure during the year	2,04,652.70					
Less: Amount received during the year	78,295.99		—	—	1,26,356.71	—
						8,71,211.35
4. Ministry of Health, Government of India Expenditure during the year	—	—	3,97,794.80	—	3,97,794.80	—
<b>Sub-Total : B</b>	—	16,68,048.54	—	8,91,168.63	—	23,67,217.17
<b>TOTAL :</b>	+	11,48,806.49	+	72,147.80	+	9,40,998.12
	—	18,60,191.11	+	11,03,606.47	—	28,82,940.81

NOTE: For Receipts and Expenditure of the projects during the year—See Annexure I.

P. K. CHATTERJEE  
Senior Accounts Officer

N. SUNDIVARAN  
Officer-on-Special Duty  
(Administration & Finance)

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FIFTYSECOND ANNUAL REPORT : 1983-84

SCHEDULE VI

DETAILS OF CASH IN HAND AS ON 31st MARCH 1984 AT THE CENTRAL OFFICE AND OTHER OFFICES OF THE INSTITUTE AND BANK BALANCES ON THAT DATE

	Cash Rs. P.	A/c. with Bank (Name of the Bank)	Total Rs. P.
As-Central Office (Calcutta)	11,229.92	SBI, Strand Road 'A' SBI, Shambazar 'B' UBI, Dunlop Bridge RBI, (P/L A/c.) Nath Bank Ltd. (in liquidation—doubtful) SBI, Delhi 'A' SBI, Delhi 'B' Grindlays Bank P.L.C. Allahabadi Bank	20,146.65 6,26,606.70 1,26,697.78 3,106.80 2,758.89 1,632.72 698.60 33,90,494.67 5,99,386.00
<b>BRANCHES :</b>			
At Delhi	3,476.67	Indian Bank, Delhi	8,82,230.91
.. Giridi	6,264.26	Canara Bank	10,790.45
.. Bangalore	7,432.47	UCO Bank	63.10
.. Kerala	266.12	United Bank	89,347.99
.. Colmbatore	389.34	SBI, Bangalore	2,03,313.65
.. Mysiras	3,018.39	Bank of Baroda, Bangalore	6,32,018.99
.. Bombay	2,912.04	SB of Trevanore	32,499.78
.. Baroda	220.94	Symlente Bank, Colmbatore	21,648.42
.. Hyderabad	589.92	SBI, Madras Branch	29,733.87
.. Pune	441.00	SBI, Bombay	1,15,385.80
.. Tokyo Japan*	7,568.82	Bank of Baroda	86,588.31
		Indian Bank, Hyderabad	48,073.86
		SR Hyderabad	742.08
		SBI Pune	82,522.47
	<u>43,763.80</u>		<u>69,65,299.80</u>

\*With International House of Japan, Translation Unit, converted Rs. 100 = 7500 yen approx.  
The above amount have been shown in the following Balance Sheets of the Institute and its various funds:

The Institute	37,403.63	The Institute	60,79,761.34
Director's Contribution Fund	6,300.23	Statistical Quality Control Development Fund	2,53,887.70
		Development Fund I	17,160.84
		1974 International Symposium Prize in Statistics Fund	4,899.92
	<u>43,763.86</u>		<u>69,65,299.80</u>

P. K. CHATTERJEE  
Senior Accounts Officer

N. SRINIVASAN  
Officer-on-Special Duty  
(Administration & Finance)

A. MAITRA  
Director  
Indian Statistical Institute

10, Old Post Office Street,  
Calcutta 700 001  
20th December 1984

D. P. CHATTERJEE & Co.  
Chartered Accountants

INDIAN STATISTICAL INSTITUTE

SCHEDULE VII

GENERAL FUND AS ON 31st MARCH 1984

Particulars	Amount	Amount
1. Opening Balance .. .. .		6,43,87,776.82
2. Add: Assets acquired during the year:		
1. Capital Expenditure Grant A/c. As per Schedule I (col. 7.0) annexed to the Balance Sheet	99,10,905.50	
2. Current expenditure Grant A/c. As per Schedule I (col. 7.1) annexed to Balance Sheet	22,44,564.88	1,32,55,470.48
3.1 Less: Depreciation written off during the year on fixed assets (including lease written off)		
Less: As per Schedule I (col. 5.1) annexed to the Balance Sheet		50,85,016.31
Less: Assets written off: As per Schedule I (col. 8) annexed to the Balance Sheet		
for assets transferred to N.S.S.O.	43,925.22	
for assets written off	18,995.03	62,920.35
		31,47,935.48
		91,07,535.00
4. Add: Interest on Investment:		
On Fixed Deposit with Banks .. .. .	3,29,178.08	
On G. P. Notes .. .. .	81,179.50	3,50,365.58
		94,67,890.58
		7,38,55,666.90

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10, Old Post Office Street,  
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30th December 1984.

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FIFTYSECOND ANNUAL REPORT : 1983-84

SCHEDULE VIII

DEPOSITS AND LIABILITIES AS AT 31ST MARCH 1984

Particulars	Rs. P.
Income tax : staff .. .. .	53,280.10
"do" : contractors .. .. .	10,478.50
Library & Circulating Library deposit .. .. .	90,935.00
Laboratory deposit .. .. .	4,600.00
Hostel canteen money deposit .. .. .	9,375.00
E.C.A.F.E. .. .. .	704.27
C.D.S. annuity deposit .. .. .	1,889.00
Machine training deposit .. .. .	25,875.00
Cumulative time deposit .. .. .	20,858.25
Causation money for electric motor (Delhi) housing staff .. .. .	1,675.00
Statistical workers' housing scheme .. .. .	7,987.32
Workers' benefit fund .. .. .	1,354.71
Felicitation Fund .. .. .	184.37
Membership fee deposit .. .. .	8,781.39
Earnest money deposit .. .. .	1,82,259.07
Security deposit .. .. .	3,39,269.70
Retention money deposit .. .. .	5,07,232.95
Tender money deposit .. .. .	1,52,899.32
ISI Small Scale Industry Experimental Unit-Kalyanster .. .. .	14,910.37
Director of Health Service for purchasing Census Report through UNESCO .. .. .	8,126.00
Interest on Home Building Loan (New) .. .. .	10,167.00
Food grain advance .. .. .	1,870.00
Student's medicines advance (Delhi) .. .. .	245.52
Amount due for Scholarship fellowship payable by other bodies .. .. .	9,048.89
Other Liabilities :	Rs. P.
For construction .. .. .	8,08,407.19
" Equipment .. .. .	21,054.30
" Building materials .. .. .	75,233.18
" Salary, D.A., A.D.A. etc. .. .. .	6,38,269.58
" Travelling .. .. .	1,27,352.10
" Leave salary, gratuity, pension etc. .. .. .	4,34,539.75
" Stipend .. .. .	19,185.98
" Leave travel concession .. .. .	16,032.10
" Misc. Projects .. .. .	2,402.30
" Books & Journals .. .. .	65,043.74
" Laboratory stores .. .. .	29,817.94
" Rent .. .. .	7,94,946.33
" Postage, Telegram & Electricity .. .. .	1,18,388.37
" Advertisement, Insurance & Law charges .. .. .	1,09,077.80
" Others .. .. .	2,83,708.43
	<u>34,39,566.13</u>
	<u>34,33,556.13</u>
	48,97,488.51

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10, Old Post Office Street,  
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29th December 1984

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Chartered Accountants



# INDIAN STATISTICAL INSTITUTE

## SCHEDULE IX

**EXCESS OF RECEIPTS OVER EXPENDITURE IN RESPECT OF CAPITAL EXPENDITURE GRANT RECEIVED FROM GOVERNMENT OF INDIA AND GOVERNMENT OF KARNATAKA AS ON 31st MARCH 1984**

Particulars	Rs. P.	Rs. P.
<b>1. EXCESS OF RECEIPTS OVER EXPENDITURE IN RESPECT OF CAPITAL EXPENDITURE GRANT FROM GOVERNMENT OF INDIA</b>		
As per last account .. .. .	74,82,644.93	
Add: Grant received during the year .. .. .	85,45,000.00	
	<hr/>	
Less: Assets acquired during the year .. .. .	1,90,37,644.93	
Less: Assets acquired during the year .. .. .	88,33,600.75	71,94,044.18
	<hr/>	
<b>2. EXCESS OF RECEIPTS OVER EXPENDITURE IN RESPECT OF CAPITAL EXPENDITURE GRANT FROM GOVERNMENT OF KARNATAKA</b>		
As per last Account	12,00,000.00	
Add: Grant received during the year .. .. .	6,00,000.00	18,00,000.00
	<hr/>	
Less: Assets acquired on account of Bangalore Construction		
As per last account .. .. .	7,22,695.15	
Add: Expenditure during the year .. .. .	10,77,304.85	18,00,000.00
	<hr/>	
		<hr/>
		71,94,044.18
		<hr/>

**P. K. CHATTERJEE**  
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**N. SRINIVASAN**  
Officer-on-Special-Duty  
(Administration & Finance)

**A. MAJRA**  
Director  
Indian Statistical Institute

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20th December 1984

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## INDIAN STATISTICAL INSTITUTE

### SCHEDULE X

#### 1. Fixed Assets :

The Institute has maintained proper records showing full particulars and situation of Fixed Assets. None of the fixed assets was revalued during the year. Physical verification of fixed assets of Head Office and Branches was carried out during the financial year 1982-83/1983-84. The adjustment of the discrepancy between book figure and ground stocks as per physical verification of 1982-83/1983-84 and the assets taken over by NSSO on seporation on 1.6.72 has been given effect in the accounts for 1983-84 as desired by the Council.

The assets have been acquired out of Capital Expenditure Grant received from Government of India every year and the funds of the Institute. The State Government of Karnataka released a sum of Rs. 18,00,000/- as grant-in-aid towards construction of Campus building in Bangalore Centre which has been duly utilised.

The Institute does not have selling right in respect of land and landed properties acquired through the State Government. As per practice followed by the Institute, depreciation on fixed assets charged from the year following the year of purchase. 95% of the books and journals including cost of binding etc. has been Capitalised. No physical verification of Library books of Head Office and Delhi has been conducted during the year and discrepancies found in the Library books during verification in earlier years at Delhi are still to be located.

#### 2. Investments :

Investments of the Institute for General/Other Funds stand in the name of Indian Statistical Institute with appropriate exhibition of such investments pertaining to other funds in relevant Balance Sheets.

#### 3. Stores :

The actual consumption value of building materials has been shown as expenditure Capital or Revenue for which it is utilised. In the case of all other Stores materials including Laboratory Stores, Minor Accemorics, Farming Seeds in Giridih etc., the value of Purchases made during the year has been charged to Income and Expenditure Account.

#### 4. Loans & Advances :

Advances to Suppliers/Contractors includes Rs. 32,213.66 paid and recoverable from M/s. Bharat Overseas Pvt. Ltd. Delhi. Legal action has been taken by the Institute and award of the Court is awaited. Advance to Staff/Workers of the Institute includes Rs. 41,000/- recoverable from some Staff under suspension for which enquiry is in progress. The old difference of Rs. 718.71 relating to the year 1973-74 is yet to be reconciled. Rs. 49,721.87 recoverable from M/s. Gun & Shell Factory, Cosipore considered doubtful and necessary action for adjustment/writing off will be taken with the approval of the Competent Authority.

#### 5. AECD with Regional Provident Fund Commissioner

The difference of Rs. 12,455.21 under Additional D.A. Deposit with Regional Provident Fund Commissioner is still under scrutiny.

#### 6. Cash and Bank Balances

Schedule VI attached to the Balance Sheet indicates the break up of Cash and Bank Balances. Action has been taken to settle the old balance standing in the name of Statistical Laboratory with State Bank of India, Strand Road Branch and Parliament Street Branch, Delhi. Similarly, Reserve Bank's permission has been sought for through American Express International Banking Corporation to enable the Institute to refund the unspent amount of Rs. 1,182.29 of the Rockefeller foundation grant. Nath Bank Ltd. (liquidation) is still paying dividend and unrecovered amount if any will be written off with the approval of Competent Authority after the closure of liquidation proceedings. In the case of Indian Currency cheque, date of receipt of the cheque as well as date of issue of the cheque by the Institute is being entered in the cash book and in respect of foreign currency cheque amount is accounted in the cash book on getting debit/credit advice from banks in Indian Rupee.

## FIFTYSECOND ANNUAL REPORT : 1983-84

### 7. Deposits and Other Liabilities :

The net balances as usual under the head of accounts have been shown in the list in the year under audit. The deposits and liabilities schedule has now been exhibited indicating the break up of other liabilities. Interest on Government Securities has been accounted when it is due for payment in accordance with the past practice followed in this respect.

### 8. Income & Expenditure Account :

Government of India vide letter no. 0-18012/1/82-IBI dated 14.3.84 advised us to appropriate Rs. 4,36,000/- with our Plan and Non-Plan Revenue surplus and same is done accordingly. The medical reimbursement expenses includes hospital advances paid by the Institute. Expenditure on Computer accessories, Computer Stationary and maintenance has been charged to appropriate head as desired by the Council.

### 9. Capital Commitments :

Contracts remaining to be executed on Capital accounts amount to Rs. 69,30,820.00

### 10. Contingent Liabilities :

The Institute may be liable to pay additional rent with interest in respect of Gupta Niwas accommodation in Calcutta, the amount of which is not readily ascertainable. A case is pending with Calcutta High Court in this respect.

The Institute is contingently liable for payment of claims relating to construction and other work amounting to Rs. 4,85,689.81 and other claims amounting to Rs. 2,27,853.00.

11. Figures of previous year have been regrouped and rearranged wherever necessary. In the absence of prior period adjustment account, all transactions pertaining to the past years have been accounted under concerned head of accounts.

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20th December 1984

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INDIAN STATISTICAL INSTITUTE

ANNEXURE I

INCOME AND EXPENDITURE ACCOUNT OF MISCELLANEOUS PROGRAMS FOR THE YEAR ENDED 31st MARCH 1984

Project	Survey on Foreign Incomes in India	Consumption of Steel in Manufacturing Sector	D.C.N.F.T.M.S. Project	Solar Project	I.L.O. Village Term Project	Short & Long Term Project	Project on Women & Rice Cultivation	The problem of Drought for Agricul- ture—A case study on Orissa	Director (A/c 2523)	Consumption of Steel by end use	Price and Distribution of Indian Economy	Project Credit Planning in Economy	ISI Plan for on-line Printing in Agriculture	Road User's Survey	Survey of Public Expenditure on Social Services in West Bengal	Jadavpur University Project	J. P. Nalg Project of Fellowship	Total
(A/c 282)	(A/c 233)	(A/c 243)	(A/c 248)	(A/c 240)	(A/c 250)	(A/c 251)	(A/c 2525)	(A/c 2523)	(A/c 2523)	(A/c 2525)	(A/c 2524)	(A/c 2581)	(A/c 2582)	(A/c 2586)	(A/c 258)	(A/c 259)	(A/c 259)	
Sponsoring Authority	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	Dept. of Govt. of India	
Income upto 31.3.83	5,40,000.00	5,000.00	3,75,000.00	1,02,022.00	60,272.34	—	83,916.00	34,300.00	15,000.00	10,000.00	47,489.00	—	—	10,000.00	47,489.00	—	—	12,08,684.34
Income current year	—	25,000.00	—	—	32,000.00	2,500.00	36,131.00	—	—	—	—	—	—	13,128.40	2,501.00	6,000.00	33,916.00	1,48,174.40
Other Income	—	25,000.00	—	—	—	2,500.00	36,131.00	—	—	—	—	—	—	13,128.40	2,501.00	6,000.00	33,916.00	1,48,174.40
Balance of Expenditure over Income	71,221.85	36,647.90	1,58,005.96	224.00	19.44	—	—	1,778.75	40,971.80	61,941.34	18,232.30	23,293.40	—	—	—	—	—	4,12,438.84
Total:	71,221.85	61,647.90	1,58,005.96	224.00	19.44	—	—	1,778.75	40,971.80	61,941.34	18,232.30	23,293.40	—	—	—	—	—	5,01,012.34
Income upto 31.3.84	5,49,000.00	30,000.00	3,75,000.00	1,02,022.00	60,272.34	2,500.00	1,10,047.00	34,300.00	15,000.00	18,550.00	—	—	—	23,128.40	40,000.00	6,000.00	33,916.00	14,47,784.74
Expenditure upto 31.3.83	2,99,012.83	232.00	2,05,341.40	4,273.95	40,372.03	—	1,08,021.32	36,990.08	11,507.76	16,640.24	—	—	—	26,098.80	94,555.09	—	—	8,51,973.01
Expenditure Current year:																		
Salary & Emoluments etc.	41,981.70	40,115.91	3,550.00	—	—	700.00	3,733.20	134.45	38,840.00	48,807.77	17,265.09	21,760.00	—	—	—	—	—	2,70,809.83
Travelling exp.	16,668.00	4,310.00	—	—	—	—	1,260.80	1,099.30	2,048.40	4,865.40	903.20	1,643.40	—	—	—	—	—	32,863.30
Data Processing	—	—	—	—	—	—	—	—	—	4,752.79	—	—	—	—	—	—	—	9,092.00
Contingent Exp.	2,168.30	3,097.29	84.00	224.00	—	—	—	—	—	—	—	—	—	—	—	—	—	6,473.48
Capital Equipment	—	—	1,48,715.98	—	—	—	—	—	—	907.49	—	—	—	—	—	—	—	1,50,633.38
Transport Charge	10,001.00	2,283.90	378.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12,739.60
Other Expenses	382.50	171.00	—	—	—	—	—	—	—	563.15	—	—	—	—	—	—	—	1,121.25
Bonus & Gratification	482.25	75.80	2,009.40	—	19.44	—	1,202.70	625.00	82.50	1,945.74	74.10	—	—	—	—	—	—	6,645.81
Sub-Total:	71,221.85	61,647.90	1,58,005.96	224.00	19.44	700.00	6,186.50	1,778.75	40,971.80	61,941.34	18,232.30	23,293.40	—	—	—	—	—	2,88,200.00
Balance of Income over expenditure	—	—	—	—	—	1,800.00	28,044.50	—	—	—	—	—	—	13,128.40	2,501.00	6,000.00	3,916.00	72,147.80
Total:	71,221.85	61,647.90	1,58,005.96	224.00	19.44	32,000.00	35,313.00	1,778.75	40,971.80	61,941.34	18,232.30	23,293.40	—	13,128.40	2,501.00	6,000.00	3,916.00	6,51,612.34
Expenditure upto 31.3.84	3,67,237.68	81,800.00	3,20,347.45	4,497.95	40,391.40	700.00	1,14,507.82	38,768.83	52,473.66	73,281.58	18,232.30	23,293.40	—	28,998.80	94,555.09	—	—	28,200.00
Income upto 31.3.84	3,67,237.68	81,800.00	3,20,347.45	4,497.95	40,391.40	700.00	1,14,507.82	38,768.83	52,473.66	73,281.58	18,232.30	23,293.40	—	28,998.80	94,555.09	—	—	28,200.00

P. K. CHATTERJEE  
General Accounts Officer

M. S. SETHI  
General Accounts Officer  
(Administration & Finance)

A. MATTA  
Indian Statistical Institute

10, Old Post Office Street,  
Calcutta 700 002  
20th December, 1984.

D. P. CHATTERJEE & Co.  
Chartered Accountants

**INDIAN STATISTICAL INSTITUTE CONTRIBUTORY AND  
GENERAL PROVIDENT FUND**

**AUDITORS' REPORT**

We report that we have audited the attached Balance Sheet as at 31st March 1984 of the Indian Statistical Institute Contributory Provident Fund and General Provident Fund signed by us under reference to this report and the relative Income and Expenditure Account for the year ended on that date with the books and records of the Fund maintained by the Institute and produced to us and on the basis of information and explanations given and subject to the remarks, mentioned below, have found them to be in accordance therewith.

1. We are informed that the differences between the General Ledger balances of the following accounts and the balances as per Members' Ledger are under scrutiny and reconciliation.

	Balance as per General Ledger	Balance as per Members Ledger	Differences
Members' Own Subscription	95,40,335.81	95,35,050.33	+5,285.48
Members' VPF	14,19,484.79	14,15,972.48	+3,512.31
Interim Relief due to workers	15,433.26	14,876.66	+ 556.60
ADA/DAPF due to workers	9,31,254.59	9,33,077.73	-1,823.14
HRA/CCA	7,08,668.41	7,07,383.01	+1,275.40
Interest payable on			
Members own Subscription	58,51,864.77	58,48,694.58	+3,170.19
Members VPF	2,22,024.98	2,25,025.73	-3,000.75
Interim Relief	20,439.56	20,020.34	+ 419.22
ADA/DAPF due to workers	3,34,551.45	3,34,042.76	+ 508.69
HRA/CCA	34,320.39	34,310.80	+ 9.59

2. Interest on Government Securities has been accounted for on cash basis as per past practice.

3. Loan to Members :

CPF	17,74,697.55
GPF	22,58,179.40
	<hr/>
	40,32,876.95

The balance as extracted from Members Ledgers is Rs. 40,29,002.30. The difference of Rs. 3,874.65, is under reconciliation.

FIFTYSECOND ANNUAL REPORT : 1983-84

4. Relief loan to ISI and NSSO Workers : Rs. 38,904.00

Balance as extracted from the Register is Rs. 29,447.00. Difference of Rs. 9,457.00 should be scrutinised.

5. Income Tax Recoverable : Rs. 18,570.00

The above amount is being carried forward for several years and in our opinion, the amount is doubtful of recovery. No provision has been made in terms of our last audit report.

6. Separate sets of books of account should be maintained for the Fund instead of keeping the same within the Institute's books of account.

20th December 1984.

D. P. CHATTERJEE & Co.  
*Chartered Accountants*

INDIAN STATISTICAL INSTITUTE

INDIAN STATISTICAL INSTITUTE

BALANCE SHEET

As at 31st March 1953		Fund and Liabilities				As at 31st March 1954	
Rs.	P.					Rs.	P.
		<i>*Contributory Provident Fund Members Own Subscription:</i>					
		As per last account	..	..	..	60,04,498.00	
		Add : during the year	..	..	..	7,68,245.83	
						<u>67,74,743.83</u>	
		Less : refunded during the year	..	..	..	1,29,609.69	
						<u>66,45,234.14</u>	
85,34,822.70		Less : withdrawal to date	..	..	..	8,28,600.68	58,16,633.46
		<i>Employers' contribution :</i>					
		As per last account	..	..	..	60,44,299.59	
		Add : during the year from Institute	..	..	..	7,68,245.83	
						<u>68,12,545.42</u>	
1,01,75,861.74		Less : refunded during the year	..	..	..	1,34,100.62	66,78,444.80
		<i>Members voluntary subscription :</i>					
		As per last account	..	..	..	9,09,639.07	
		Add : during the year	..	..	..	7,02,826.75	
						<u>16,12,465.82</u>	
11,29,986.87		Less : refunded during the year	..	..	..	2,92,162.70	13,20,303.12
		<i>Interest Payable :</i>					
		(a) On members own subscription :					
		As per last account	..	..	..	35,41,819.93	
		Add : during the year	..	..	..	6,77,876.58	
						<u>42,19,696.51</u>	
		Less : paid during the year	..	..	..	91,025.65	
						<u>41,28,470.86</u>	
49,06,813.09		Less : withdrawal to date	..	..	..	3,24,675.33	38,03,895.53
		(b) On Employers' contribution :					
		As per last account	..	..	..	36,85,184.71	
		Add : for the year	..	..	..	9,57,600.79	
						<u>46,42,785.50</u>	
61,56,743.19		Less : paid during the year	..	..	..	1,29,405.83	47,13,316.67
		(c) On members voluntary Subscription :					
		As per last account	..	..	..	1,21,464.50	
		Add : for the year	..	..	..	78,452.81	
						<u>1,99,917.37</u>	
1,60,373.59		Less : paid during the year	..	..	..	21,078.60	1,78,838.73
3,11,20,421.18		Carried Over :	..	..	..		<u>2,25,11,482.30</u>

FIFTYSECOND ANNUAL REPORT : 1983-84

CONTRIBUTORY AND GENERAL PROVIDENT FUND

As At 31 March 1981

As at 31st March 1983		Property & Assets		As at 31st March 1984	
Rs.	P.			Rs.	P.
<i>Contributory Provident Fund</i>					
<i>Investment at cost :</i>					
(a) Government Promissory Notes :					
		Rs.			
		3,50,000.00	5½% loan 1989	3,51,575.00	
		20,25,000.00	5½% loan 1992	20,47,275.00	
		23,00,000.00	5½% loan 2000	23,03,450.00	
65,02,300.00		Rs. 84,75,000.00		47,02,300.00	
2,45,62,720.00		(b) 5 Yrs. Postal Time Deposit		2,70,23,320.00	
—		(c) 5 Yrs. Fixed Deposit		31,70,000.00	3,87,85,620.00
35,14,183.98		<i>Loan to Members :</i>			17,74,697.55
39,001.00		<i>Relief Loan to ISI &amp; NSSO Workers :</i>			38,904.00
<i>Current Assets :</i>					
<i>Interest Accrued :</i>					
13,15,350.54		(a) On 5 Yrs. Postal Time Deposit		16,11,760.70	
1,018.50		(b) On Post Office Savings Bank A/c.		—	
61,750.00		(c) On Govt. Promissory Notes		—	
—		(d) On Allahabad Savings Bank		541.35	
—		(e) On Allahabad Bank Fixed Deposit		1,06,241.57	17,18,633.72
<i>Income Tax Recoverable :</i>					
18,570.00		As per last account			18,570.00
<i>Cash and Bank Balances :</i>					
With Scheduled Bank on Current a/c					
(i) With Union Bank of India Dunlop Bridge Branch (in the name of Indian Statistical Institute General Provident Fund)					
					62,252.61
2,44,330.14		(ii) Postal Savings Bank A/c.			3,460.80
1,70,910.50		(iii) With Allahabad Bank Saving A/c.			2,69,068.66
Carried Over :				<u>3,96,81,137.34</u>	



INDIAN STATISTICAL INSTITUTE

INDIAN STATISTICAL INSTITUTE

As at 31st March 1983		Fund and Liabilities				BALANCE SHEET		As at 31st March 1984	
Rs.	P.					Rs.	P.	Rs.	P.
8,11,20,481.18		Brought forward :	..	..	..			2,35,11,432.80	
		(d) On Interim Relief :							
		As per last account	..	..	..	8,430.60			
		Add : for the year	..	..	..	1,825.14			
						10,055.74			
17,242.04		Less : paid during the year	..	..	..	331.60		9,724.14	
		(e) On DA & ADA to PF :							
		As per last account	..	..	..	1,26,361.41			
		Add : for the year	..	..	..	85,807.74			
						1,92,169.15			
2,35,072.33		Less : paid during the year	..	..	..	3,558.70		1,88,610.45	
		(f) On HRA/CCA to PF :							
		As per last account	..	..	..	14,988.00			
		Add : for the year	..	..	..	14,988.00			
		Less : paid during the year	..	..	..	14,988.00		14,988.00	
		<i>Interim Relief due to Workers :</i>							
		As per last account	..	..	..	7,788.28			
15,879.26		Less : refunded during the year	..	..	..	218.00		7,570.28	
		DA & ADA to PF due to workers :	..	..	..				
		As per last account	..	..	..	5,87,498.50			
		Add : for the year	..	..	..	6,382.57			
						5,93,879.07			
9,43,571.43		Less : refunded during the year	..	..	..	9,655.61		5,84,223.58	
		<i>HRA/CCA to PF due to workers :</i>							
		As per last account	..	..	..	3,48,886.22			
		Add : for the year	..	..	..	5,741.75			
						3,54,627.97			
7,17,160.20		Less : paid during the year	..	..	..	7,910.04		3,46,797.93	
		<i>*General Provident Fund</i>							
		Members Own Subscription :							
		As per last account	..	..	..	40,87,114.70			
		Add : during the year	..	..	..	6,18,577.34			
						47,05,792.04			
		Less : refunded during the year	..	..	..	1,39,824.89			
						45,65,967.15			
		Less : withdrawals to date	..	..	..	8,42,284.80		37,23,702.35	
8,80,39,354.44		Carried Over :						2,78,87,947.08	

FIFTYSECOND ANNUAL REPORT : 1983-84

CONTRIBUTORY PROVIDENT FUNDS—Contd.

AS AT 31st MARCH 1984

As at 31st March 1983		Property & Assets			As at 31st March 1984	
Rs.	P.		Rs.	P.	Rs.	P.
3,05,20,155.00		Brought Forward :				3,05,81,137.34

— —

*General Provident Fund*

*Loans to Members :*

22,58,179.40

3,05,20,155.00

Carried over :

4,19,39,316.74

INDIAN STATISTICAL INSTITUTE

INDIAN STATISTICAL INSTITUTE

As at 31st March 1983		Fund and Liabilities				As at 31st March 1984	
Ra.	P.					Ra.	P.
3,30,39,354.44		Brought forward :					2,72,87,047.08
		<i>Employers Contribution :</i>					
		As per last account .. .. .				41,31,382.15	
		Add : during the year (incurred basis) .. .. .				5,42,193.20	46,73,575.35
		<i>Members voluntary subscription :</i>					
		As per last account .. .. .				2,20,347.80	
		Add : during the year .. .. .				—	
		<i>Less : refunded during the year .. .. .</i>				2,20,347.80	
						1,21,186.13	99,161.67
		<i>Interest Payable :</i>					
		(a) On members' own subscription :					
		As per last account .. .. .				21,41,688.20	
		Add : during the year .. .. .				3,44,793.50	
		<i>Less : paid during the year .. .. .</i>				24,86,449.79	
						70,856.87	
		<i>Less : withdrawal to date .. .. .</i>				24,15,593.03	20,47,968.24
						3,67,623.79	
		(b) On Employers' contribution :					
		As per last account .. .. .				22,71,558.48	22,71,558.48
		(c) On members voluntary subscription :					
		As per last account .. .. .				34,899.03	
		Add : for the year .. .. .				24,312.82	
		<i>Less : paid during the year .. .. .</i>				59,221.95	
						16,035.69	43,188.26
		(d) On Interim Relief :					
		As per last account .. .. .				8,811.44	
		Add : for the year .. .. .				2,205.62	
		<i>Less : paid during the year .. .. .</i>				11,017.06	
						301.64	10,715.42
		(e) On DA and ADA to PF :					
		As per last account .. .. .				98,710.92	
		Add : for the year .. .. .				50,348.34	
		<i>Less : paid during the year .. .. .</i>				1,49,050.26	
						3,118.28	1,45,641.00
		(f) On HRA/CCA to PF :					
		As per last account .. .. .				—	
		Add : for the year .. .. .				19,384.90	
		<i>Less : paid during the year .. .. .</i>				30.60	19,354.30
3,30,39,354.44		Carried over :				3,66,98,508.80	

FIFTYSECOND ANNUAL REPORT : 1983-84

CONTRIBUTORY PROVIDENT FUND—Contd.

as at 31st MARCH 1984

As at 31st March 1983		Property & Assets	As at 31st March 1984	
Rs.	P.		Rs.	P.
3,05,20,155.66		Brought forward :	4,19,20,316.74	

3,05,20,155.66

Carried over :

4,19,20,316.74

INDIAN STATISTICAL INSTITUTE

INDIAN STATISTICAL INSTITUTE

BALANCE SHEET

As at 31st March 1983		Fund and Liabilities			As at 31st March 1984		
Rs.	P.		Rs.	P.	Rs.	P.	
3,30,39,854.44		Brought forward :	..	..	..	8,06,98,608.80	
		<i>Interim Relief due to Workers :</i>					
—		As per last account	..	..	8,109.00		
—		Loss : refunded during the year	..	..	246.00	7,863.00	
		<i>DA/JADA to PF due to Workers :</i>					
		As per last account	..	..	3,56,074.92		
		Add : for the year	..	..	577.36		
					<u>3,56,652.28</u>		
—		Loss : refunded during the year	..	..	8,821.20	3,47,031.08	
		<i>HRA/JOA to PF due to Workers :</i>					
		As per last account	..	..	3,08,283.98		
		Add : for the year	..	..	—		
					<u>3,08,283.98</u>		
—		Loss : paid during the year	..	..	6,423.60	3,01,860.48	
		<i>Accounts under adjustment (Net) :</i>					
1,998.01		As per last account	..	..	..	1,998.01	
34,40,827.54		Undistributed Income including amounts forfeited as per Income and Expenditure Account :	..	..	..	43,33,146.45	
37,977.67		Amount due to the Institute	..	..	..	1,88,918.87	
3,65,20,155.60						4,19,59,816.74	

M. R. GUPTA  
Manager/Secretary

M. K. CHAKRAVARTI  
Member, Board of Trustees

M. B. CHAKRABORTY  
Member, Board of Trustees

\*Accounting adjustments for separation of amounts relating to OPF and GPF had been made during the year.

FIFTYSECOND ANNUAL REPORT : 1983-84

CONTRIBUTORY PROVIDENT FUND—*Contd.*

AS AT 31st MARCH 1984

As at 31st March 1983		Property & Assets	As at 31st March 1984		
Rs.	P.		Rs.	P.	
3,65,20,165.66		Brought forward :	..	..	4,19,88,316.74

3,65,20,165.66

4,19,88,316.74

This is the Balance Sheet referred to in our report of even date.

10, Old Post Office Street,  
Calcutta 700 001  
20th December 1984

D. P. CHATTERJEE & Co.  
*Chartered Accountants.*

INDIAN STATISTICAL INSTITUTE

INDIAN STATISTICAL INSTITUTE CONTRIBUTORY AND

INCOME AND EXPENDITURE ACCOUNT

1983-84		Expenditure		1983-84	
Ra. P.				Ra. P.	
29,02,790.29	To Excess of Income over expenditure carried down	..	..	..	81,24,224.48
<hr/>				<hr/>	
29,02,790.29					81,24,224.48
To Interest on:					
8,58,681.28	i) CPF Members own subscription	..	..	..	6,74,081.42
	GPF	"	"	"	5,42,239.80
8,00,983.48	ii) CPF Employers contribution	..	..	..	9,87,600.79
63,990.50	iii) CPF Voluntary Subscription	..	..	..	78,452.81
	GPF	"	"	"	24,312.02
1,635.87	iv) CPF Interim Relief	..	..	..	1,625.14
	GPF	"	"	"	2,205.82
55,097.07	v) CPF DA/ADA to PF	..	..	..	65,807.74
	GPF	"	"	"	60,348.34
—	vi) CPF HRA/CCA to PF	..	..	..	14,988.09
	GPF	"	"	"	19,364.90
34,40,827.54	.. Balance carried over to Balance Sheet	..	..	..	43,53,146.45
<hr/>				<hr/>	
62,22,225.52					65,65,052.02

M. R. GUPTA  
Manager/Secretary

MIHIR KUMAR CHAKRABORTI  
Member, Board of Trustees

MANUJ BHARAN CHAKRABORTY  
Member, Board of Trustees

FIFTYSECOND ANNUAL REPORT : 1983-84

GENERAL PROVIDENT FUND

FOR THE YEAR ENDED 31st MARCH, 1984.

1982-83		Income	1983-84	
Ra.	P.		Ra.	P.
By Interest on:				
		(i) (a) G.P. Notes .. .. .	3,08,875.00	
		(b) 5 Yrs. Postal Time Deposit .. .. .	27,08,519.96	
		(c) Allahabad Bank Savings A/c. .. .. .	587.86	
28,16,692.71		(d) Allahabad Bank Fixed Deposit A/c. .. .. .	<u>1,06,241.67</u>	31,24,224.48
86,097.58		(ii) Loan given to the Members .. .. .		—
<u>29,02,790.29</u>				<u>31,24,224.48</u>
23,19,435.23		By Amount brought forward from last account .. .. .		34,40,827.54
29,02,790.29		.. Excess of Income over expenditure brought down .. .. .		31,24,224.48
<u>62,22,225.52</u>				<u>65,05,052.03</u>



# INDIAN STATISTICAL INSTITUTE

## CANTEEN

BALANCE SHEET AS AT 31st MARCH 1984

1982-83 Rs. P.	Liabilities	1983-84 Rs. P.	1982-83 Rs. P.	Assets	1983-84 Rs. P.	1982-83 Rs. P.
	Capital Fund :			Current Assets :		
3,352.44	As per last account	3,352.44	727.46	Sundry debtors	727.46	
			3,834.22	Closing stock (as taken valued and certified by the In-charge, Canteen)	10,868.21	
	Liabilities :			Cash-in-hand (as per accounts and as taken and certified by the In-charge, Canteen)	860.12	
11,884.14	Sundry creditors	9,001.84	706.84	Deposit with Milk Commissioner and other	222.00	12,473.78
—	Suspense A/c.	122.50	222.00			
				Income & Expenditure A/c.:		
			9,740.07	Balance at debit as per last account	9,740.07	
				Less : Balance transferred from Profit & Loss A/c.	9,737.37	2.70
<u>16,236.58</u>		<u>12,476.48</u>	<u>16,236.68</u>			<u>12,476.48</u>

A. MONDAL  
Senior Assistant, Canteen  
Indian Statistical Institute

M. C. DE AKIN  
Executive Officer  
Indian Statistical Institute

We have audited the annexed Balance Sheet as at 31st March 1984 of the Indian Statistical Institute, Canteen, 203 B. T. Road, Calcutta-700 025 and also the annexed Income & Expenditure Account for the year ended on that date with the Books and records maintained and produced to us have found them to be in accordance therewith. Difference in trial balance under scrutiny is kept in the suspense a/c.

10, Old Post Office Street,  
Calcutta-700 001.  
20th December 1984.

D. P. CHATTERJEE & Co.  
Chartered Accountants

FIFTYSECOND ANNUAL REPORT : 1983-84

CANTEEN

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 1984

1983-83	Expenditure	1983-84	1982-83	Income	1983-84
Rs. P.		Rs. P.	Rs. P.		Rs. P.
5,181.44	To Opening Stock	3,634.22	2,65,796.29	By Sales (Tea & Snacks)	2,65,662.27
	.. Sundry Purchase Coal (including firewood, kerosene oil)	27,390.68	1,13,000.00	.. I.S.I.	1,60,600.00
20,448.49	.. Tea & Milk	59,873.65		.. Closing Stock	10,658.21
44,605.40	.. Channa & K. khir	66,214.62	3,834.22	.. Excess of Expenditure over Income for the year transferred to Balance Sheet	
62,069.60	.. Bread & Butter	96,117.84			
83,374.38	.. Raw materials purchased (Bazar goods including sugar)		1,82,409.80		
1,65,005.84	.. Cleaning materials expenses		1,821.60		
2,251.00	.. Miscellaneous expenses		1,464.10		
877.60	.. Carriage & cartage		4,332.40		
2,798.80	.. Utensils				
—	.. Printing & Stationery		54.00		
35.70	.. License fees		20.00		
20.00	.. Staff titlu		3,462.70		
3,228.45	.. Re-pairing charges		83.00		
65.00	.. Bank commission s/c.		62.00		
48.00	.. Loading & unloading		662.00		
466.00	.. Excess of Income over Expenditure for the year transferred to Balance Sheet	9,737.37			
—					
<u>3,90,376.60</u>		<u>4,60,710.48</u>	<u>3,90,376.60</u>		<u>4,66,710.48</u>

*Note:* Expenses on salary, overtime, contribution to Provident Fund, Electrical charges etc. are borne by the Indian Statistical Institute, Facilities like accommodation, use of furniture and equipment are also provided by the Institute, free of charge.

A. MONDAL  
Senior Assistant, Canteen  
Indian Statistical Institute

M. C. DE AMIN  
Executive Officer  
Indian Statistical Institute

10, Old Post Office Street,  
Calcutta-700 001.  
20th December 1984.

D. P. CHATTERJEE & Co.  
Chartered Accountants