

# AIISH

## ANNUAL REPORT 2001-2002



**All India Institute of Speech and Hearing  
Manasagangothri, Mysore - 570 006**

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## DIRECTOR'S REPORT

The year 2001-02 was marked by a number of developmental activities aimed to expand and improve the services and facilities offered at the institute. There was emphasis on adding new infrastructure to meet this objective during the year. Efforts were intensified to provide state-of-art facility in training, clinical services, research, information dissemination and material development related to speech and hearing.

The Finance committees of the institute met on 18th October and approved a host of new programmes to the institute. Notable among them are: launching of the department of Speech-language Sciences in place of Department of Speech Sciences; launching of a new project on assistance for persons with special auditory needs; establish a nodal center for research on AAC; establish a center for preschool training for children with cerebral palsy, mental retardation and deafness; start a new prosthetic lab; establish a voice care center; start two new courses: B.S.Ed (HI) and Diploma in Hearing Aid and Earmould Technology; and construction of three new buildings of ladies hostel, an academic-administrative block, and a preschool training center.

I am happy that AIISH has made rapid strides in identifying and rehabilitating a large number of people with disorders of speech-language and hearing across the Indian subcontinent. The year saw the implementation of a number of innovative clinical programmes related to prevention, early identification and intervention for communication disorders, particularly to the school going children. These programmes have made a significant and commendable contribution towards the identification and rehabilitation of the affected individuals.

One of the significant events of the year was the completion of the construction of the new Library and Information Center. Dr. C.P. Thakur, Union Minister for Health and Family Welfare inaugurated the Library and Information Centre of AIISH on 14th July 2001.

Dr. C.P. Thakur expressed happiness that AIISH was taking up community work in one of the districts in Northern Karnataka from this year. Listing out a number of measures initiated by the Government for the benefit of the disabled, the minister underlined the need for monitoring the impact of such measures.

## ACADEMIC ACTIVITIES

AIISH has always been the center of excellence in the area of manpower generation. The primary objective of our training program is to train and shape competent young individuals into committed professionals who understand the myriad problems of our population. The institute maintained its academic excellence as in the previous years. In the last academic year, a total of 26 students with B.Sc degree and 23 students with M.Sc degree passed out from this institute with flying colours.

### Students Intake

The Executive Council in its 45th meeting approved an increase in the intake of students under the self-financing scheme. The number of seats increased from 33 to 35 seats for admission to B.Sc and from 23 to 25 for admission to M.Sc courses. This increase in the intake also helps the institute to augment its internal funds.

Number of students admitted to different courses at the  
institute in the last two years

Course	2000-01	2001-02
B.Sc I Year	33	35
M.Sc I Year	23	25
Junior Research Fellow (Ph.D)	—	04

### Junior Research Fellowships

A Junior Research Fellowship scheme was introduced during the year for pursuing doctoral program in speech & hearing. The institute offered four research fellowships in the year. The aim of the program is not only to give an impetus to research in the field, but also to equip students with research and training skills.

## Doctoral Research

No. of candidates working for Ph.D (AIISH Staff)	4
No. of candidates working for Ph. D (JRF)	4
No. of candidates awarded Ph.D	1
No. of candidates who submitted thesis during the year	2

The following AIISH staff pursued their research programmes leading to Ph.D

Name of the candidate	Title of the thesis
Ms. N. Sreedevi	Acoustic characteristics of vowels in Kannada (submitted)
Ms. N. Swapna	Fine-grained auditory discrimination in normal children and children with learning disability (submitted)
Ms. M. Pushpavathi	Language and speech motor interference in children with stuttering
Mr. S.P. Goswami	Comprehension deficits in aphasia

The following were awarded AIISH Junior Research Fellowships

Name of the Candidate	Title of the Research Proposal
Ms. Divya Menon	Speech evoked mismatch negativity: An objective measure of auditory perceptual deficits
Mr. Reddy Shivaprasad	MMN in sensory neural hearing loss - A clinical measure of speech perception
Ms. Sapna Bhat	Code mixing and code switching in bilingual aphasics
Ms. Kalaiselvi P.S.	Analysis of voice in Yakshagana folk artists



Mrs. C.S.Vanaja, Lecturer in Audiology, was awarded doctorate degree for her thesis entitled "Self assessment of hearing handicapped - A few audiological and non-audiological correlates" from the University of Mysore. She worked under the guidance of Dr. S.Nikam.

### **New Training Programmes**

The institute proposed and pursued a number of new academic programmes during the year. The important among them was the proposal to bring specialization at the master's level. Accordingly, the present M.Sc (Sp & L) which is a composite program is poised lead to two programmes: M.Sc (Speech language Pathology) and M.Sc (Audiology). The proposal has received approval from the institute bodies and is awaiting approval from the University of Mysore and RCI.

### **B.S.Ed (HI)**

The second major proposal to come through was the introduction of a programme leading to Bachelor in Special Education (Hearing impairment). The 1-year course is for candidates who already have a Bachelor's degree in education (B.Ed). The proposal is in the process of receiving approval from the UOM and the RCI and we hope to implement the same from the academic year 2002-03.

### **Diploma in Hearing Aid & Ear Mould Technology**

Another proposal is to start a 1-year diploma for 10+2 students in Hearing Aid & Ear Mould Technology. The purpose of the course is to equip students in repairing hearing aids and making ear molds. It is hoped that students so trained will start their own centers so that the much needed services are available to hearing aid users nearer to their residence. The institute bodies have approved the course, and the approval of RCI is awaited. The course would be started from 2002-03.

### **Stipend and Scholarships**

Ten AIISH merit scholarships each were awarded to students of second and final year B.Sc & second year M.Sc. In addition, B.Sc and M.Sc students, admitted in the academic year 2000-01, were paid a stipend of Rs 400/- and 650/- per month respectively.

## Short-term Training Programmes

The institute also conducted several short-term training and orientation programmes during the year. Twenty six short-term training programmes, in a chosen by the users according to their needs, were conducted during the year at the institute. The following are the areas in which the short-term training programmes were conducted.

Topic	Department	Total No
Ear Mould making	Audiology	3
Hearing aid repairs & servicing	Electronics	7
Management of the mentally retarded children	Sp.Pathology	1
Dyslexia	Sp.Pathology	1
Misarticulation	Sp.Pathology	1
Early identification of hearing impairment	Audiology	1
Speech production	Sp.Science	1
Instrumentation in Speech Sciences	Sp.Science	2
Computer aided therapy techniques	Sp.Science	1
Auditory evoked potentials	Audiology	2

## RCI Training Programme

### Master Trainers Training Programme for Training PHC Doctors

Rehabilitation Council of India has launched a national program to orient the PHC doctors in the area of prevention, early identification and management of various disabilities like hearing impairment, communication disorders, visual impairment, mental retardation and locomotor impairment. AIISH has been recognized as a training center for the orientation of PHC doctors. A total number of 18 orientation programmes were conducted to train 414 doctors at AIISH.

Karnataka Institute of Medical Sciences (KIMS) has also been recognized as one of the training centers to train PHC doctors. Two hundred and sixty four doctors were trained at KIMS, Hubli as a part of this programme. AIISH trained the master trainers required for KIMS, Hubli to conduct PHC doctors training.



## **Orientation Programmes**

RCI is also funding various orientation programmes and CRE programmes in which the following programmes were conducted:

- ❖ Development of speech and language at preschool level for hearing impaired
  - workshop for parents and educators of hearing impaired.
- ❖ Development of intelligible speech
- ❖ Interaction of NGOs with Chairman, RCI
- ❖ Grouping of IEP techniques
- ❖ Strategies at primary level primary educators
- ❖ Orientation program on AAC

## **Workshops / Seminars Conducted**

The year 2001-02 saw a number of workshops and seminars conducted at the institute. The details of the activities are given below.

### **Hearing Conservation Program in Industries: June 2001**

This workshop was organized by the Department of Audiology. The primary focus of this programme was to create awareness on the effects of the noise and noise induced hearing loss among industrial workers. Ninety people including representatives from various industries in Mysore region participated in the programme.

### **Orientation Programme on Prevention, Early Identification and Rehabilitation of Hearing Impairment and Communication Disorders**

Eleven orientation programmes related to the topic were conducted during the year 2001-02 under the project on prevention of deafness and communication disorders. Allied professionals and others, nurses, primary school teachers, grass root health level workers, anganawadi workers, and high school headmasters participated in these programs. They were given orientation on the prevention and early identification of hearing impairment in the respective population that they come across in the community. Demonstration of different behavioural techniques, as a means of screening hearing, were carried out which these groups can easily carry out in their setup. They were also trained on the use of high risk register. The aim of this program is to equip these groups with the knowledge to identify children and adults with hearing impairment and communication disorders and to referred them for further professional help.

## **Digital Technology in Rehabilitation: July 2001**

This program was conducted by M/s Widex India Pvt Ltd and organized by the Department of Audiology. The main objective of this program was to train speech and hearing professionals on the latest developments in digital technology that can be employed in the rehabilitation of the hearing impaired. Lectures and demonstrations were carried out on the most suitable procedure in selecting hearing aids for individuals with different types and degree of hearing loss. The workshop shed light on the basic techniques of programming different parameters in programmable and digital hearing aids.

## **Workshop on Repair of Hearing Aids: December 2001**

The objective of this workshop was to impart specialized technical skills in the repair, maintenance and servicing of various models of body-worn hearing aids. Nineteen technicians from Karnataka, Kerala and Tamilnadu benefited from this workshop. The programme provided the participants hands on experience in the repair of hearing aids under expert supervision.

## **Demonstration of Recent Advances in Hearing Aids: December 2001**

This program was conducted by M/s Siemens Hearing Instruments Pvt Ltd., Bangalore and organized by the Department of Audiology. The objective of this demonstration program was to train speech and hearing professionals on the latest developments in digital technology for the rehabilitation of the hearing impaired. The staff and students learnt the finer aspects of programming digital hearing aids manufactured by M/s Siemens Hearing Instruments and the criterion for the selection of these hearing aids.

## **Development of Speech and Language Skills in Hearing Impaired Children: December 2001**

This continuing rehabilitation program was sponsored by the Rehabilitation Council of India and was organized by the Department of Speech Pathology. The main objective of the CRE was to create awareness and thereby orient the parents and educators of hearing impaired children on the development and management of speech, language and hearing skills. Thirty special educators and parents attended the programme. A group discussion was also organized for the benefit of parents of hearing impaired children wherein they exchanged information and their experiences in managing hearing impaired children.



## **Development of Intelligible Speech: December 2001**

A two-day continuing rehabilitation program was sponsored by the Rehabilitation Council of India and was organized by the Department of Audiology. The programme was conducted for the educators with an objective of imparting knowledge on auditory behaviour development, role of hearing in the development of speech, hearing impairment, devices available for hearing impaired and management of speech and hearing impairment. The programme also shed light on the facilities provided by the Government for the hearing impaired. Eighteen headmasters of higher primary schools and 25 special educators participated in this programme. The outcome of this program was that the teachers were given the skills to improve the intelligibility of speech in children with speech and hearing problem.

## **Programmable Hearing Aids: January 2002**

The Department of Audiology organized this program. The objective of the workshop was to train the staff and students of the institute on the recent technology of hearing aids. As a part of the workshop, a demonstration on the programming of digital and programmable hearing aids was conducted. The hearing aid users also learnt to troubleshoot their hearing aids in this workshop.

## **Soft Ear Moulds and Programmable Hearing Aids: January 2002**

The objective of the workshop was to train the staff and students of the institute in making shells for fitting in-the-canal and completely-in-the-canal hearing aids, and to make soft ear molds. In the past, clients who were prescribed these molds were referred to external agencies for getting these moulds. Now the patients can get this facility under the same roof at AIISH, as the staff members are now able to make shells for in-the-canal and completely-in-the canal hearing aids, thus saving the time and money.

## **Demonstration of Video Endostroboscopy by Kay Elemetrics: January 2002**

The Department of Speech Sciences conducted this program. The staff and students of the institute were given a demonstration of the videoendostroboscopy systems by M/s Kay Elemetrics. This was followed by a discussion on the application of video endostroboscope in the diagnosis and management of voice disorders.

## **Demonstration of BERA & VNG Instruments: January 2002**

A demonstration of BERA and VNG instrument by Alps International was organized in January 2002. The staff and students of the institute participated in

the workshop. Orientation lectures were given on the recent developments in the instrumentation for auditory evoked potential system and videonystagmography. The program emphasized mainly on the way considerable time could be saved with the use of the BERA phon. The program also focused on the use of importance of videonystagmogram in the diagnosis of individuals having vestibular problems.

### **Coarticulation in Indian Languages: January 2002**

The primary aim of this workshop was to provide a forum for speech pathologists to exchange views on coarticulation in Indian languages and especially to discuss on labial coarticulation in Marathi, Hindi, Kannada, Malayalam, Tulu, Telugu, Tamil and Assamese. Participants were provided with hands on experience on the acoustic measurement of coarticulation followed by acoustical analysis of the data.

### **Grouping of IEP Techniques: February 2002**

This program was sponsored by the Rehabilitation Council of India and conducted by the Department of Audiology. A 2-day RCI-CRE programme was conducted for a group of 17 participants consisting of DDPI, heads of schools and educators. The objective was to educate them on the role of hearing, the impact of hearing loss, early identification, and management of speech and hearing problems. The participants were also trained on classroom acoustics and its importance.

### **Workshop on B.S.Ed Syllabus: February 2002**

AIISH is introducing a course leading to the degree of Bachelor in Special Education in the area of hearing impairment. The course attempts to bring the special educators to the field of speech and hearing as well as to integrate the two fields. The workshop focused on preparing and finalizing the syllabus for this course. Experts from the field of education, special education, speech-language pathology and audiology participated in the programme.

### **Strategies at Primary School Level for Curricular Teaching to Children with Communication Disorders - Phase III: March 2002**

This program was sponsored by the Rehabilitation Council of India and conducted by the Department of Speech Pathology. The main objectives of this program were to discuss the available strategies of teaching various skills for children with communication disorders and to formulate, improvise and maintain uniform curriculum for preschool children with communication disorders. Thirty participants comprising of special educators, regular teachers, management personnel and speech and hearing professionals took part.



This program was sponsored by the Rehabilitation council of India and conducted by the Department of Speech Pathology. The focus of the workshop was to impart theoretical training on augmentative and alternate communication to allied professionals like special educators, psychologists, physiotherapists, occupational therapists, teachers and social workers. The program was designed not only to create awareness, but also trained the participants to identify clinical groups who would require and benefit from it. The participants were also given a glimpse of augmentative and alternate communication options available in India and abroad and the importance of team approach in augmentative and alternate communication implementation.

## **CLINICAL SERVICES**

Clinical services provided in the form of diagnostic, therapeutic and counseling services to the patients with speech and hearing problems have always been an integral part of the activities of the institute. These services were extended to a total of 28,005 patients in the year 2001-02 of which 12,830 were new patients. The remaining 15,175 were registered in the previous years.

The table below gives the details of patients who visited AIISH:

No. of patients evaluated for hearing	
(a) at AIISH	7939
(b) at out-reach	3437
(c) at Extension services	4337
Total number of cases evaluated	15,713
Evaluated for providing hearing aids	2781
No. of free hearing aids issued under ADIP Scheme	129
No. of hearing aids issued under POD project	558
No. of patients evaluated for speech & language disorders	
(a) at AIISH	3337
(b) At out-reach	1682
(c) Extension services	461
Total number of cases seen for speech and language disorders	5480
No. of individual therapy sessions conducted	34187
No. of group therapy sessions conducted	1990



# National Convention of Deaf and Hearing Association

28th

uary, 2002 New Delhi



Dr. M. Jayaram is being honoured by Mr. A. Raja, Minister of state for Health and Family Welfare, with Dr. Rathna, Oration award at the ISHA conference held at New Delhi.



Dr. M. Jayaram, Director, AIISH handed over a Cheque for the prime ministers relief fund to Dr. C. P. Thakur, Hon'ble Minister for Health and Family Welfare, Govt. of India, an amount equivalent to one day salary / stipend of staff and students was handed over.



Dr. C.P. Thakur, Hon'ble Minister for Health and Family Welfare, Govt. of India declared open the New building of the AIISH Library and Information centre. Mr. A. Ramadas, MLA, is seen next to him.



Dr. C.P. Thakur, Hon'ble Minister for Health and Family Welfare, Govt. of India, Inaugurating the New building of the AIISH Library and Information centre by lighting the lamp



## Community Service Programme

AIISH has been organizing clinical programs at the community. These programmes are very popular and are made use of by a large number of people. Most of these programs are sponsored by NGO's.

Some statistics on the extension programs are given below.

No. of people evaluated for hearing loss at camps	3437
No. of people referred to the institute	830
No. of free hearing aids issued	328
No. of people evaluated for speech-language problems	461
No. of people referred to the institute	91

### Assistance to Disabled Persons for Purchase/Fitting of Aids and Appliances

Under the ADIP scheme, 129 hearing aids were issued free of cost. The cost of these hearing aids was met from the interest earned on grants under the ADIP scheme. The Ministry of Social Justice and Empowerment, Government of India sanctioned a grant of Rs. 13 lakhs under the ADIP scheme. An additional, 558 hearing aids were issued free of cost to the beneficiaries under the Prevention of Deafness project.

### Prevention of Deafness and Communication Disorders

As in the previous years, many clinical as well as public education activities were carried out under the project 'Prevention of deafness and communication disorders', funded by the Ministry of Health and Family Welfare, Government of India. The activities carried out under this programme included

- ♦ Screening of infants for hearing and speech problems
- ♦ Screening of school children for hearing loss and communication disorders
- ♦ Hearing conservation programme for industrial workers
- ♦ Hearing screening of senior citizens
- ♦ Orientation programs for allied professionals and public
- ♦ Preparation and production of resource material

Hearing screening was carried out on infants at local hospitals, immunization centers and pulse polio centers. Speech and hearing screening was also done on school children, industrial workers and individuals attending the camps. The table below illustrates the screening programmes carried out under this project.

No. of infants screened	2516
No. referred to AIISH	193
No. of school children screened	1821
No. referred to AIISH	635
No. of industrial workers screened	114
No. referred to AIISH	12
No. of people screened in camps	3437

The following public education booklets and handbills were prepared:

- ❖ Booklet on Prevention of hearing loss in expectant mothers
- ❖ Booklet on Prevention of ear discharge
- ❖ Booklet on Effects of traffic noise on hearing
- ❖ Handbill on signs and symptoms of hearing loss in school children.
- ❖ Handbill on early identification of hearing loss in infants
- ❖ Public education pamphlets and posters were distributed in camps, extension services and during education tour
- ❖ Video clippings regarding the ill effects of noise were developed and screened in the local cable network.
- ❖ Slogans on prevention of hearing loss were prepared in English, Kannada and Hindi and were displayed at various traffic junctions in the city of Mysore, during the traffic awareness week.

The following table shows different groups, professionals and technicians who were given orientation lectures on the prevention, identification and management of hearing impairment.

Target group	No.
Headmasters and Headmistresses	315
Traffic Police	189
Trainee Nurses	26
CBR workers	22
TCH Trainees	17
School teachers	579
Anganawadi workers	49
Hearing aid users	43
Physiotherapy trainees	14
Industrial workers	88
Total	1342

## RESEARCH

AIISH has laid considerable emphasis on research and developmental work as key components of its activities. Research is carried out at several levels at the institute: Projects by the faculty funded from national funding agencies; doctoral work by students; and dissertations and independent projects carried out by postgraduate students.

### AIISH Research Fund

A significant development during the year was the establishment of an AIISH Research Fund at the institute with an initial grant of Rs. 10 lakhs from the Ministry. This is yet another milestone in the history of the institute. The area of speech and hearing being a relatively new and non-traditional discipline provides ample scope for research, especially, in a multilingual country like India. The fund is expected to give a boost to research attempts at the institute and the country. Under the fund, any professional, in the core and allied areas and working in a Government institute, can take up a research project along with one of the faculty members of the institute.



Grants of upto Rs. 1.5 lakhs can be awarded under the project. The fund was inaugurated by Shri A.Ramadas, MLA in July 2001. The following projects were taken up under the scheme, during the year:

Title of the Project	Budget Rs.
Voicing contrast in Indian languages: Some acoustic measures Investigator : Dr. S.R. Savithri	96,000.00
Associated problems as a basis for sub grouping of disfluent children Investigators: Dr. Y.V. Geetha & Dr. M. Jayaram	1,20,000.00
Investigation of reading skills in children with reading disability - Indian perspective Investigators: Dr. K.S. Prema & Dr. M. Jayaram	90,000.00
Development of intonation in the early linguistic stage Investigator: Dr. R. Manjula	89,000.00

## Ongoing Projects

### Fabrication of Mobile Audiological Unit

Audiological evaluation needs to be carried out in a sound treated room. However, in our outreach and extension service programmes, it is difficult to control the ambient noise and therefore, audiological testing becomes very difficult. In an effort to overcome this problem, a project was undertaken to build a mobile van, sound treated for audiological evaluation, with a grant of Rs 15 lakhs from the Government of Karnataka. The project was taken up in 1991 with NAL, Bangalore who were to build the body of the bus with special FRP material which is supposed to provide good attenuation of sound. NAL completed the body-building of the bus and handed over the same to the institute in January 2001. Sound treatment of the different cubicles inside the bus is to be taken up. The mobile unit provides a 2-room set up for audiometry, a room for ABR and impedance testing and another room for hearing aid trial and fitment.

### Preparation of Training Modules on Prevention of Deafness

The primary aim of the project, funded by WHO, is to develop training module for industrial workers, hearing impaired individuals, the guardians of the

hearing impaired children, nurses and medical professionals, grass-root level workers etc on the ways and means of prevention of deafness. A module related to basic sound generation is also planned under the programme. Designing and printing of the training module for nurses is in progress.

### **Development of Normative Data in the Pre-vocational Assessment of Communicatively Handicapped Persons**

A prevocational assessment devise for assessment of communicatively handicapped persons is being developed and standardized. The completed scale is expected to help in identifying the job needs of adults with communication disorders by accommodating their work potentials, aptitude and interests.

### **Development and Standardization of a Battery of Tests in the Assessment of Intelligence and Cognitive Disabilities in Communicatively Handicapped**

Most of the intelligence tests used in the field of communication disorders require revalidation. This project has chosen various intelligence tests in contemporary use for their revalidation and upgradation of norms for regular clinical use and research applications.

### **Development of FM Hearing Aid System**

FM hearing aid is thought to be best suited for classroom education of hearing impaired. The objective of the project is to develop indigenous technology for FM hearing aid system - for both receiver and transmitter. Indigenous capacity would cut down the cost of production and operation and will be more affordable. Preliminary studies have been done and the design of the transmitter part is in progress.

The project with Dr. M. Jayaram, Director, as principal investigator and Mr. Mr. Ajish K. Abraham and Mr. S.R. Srinivas as coinvestigators is funded by the S & T Mission Mode of the DRC programme of the Ministry of Social Justice & Empowerment, Government of India at a cost of Rs. 5.6 lakhs.

### **Development of Micro-controller Based Voice Light**

The project aims to indigenously develop voice light which gives visual indication of the sound produced by persons with speech disorder. The micro controller based circuit will calculate the phonation duration as well as the intensity produced in each frequency band. The micro controller based circuit has already been developed and tested with simulated audio signals.

## **Development of S-indicator**

S-indicator is an instrument, which gives a visual indication of sounds 'sa' and 'sha' sounds in speech. Aim of the project is to indigenously develop the instrument to cut down the cost of production. This will enable all the speech therapy clinics in the country to have the instrument at affordable rates. The basic circuit has been developed. Preliminary clinical trials have been done and the results are found to be satisfactory.

## **Development of Intonation in Early Linguistic Stage**

This is a longitudinal study which aims to investigate the developmental features of intonation in infants from 0.4 to 1.0 year. Infants of parents speaking native languages of Kannada and Urdu are included in order to study the universal or differential trait in intonation if any.

## **Investigation of Reading Skills in Children with Reading Disability - Indian Perspective**

India is a country of diverse linguistic cultures. With thousands of languages and dialects spoken, Multilingualism and multi-literacy has crept into our education system. Hence, it is essential to investigate the similarities and the differences in the characteristics exhibited by children with typical reading disabilities. Also, it is required to look into other factors that are responsible for the problem. The project is aimed at a retrospective analysis of reading skills of children identified as having reading disability. The data would be collected from case files registered at AIISH, Mysore on demographic factors, reading, writing and language parameters.

## **Associated Problems as a Basis for Subgrouping Disfluent Children**

The project aims at subgrouping young disfluent children. A detailed battery of tests for evaluating language, articulatory, reading and writing skills will be used along with the assessment for learning disability and aphasic features. These characteristics along with the family history and disfluency characteristics would be used to subgroup children with disfluency. This will throw more light on the often reported heterogenic factors in stuttering and the need for subgrouping children for research purposes.

## **Voicing Contrast in Indian Languages: Acoustical Measurements**

The project aims at investigating voicing parameters of stop consonants in 16 Indian languages - Punjabi, Kashmiri, Assameese, Hindi, Kannada, Tamil.



Telugu, Malayalam, Kodava, Tulu, Rajasthani, Gujarathi, Marathi, Bhojpuri, Oriya and Bengali. Specifically 10 acoustic parameters : VOT, F0, F1 transition, burst energy, and overall duration would be measured to understand the voicing characteristics of these languages. Knowledge about these parameters will help in teaching voicing to the hearing impaired.

### **Glottal Behavior in Normals and Persons with Speech Disorders**

This project was taken up as part of the research activities of the institute. The objective of the project is to extract electroglottographic patterns in normals and patients with various voice disorders using electroglottograph. Electroglottograms of 45 normal subjects and 334 patients with voice disorders were extracted.

### **Differential Diagnosis of Stuttering and Normal Nonfluency**

This project as a part of research activities of the institute, aims at evolving a protocol for differentially diagnosing stuttering and normal nonfluency. This protocol can be used in the country in future. Data collection is under progress and 57 samples have been collected till date.

### **Developing Software for Diagnosis of Speech Disorders**

Voice data have been recorded and a database for various voice disorders has been constructed. In this regard, from 150 patients data have been computerized using the Vaghmi (windows) software.

## **INFRASTRUCTURE DEVELOPMENT**

### **AIISH Library and Information Centre**

The most significant event of the year was the completion of the construction of new AIISH Library and Information Center. The AIISH Library and Information Centre is a specialized documentation facility for rehabilitation professionals, particularly in the area of speech and hearing. The objective of the center is to provide books and journals, computerized search, and internet services. The Library has an impressive collection of resource materials in different forms and in different areas like Speech pathology, Audiology, ENT, Neurology, Electronics and Biomedical instrumentation, Psychology and Linguistics. The entire collection is systematically organized in order to provide an easy access to desired information. The book collection is being bar coded in order to facilitate quick

transaction and generation of up-to-date and accurate circulation and inventory statistics. Bar code technology also enables stock verification of the library books in just 24 hours while this task used to take 30 days earlier.

AIISH Library and information center has also procured Bar Code generation software, which is a window based software. It offers a lot of flexibility in usage especially with database. It has also procured library management software "LIBRIS", which is GUI based management procedure. It allows intranet mailing facility, stock verification, cataloguing of multimedia files etc. This software is compatible with any database. OPAC (open public access catalogue) of LIBRIS is a web browser based program. Through this, it is easy to access library information from the desktop computer using LAN.

### **AIISH Departmental Canteen**

A spacious canteen with a built in floor area of 2,900 Sq. ft. and built at a cost of Rs. 11 lakhs provides clean and tasty food at reasonable rates to the patients, staff and students of AIISH. It was inaugurated by Maj. H.P.S. Ahluwalia, Chairman of the Rehabilitation Council of India in January 2002.

### **Sound-treated Laboratories for Hearing Testing**

The Department of Audiology is now well equipped to provide specialized services to different hearing impaired populations. It has acquired a new testing facility with 16 sound treated rooms which confirm to international standards. The increase in test facilities will not only improve the quality of services offered by the department, but also reduce the patient's waiting time to a great extent. A facility has come up with a cost of Rs. 53 lakhs.

### **Parking Areas**

Two spacious parking lots were constructed to enable safe and organized vehicle parking of the staff, students and visitors of the institute.

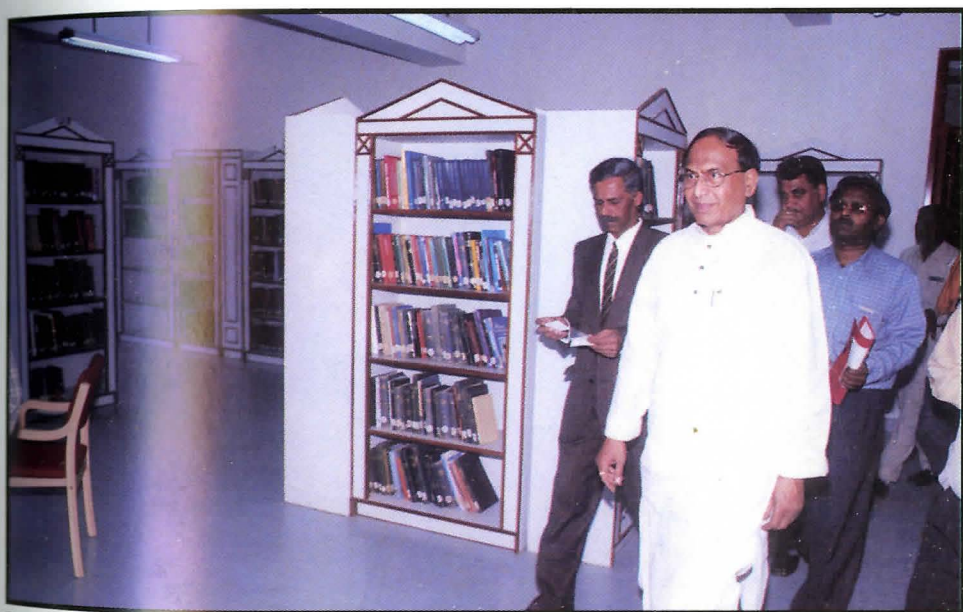
### **AIISH Multipurpose Therapy Clinic**

The construction of a speech-language therapy clinic building with a built in floor space of 55,000 sq. ft. is in progress. The foundation stone for this had been laid by Dr. C.P. Thakur, Hon'ble Minister for Health and Family Welfare, Government of India during his visit to the institute. This will enable the institute to provide clinical services as never before and is a milestone in the history of the institute.



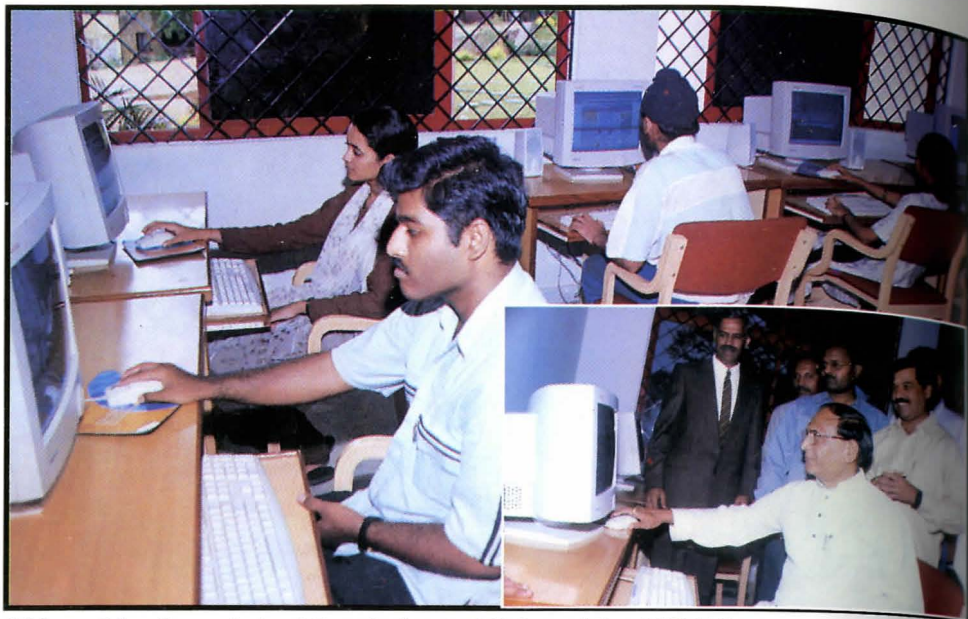


Dr. C.P. Thakur, Hon'ble Minister for Health and Family Welfare, Govt. of India, addressing the gathering during the Inaugural Function of AIISH Library and Information centre.



Dr. C.P. Thakur, Hon'ble Minister for Health and Family Welfare, Govt. of India went through the newly constructed Library Complex and was very impressed with the books at the Library.





A View of the Computerized Functioning and Set up of the AIISH Library. AIISH library has gone completely digital. Hon'ble Minister for Health and Family Welfare going through the different aspects of computerization of the Library. (inset)



Dr. C.P. Thakur, Hon'ble Minister of Health and Family Welfare, Govt. of India, addressing the Press after inaugurating the new building of the AIISH Library and Information centre





## **AIISH Sports Complex**

The AIISH Sports complex with a floor space of 14,000 Sq. ft. provides facilities for indoor and outdoor games for staff, students and all Central Government employees. The sports complex is planned with a budget of Rs. 1 crore and will have facilities for shuttle badminton, carrom and table tennis. The badminton hall will serve the double purpose of a meeting hall with a seating capacity of 400. The complex will also have a open air amphi theatre with a seating capacity of 350. The construction of the complex is in progress.

## **Infrastructure Development**

Zodiac 901/P Impedance Audiometer

Portable two channel clinical audiometer Maico MA 53

Clinical impedance audiometer AZ26

Hearing aid Hansaton Starlite

GSI Tymptstar impedance audiometer

Interacoustics Mini Tymp MT10

GSI 68 audiometers

STPI router, Computer networking of the entire institute, Internet server, Library server, Libris software, Library access control system and bar code reader.

Siemen's Hi-com 150 EPABX system having 160 extensions with two digital lines, voice- mail facility and call billing software.

CSL 4400 (Computerized Speech Lab)

## **OTHERS**

### **Institute Day**

The 36th anniversary of the institute was celebrated on 10th October 2001. Sri. H. Vishwanath, Hon'ble Minister of Primary Education, Govt. of Karnataka was the chief guest. Sri. B.K. Prakash, Mayor, Corporation of the city of Mysore graced the function and laid the foundation stone for AIISH Gymkhana complex.

Speaking on the occasion, Sri H. Vishwanath said that a comprehensive syllabus for the hearing disabled would be introduced in the education programme. Sri H. Vishwanath and Sri B.K. Prakash distributed prizes to winners of different



competitions like sports, cultural events, quiz etc. held separately for students, staff and patients of the institute.

### **A New Tradition**

A new scheme introduced this year was to honour the employees who retired from AIISH services in the previous year. Under this, the institute honoured Dr. M.V. Susheela, Professor & HOD, ENT and Sri N.S. Subramanya, Accountant. A colourful cultural programme was organized in which students, staff and patients enthusiastically participated.

Ms. Anshula Odekar received the Best Clinician award. This award is given to a final year M.Sc student for best clinical performance.

Smt. Sabeena Joseph, mother of Elizabeth, a child with delayed speech and language with hearing loss received the Mother of the Year award. This award is given to a woman caretaker who makes outstanding contribution in terms of home training and support towards overall improvement of the patients.

### **Visitors**

Smt. Bhavani Thyagarajan, Joint Secretary, Ministry of Health & Family Welfare, Government of India, visited the institute and was impressed by the activities of the institute.

Mrs. Ira Ray, Additional DGHS, Government of India visited the institute in June 2001 and went through the developmental activities and programmes of the institute.

State Health Secretary Sri A.K.M. Nayak visited the AIISH, Mysore on 22nd November 2001 and inaugurated the "Master's Training Programme" conducted with assistance from the Rehabilitation Council of India. Speaking on the programme, he said that the PHC doctors in the rural areas should be encouraged to benefit from the RCI training programmes, so that their services can be better utilized in treating the hearing impaired people. Further, he said that NGO's and Anganwadi centers should also be involved in the above programme.

Sri R. Guru, Managing Director of Rangson's Group, inaugurated a workshop for "Parents and pre-school educators of hearing impaired children on development of speech and language". Speaking on the occasion he said that it is very important to educate the parents on hearing impairment and to identify the same at an earlier



The New Library and Information Centre of AIISH



Smt. Bhavani Thyagarajan, Joint Secretary, Ministry of Health and Family Welfare and Dr. Ira Ray, Additional DGHS, Govt. of India are being briefed on ALD's.







Dr. Ira Ray, Additional DGHS and Smt. Bhavani Thyagarajan, Joint Secretary Ministry of Health & Family Welfare, Govt. of India going through the Audiology Department



Smt. Bhavani Thyagarajan, Joint Secretary Ministry of Health & Family Welfare planting a sapling in front of the AIISH Library and Information Centre during her visit to the Institute.





stage, so that children with hearing impairment get corrective treatment at the earliest.

Dr. G. Ravindra, Principal, RIE, Mysore inaugurated a workshop on "Strategies at Primary Level for Curricular Teaching for Children with Communication Disorders". He said that there is a need to look into the fundamental problems faced by primary and pre-primary education sectors, so that, corrective action can be initiated to get the full benefite to their potential.

Maj. H.P.S. Ahluwalia, Chairman of the Rehabilitation Council of India inaugurated the workshop on "Prevention of hearing loss and communication Disorders" in January 2002. He also inaugurated AIISH canteen. A highlight of his visit was the interaction meet with the NGOs of Mysore and Chamarajnagar Districts. The interaction gave the NGOs an opportunity to know the RCI, and facilities and assistance provided by the Council for the welfare of persons with disabilities. In turn, RCI got a better awareness of the problems faced by NGO's in their work in social and health sectors.

Mrs. Azeeza Hydani, Speech & Hearing Professional, Dr. Brendan Murray, Clinical Application Manager, Nucleus Corporation, Asia Pacific Region, Australia,

Dr. Robert T. Mobley, Director, Centre for Global Education & Professor, Department of Education, Gallaudet University, Florida, Washington and Dr. Parthasarathy, Associate Professor, Illinois, U.S.A. visited the institute.

### AIISH GYMKHANA

Sri V.K. Prakash, the worshipful Mayor of the city of Mysore, formally inaugurated the AIISH Gymkhana on 23rd October 2001. The objectives of the GYMKHANA are to create, foster and maintain friendly relation among the staff and students of the AIISH, as well as with other organizations. The AIISH Gymkhana will foster social, cultural and sports interaction between AIISH and other organizations. The staff club of AIISH and the students association have been merged in the Gymkhana. Thus, there is only the association for all the staff and students of AIISH.

The Gymkhana would be a platform for recreational, social and cultural activities for the members of the GYMKHANA. This will also foster, encourage, sustain and co-ordinate sports, art, cultural, literary and other allied interaction

and provide an organizational platform and infrastructure facilities for regular practice of athletics, gymnastics, indoor and outdoor games.

### **AIISH Alumni**

AIISH Alumni aims to serve as a forum to promote and foster relationship between the alumni, present students, staff and the management of AIISH with the basic objective of exchange of ideas. The aim is to bring together the students of yester years for interaction and exchange of ideas. This will generally help to serve the Alma mater in achieving excellence in technical education. Effects are on way to register the association under the Karnataka Society Registration Act.

### **National Service Scheme**

The NSS Unit of this institute has always been active in carrying out a wide range of activities. The theme of NSS activities was 'Cultural exchange'. A talent day was conducted in September 2001 in which 110 students participated. As a part of environmental protection activities, the staff and student volunteers of AIISH carried out tree planting. A total of 214 teak saplings were planted at the AIISH campus.

A 2-year longitudinal health project to be carried out in three phases was launched in the year 2000-2001. The project aims at identifying people with speech and hearing problems and mental retardation. It is planned to adopt seven villages of the Yelwala Panchayat of Mysore District. As a part of the II phase of 'Rural Based Health Project', a screening camp was carried out in which seven experts and 17 students participated. In the camp, 175 individuals with various speech and hearing disorders were screened, three hearing aids issued and three mentally retarded individuals received certificates for financial aid.

### **Sports and Adventure Activities**

The institute organized the following sports and extracurricular activities in which the students and the staff participated.

A 3-day recreational trip to Jog, Yana and Murudeshwara,

A 3-day trekking programme to 'Kumara Parvatha', Subramanya.

Mixed Double Wicket Cricket Tournament

Mixed Volley Ball Tournament category.

## Student Activities

The year 2001-02 was an active year for the students of AIISH. They participated in a variety of programmes covering academic, cultural, sports, clinical and social service. The following students brought accolades to the institute in the form of best paper awards at the annual conference of the Indian Speech and Hearing Association held at Delhi in February 2002.

Ms. Banumathy, III B.Sc: Young scientist award for her paper on "Clinical considerations in developmental apraxia of speech".

Ms. Neha Rawath, II M.Sc: Mukthesh award for her paper on "Perception and production of phonemes by dysarthric clients".

Ms. Srividya B.A., II M.Sc: Best paper award for her paper entitled "Script based intervention for reading disability - Speech language pathologist's role".

## Public Education and Material Development

The following public education and training materials were prepared during the year:

Booklet on prevention of hearing loss in expectant mothers

Booklet on prevention of ear discharge

Booklet on effects of traffic noise on hearing

Hand bill on signs and symptoms of hearing loss in school children

Handbill on early identification of hearing loss in infants.

- ♦ Seven home training programs were translated into four different languages for different disorders.
- ♦ Curriculum for preschool children with communication disorders is completed.
- ♦ Booklets and charts to teach various language concepts, prelinguistic skills and articulation was developed.
- ♦ Electronic articulation posture display to provide visual feedback.
- ♦ Articulation therapy manual (5 audio cassettes), auditory training material (English and Malayalam) was developed.



- ❖ Charts were developed for public education.
- ❖ Booklets to teach word segmentation and blending for children with learning disability.
- ❖ Flash cards were prepared to teach various concepts.
- ❖ 17 materials to teach speech and language, reading, writing, articulating skills was developed as a part of I B.Sc and I M.Sc assignments
- ❖ Device like See-scape was developed for blowing exercises.

### **Official Language Implementation**

Usage of Hindi in the administration of the institute is being progressively increased. It is now being used in the preparation of annual report, audited statement of accounts, performance budget and also in clinical services. The institute sponsored 10 individuals to take different Hindi examinations. Different competitions were held in Hindi as part of the Hindi Week celebrations.

### **Staff Club Tournaments**

Inter institutional Sports tournament for Central Government employees organization was organized by AIISH in January 2002. A total of 200 participants representing 45 different Central Government organizations located in Mysore participated in the tournament. Competitions was conducted in six sports - cricket, badminton, chess, carom, table tennis and volleyball.

### **Assured Career Progression**

Assured Career Progression scheme was introduced in the year 2001-02 and made effective from 9.8.99 as envisaged in GOI orders. A total of 69 staff members benefited from this and the number of beneficiaries till 31.3.2002 are as shown below:

Group 'B'	-	03
Group 'C'	-	32
Group 'D'	-	34

### **Fiscal Matters**

Grants received by the institute during 2001-02 from different sources are as follows:

Grant in aid (Plan)	Rs.600.00 lakhs
Grant in aid (Non-plan)	Rs.187.40 lakhs
ADIP	Rs. 13.00 lakhs
Internal revenue	Rs. 79.30 lakhs
Total	Rs.879.70 lakhs

### Honors

Dr. M. Jayaram was honored with Dr. Rathna Oration Award at the ISHA Conference held at New Delhi during February 2002.

Dr. M. Jayaram was nominated a Member of the Academic Council, National Institute for Mentally Handicapped, and Sub-Committee on Speech and Hearing of the RCI.

Dr. M. Jayaram was nominated as Governing Council Member of District Primary Education Programme (DPEP).

Dr S.R. Savithri was awarded the Sir. C. V. Raman award for the paper "Acoustic analysis of laughter" published in the Journal of Acoustical Society of India.

Dr. S. Venkatesan received the N.N. Sen award for the paper "Play activities in children with mental retardation " presented at the conference of The Indian Association of Clinical Psychologists.

### AIISH in Media

The mass communication media of the country (TV, Radio and news papers) gave excellent coverage of the activities and programs of the institute during the year. The following are the some of the programs which the media did specially for the institute.

Press conference addressed by the Director on 27th June 2001 to highlight the features Audiology sound treated labs with state-of-art technology.

Press conference held on 12th July 2001 on the inauguration of Library and Information center, and the computerization of library services at AIISH.

Coverage of opening of new library block by Dr. C.P. Thakur, Hon'ble Union Minister for Health & Family Welfare on 14th July 2001 and press conference addressed by the Hon'ble Minister.

An article specially brought on 28th August 2001 by the newspapers 'Udayavani' and 'Vijaya' on the occasion of 36th Annual Day celebrations of the institute. This coverage was also carried in the internet edition by 'Udayavani'.

A supplement in English daily 'Deccan Herald' highlighting the activities of the institute.

'District Press Reporter's Association' invited Dr. M. Jayaram, Director for a press conference on 26th January 2001. The press conference was covered by all leading newspapers and TV channels.

A supplement on the activities of AIISH appeared in the Kannada daily Prajavani on 22 October 2001.

'Digantha' published an article on AIISH in their annual special issue in March 2002.

### **Electronic Media**

In September 2001, a phone-in-programme 'Radio Doctor' by AIR was broadcast. Dr. M. Jayaram, Director, AIISH answered the queries put up by the listeners.

Siti cable channel televised an interview with the Director under their programme 'Vedike' on 25th November 2001.

An interview with Director was conducted on 19th February 2002 by Audio Visual Research Centre to be telecast on DD-1 channel shortly.

'Udaya TV' telecasted an interview with Dr. M. Jayaram, Director in their popular programme 'Parichaya' on 25th February 2002.

Apart from the above special coverage, news items on various workshops, seminars and other activities where dignitaries like Major H.P.S. Ahluwalia, Chairman- RCI, Mr. R. Guru, Chief of Mysore Agenda Task Force, Mr. A.K.M. Nayak, State Health Secretary, Government of Karnataka, Dr. G. Ravindra, Principal, RIE, graced the function were also covered by all major news papers.



## Acknowledgements

The Ministry of Health and Family Welfare has continued to provide the administrative guidance and financial support to the institute as in the previous years. I express my sincere thanks to Dr. C. P. Thakur, the Hon'ble Union Minister for Health and Family Welfare for his keen interest in the activities of the institute. On this occasion, I acknowledge with gratitude, the co-operation and support extended by the entire faculty, students and staff members of this institute throughout this year. My special thanks are reserved for our friends and well-wishers in the media (TV, Radio and News papers ) who rendered excellent service to the institute during the year.

**Dr. M. JAYARAM**

Director

# DEPARTMENT OF AUDIOLOGY

The Department of Audiology is one of the major departments of the institute. It deals with normal and deviant aspects of hearing. It offers diagnostic and rehabilitative services to the hearing impaired individuals. During the year 2001-2002, the department continued to pursue its objectives by (a) training postgraduate and undergraduate students in audiology, (b) providing hearing evaluation, hearing aid trial and ear molds for hearing handicapped population, (c) carrying out research in the areas of hearing disorders, (d) conducting seminars, workshops, short-term training programmes, public education programmes and developing resource material and (e) providing extension services in collaboration with other agencies.

## Major Achievement

In order to provide services, in power with highly acclaimed international centers, the department moved into the state-of-the-art test facility that has been fabricated. The facility has sixteen sound-treated rooms wherein specialized services are provided for various hearing disorders and individuals of all age groups. The services provided in this facility are unsurpassed by any other speech and hearing center in India.

## TEACHING AND TRAINING

Through out the year the undergraduate and post-graduate students were given theoretical and practical training in Audiology. Eleven theoretical courses were conducted besides guiding students in carrying out independent projects and dissertations. The practical training involved taking case history, evaluation and diagnosis of various hearing disorders. In addition, students were trained to carry out special tests for differential diagnosis of neurological and psychological disorders of hearing. They were also imparted practical training in hearing aid selection, prescription, making of ear molds, guidance and counselling the needy.

### Short-term Training Programmes

The following short-term training programmes were conducted for the speech and hearing and allied professionals:

Title	No. conducted
Auditory evoked potentials	2
Ear mould making	3
Early identification of hearing impairment	1

The following students underwent training in various activities of the department:

- ♦ A student from Master in Rehabilitation Sciences, Trichy
- ♦ A postgraduate student of ENT from Medical college, Bellary
- ♦ 2 Bio-medical students from MIT

### Ph.D Programme

Mrs. C.S.Vanaja, Lecturer in Audiology, was awarded doctorate degree for her thesis entitled "Self assessment of hearing handicapped - A few audiological and non-audiological correlates" from the University of Mysore. She worked under the guidance of Dr. S.Nikam.

The following thesis is in progress under the guidance of Dr. C.S. Ramachandra, University of Mysore.

Ms. K.J. Ramadevi Sreenivas: "Phonological Profile in Kannada: A Study on hearing impaired".

### Dissertations and Independent Projects

During the year 5 dissertations and 21 independent projects were completed under the supervision of the department staff . The titles are as follows

### Dissertations Submitted

Name of the Student	Title of the Dissertation
Ajith Kumar U	Involvement of medial olivocochlear bundle in perception of speech in noise



Vinay S.N.

Compressional circuits: A unique replacement for outer hair cell loss in noise induced hearing loss patients

Naveen K.N.

Real-ear-to-coupler differences in children

Suresha B

Effect of audiometric configuration on ABR

Purnima M.N.

Predicting behavioural BC thresholds using BC tonal ABR

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### Independent Projects Submitted

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Name of the Student

Title of the Project

Kavita Elizabeth Mascarenhas A Tutorial on "Pure tone audiometry"

Anupriya

Comparison of BOA and OAE in hearing screening programs

Sabeena Kurian

Hearing screening procedures - current state of art

Sharad Govil

Middle and late latency responses in subjects with auditory neuropathy

Kiruthika C

Comparison of P300 elicited in active and passive listening paradigm

Sreevidya B. A.

The time-intensity trading relationships in LLR in normals

Krupa Elizabeth Daniel

I/P - O/P function and threshold estimation using OAE in normals and industrial workers.

Neha Rawat

Development of environment sound test for assessing listening skills in children

Anitha T

Modified high risk register (HHR) for professionals and non-professionals - formulation and its efficacy

Pamela Samaddar

T.V. Listening devices for the hearing impaired: A comparison

Name of the student

Title of the Project

Mukesh Tyagi

Comparison of acoustic reflex threshold and acoustic reflex growth function in individuals with normal hearing and with sensori-neural hearing loss at varying click rates

Anna Shiam Kattapuram

Pure-tone hearing screening in children using automatic versus manual presentation

Seetha L

Recent advances in cochlear implants - A review

Prasanna Kumar E

Protocol for selection of FM systems for the hearing impaired

Sathish K

Efficacy of orientation programs: A follow up

Aditi Chakravarti

Review of technology to improve signal to noise ratio in hearing instruments

Nithya Balakrishnan

Non-linear hearing aids - A review

Gowri Krishna

Dichotic CV-revised test: Normative data for children

Siddhartha C. S.

Multi component tympanometry in diagnosis of middle ear pathology

Mathew Andrews

A tutorial on electronystagmography

Ananti T

Evaluation of efficacy tinnitus relief system

Further, 10 dissertations and 26 independent projects were under progress by the supervision of the departmental staff. The titles are as follows:

### Dissertations in Progress

Name of the student

Title of the Dissertation

Anitha T.

Auditory learning manual for English speaking hearing-impaired children

Anu Priya

Hemisphere asymmetry of tone evoked P300

Name of the student	Title of the Dissertation
Kavitha Elizabeth Mascarenhas	A high frequency Kannada speech identification test adults
Mukesh Tyagi	Auditory evoked potentials in children with history of otitis media with effusion
Nithya Balakrishnan	Noise induced vestibular dysfunction
Sabeena Kurian	Influence of speech-reader variables on speech reading
Satish K.	Hearing profile in orchestral performers
Sharad Govil	Effect of age on contra lateral suppression of OAE and speech identification in noise
Siddartha C. S.	Aided speech recognition scores and Psycho physical tuning curves in cochlear pathology cases
Sreevidya B. A.	MMN for duration deviance in normal children, adults and children with learning disorder

### Independent Projects in Progress

Name of the student	Title of the Project
Amala Agnes James	Comparison of two hearing aid selection procedures
Amit Gupta	Computer based interactive learning program on ABR
Chandni Jain	Speech identification in adults: A comparison between computer and CD presentation
Chaya Devie N	Hand out on the management of hyperacusis
Delcy Janet J	Hand out for auditory management of auditory processing disorder



Name of the student	Title of the Project
Gopi Sankar R	Relationship between discrete stimuli and speech loudness discomfort levels among hearing aid users
Jayashree C. Shanbal	Self-report tinnitus handicap questionnaire
Jessy George	Psychological tuning curve in middle ear pathology with 'A' type tympanogram
Komal Khanna	Comparison of functional gain and insertion gain in conductive hearing loss
Kripal Singh	Effect of altitude calibration on results of tympanometry
Mamatha N. M.	Relationship between discrete stimuli and speech loudness discomfort levels among hearing impaired subjects using different transducers
Mili C. Samuel	The long term average speech spectrum in Malayalam
Namrata M. Mudkatte	Psychological tuning curves in otitis media
Pawan Kumar Sah	Efficacy of tutorial on pure tone audiometry
Ponnumani Somasundaran	A tutorial on basics of psychoacoustics
Rakhi Lakshmi S	Management of noise induced hearing loss - A review
Ramya K. M.	Speech identification in children: A comparison between computer and CD presentation
Ranganathan M	Analysis of SNR of normal ABR
Sandeep M	Evaluating for specificity of medial efferent fibres through contralateral suppression of OAEs
Savitha V. H.	Efficacy of extended high frequency audiometry and distortion product otoacoustic emissions as early identifiers of noise induced hearing loss
Sethu Karthikeyan	Efficacy of tutorial on acoustic immittance measurements

Name of the student	Title of the Project
Vani Rupela	Long term average speech spectrum in Hindi
Venkata Satya Sai Ram V	Long term average speech spectrum in Kannada
Vimi Mathew Madathil	A computer based question bank on oto-acoustic emission
Gurupreet Kaur	Comparison of FM group hearing system with conventional hearing aids using probe mic measurements
Mukunthan S	Effect of length and diameter of the ear mold on the frequency response of the hearing aid

### Workshops

The following workshops were conducted by the department, with the aim of imparting information regarding prevention of hearing impairment and deafness.

Program/Target Group	Month
Digital technology rehabilitation organized by the department, which was conducted by M/s Widex India Pvt. Ltd.	July
Grass-root level workers	September
Anganwadi workers	October
Hearing aid users	October
Nursing trainees from SCVDS (2 batches)	November
Nursing trainees from Vishwabharathi institute (2 batches)	November
Development of speech and language skills in hearing impaired children	December
Development of intelligible speech for the educators (RCI-CRE program)	December

Program/Target Group	Month
Demonstration of recent advances in hearing aids - conducted by M/s Siemens Hearing Instruments Pvt. Ltd., Bangalore	December
Soft earmolds and programming hearing aids - conducted by M/s Phonak	January
Prevention of hearing impairment and communication disorders for nursing trainers	January
Demonstration of visual nyastagtmography & auditory evoked potentials by M/s Alps International Pvt. Ltd.	January
Grouping of IEP techniques for educators (RCI -CRE Program)	February

## CLINICAL SERVICES

### Hearing Evaluation

In the department of Audiology, both normal as well as deviant aspects of hearing were evaluated. Those individuals who were found to have a hearing impairment were either referred for medical/surgical line of treatment or provided with an audiological line of treatment. A total of 15713 individuals were evaluated for their hearing problems. Of them, 7939 cases were evaluated at AIISH, 4337 were screened at extension centers and 3437 evaluated/screened in out-reach programs (camps). Detailed evaluation was carried out on all the patients registered at the institute, with the complaint of hearing loss and/or symptoms associated with hearing loss. Patient load included children, adults and geriatrics from all walks of life. Routine audiological evaluation included pure-tone audiometry, speech audiometry and immittance evaluation. Measurement of auditory evoked potentials and oto-acoustic emissions was carried out whenever indicated. As with the previous years, a majority of the patients seen in the department were referred by old patients of the institute. Other referral sources included school teachers, health workers and social workers. Based on the audiological evaluation, handicap certificates were issued to 731 clients. Compared to the previous year, the number of individuals who have availed this facility have increased.



Baseline and monitoring audiograms were obtained from employees in various industries/organizations. Of the 142 employees evaluated, 8 were identified to have hearing loss. Detailed evaluation was also carried out for medico-legal patients and required certificates/reports were issued. The staff of the department have also served as expert witness in the court.

### **Hearing Aids**

Hearing aid trial was done for 3737 individuals. Of them, 2781 were prescribed hearing aids. When compared to the previous years, a large number of patients have requested for programmable and digital hearing aids. Also, there was a general down-trend in people wanting to go for assistive listening devices. A hearing aid and an assistive listening device were procured for the purpose of hearing aid trial.

2101 hearing aids received for distribution under the Aids and appliances scheme of the Ministry of Social Justice and Empowerment, Government of India, were tested and certified prior to distribution. Through the prevention of deafness project, 558 hearing aids were distributed to the hearing impaired. Counselling and hearing aid demonstration were carried out for the patients who have been issued or procured hearing aids. Focus has been given on the use of communication strategies for individuals with speech identification problems.

### **Earmolds**

During the year 2590 ear molds were made for 1368 patients. In addition, 17 earplugs were made to be used as "swimmers plugs" or as ear protective devices by industrial workers. The detailed statistics is given in Appendix.

### **Extension Activities**

Early identification is the key factor in providing success in any rehabilitation program. With this in mind, clinical services have been extended to outreach centers. This has enabled a larger number of individuals benefiting from the services of the department. Infants and children have benefited maximally from the extension activities. The extension activities were carried out for individuals of all ages, starting with the newborn infants and extending to the senior citizens.

Using the high-risk checklist, hand-held hearing screeners and calibrated noise-makers, 2516 infants were screened for hearing problems in the government maternity hospital and in immunization centers. Of them, 193 infants were referred

for further evaluation. Screening programmes were also conducted in collaboration with Family planning association of India in rural areas. Visits were made to schools to identify children with speech and hearing problems. Of the 1821 school children screening for hearing problems, 635 were referred for detailed evaluation at the institute. The services of an ENT specialist was made available during the extension activities carried out with Family planning association of India and at schools. This has resulted in a large number of individuals being treated for middle/external ear problems. These screening programmes served the dual purpose of education of the general public as well as identifying hearing problems. The staff of the department also participated in several camps, organized by Women and child welfare department and DPEP, where the hearing handicapped were identified and certificates were issued. These were in addition to camps organized by other agencies.

### **Free Hearing Check-up Camps**

The staff of the department participated in 38 speech and hearing camps, which were conducted in the following places:

- ♦ Hanur, Chamarajanagara, Hediya and Yelandur organized by the Women and Child Welfare Department (June 2001)
- ♦ Gundlupet and Gudalur organized by the Women and Child Welfare Department (July 2001)
- ♦ Sulthan Battery organized by the Rotary club of Sultan's Battery, Wynad Kalpetta, Wynad (August 2001)
- ♦ Nanjangud, Bettadapura, Periyapatna organized by the Women and Child Welfare department (October 2001)
- ♦ Calicut organized by the Calicut islamic cultural society, Calicut (October 2001)
- ♦ Chamarajanagar, Yelandur, Virajpet, Kollegal and Gundlupet organized by the DPEP, Chamarajanagar (November 2001)
- ♦ Hospet organized by the Rotary Club, Hospet (December 2001)
- ♦ Nagamangala organized by the Rotary Club, Somanathapura, Kasuvinahalli, Gavudagere, Koppa, Chamarajanagar, Hura, Saligrama, H.D.Kote, Chidarahalli, Kollegala and DRC, Mysore organized by the Department of Women & Child Welfare and Yelwala organized by the NSS, AIISH (January 2002)

- ❖ Matkere, Kittur, Rathnapuri organized by the Department of Women & Child Welfare, Malavalli, Mandya, Maddur organized by the DEPE and Koppala organized by the Women & Child Welfare, Koppala and NGO, Samaluru (February 2002)
- ❖ Deaf school, Tilak Nagar, Mysore organized by the Women and Child Welfare Department (March 2002)

## **RESEARCH**

### **Projects Under Progress**

#### **Fabrication of a Mobile Audiological Unit**

Audiological evaluation needs to be carried out in a sound treated room. However, in our outreach and extension service programmes, it is difficult to control the ambient noise and therefore, audiological testing becomes very difficult. In an effort to overcome this problem, a project was undertaken to build a mobile van, sound treated for audiological evaluation, with a grant of Rs 15 lakhs from the Government of Karnataka. The project was taken up in 1991 with NAL Bangalore who were to build the body of the bus with special FRP material which is supposed to provide good attenuation of sound. NAL completed the body-building of the bus and handed over the same to the institute in January 2001. Sound treatment of the different cubicles inside the bus is to be taken up. The mobile unit provides a 2-room set up for audiometry, a room for ABR and impedance testing and another room for hearing aid trial and fitment.

#### **Prevention of Deafness and Hearing Impairment**

This project was initiated in 1996-97. The activities of the project included women empowerment, infant hearing screening, screening of school-going children for hearing, hearing conservation of the industrial employees, hearing screening of elder citizens, orientation programs for allied professionals and public, and preparation and production of resource materials.

#### **Public Education Programme**

Three public education booklets and two handbills regarding prevention of hearing impairment that were prepared were processed for printing. These include the following:

- ❖ Prevention of hearing loss in expectant mothers





Maj. H.P.S. Ahluwalia, Chairman, Rehabilitation Council Of India , inaugurating the AIISH Canteen



Dr. J. P. Singh, Member Secretary, Rehabilitation Council of India Inaugurating the Workshop on "Prevention of Hearing Loss and Communication Disorders"





Maj. H.P.S. Ahluwalia, Chairman, RCI, addressing an interaction Program with the NGO's working in the Disability Areas in the districts of Mysore, Chamaraajanagar, Mandya.



Mrs. Ahluwalia is planting a sapling in front of the new AIISH Canteen, during the visit of Maj. H. P. S. Ahluwalia, Chairman, RCI (on wheel chair)





- ♦ Prevention of ear discharge
- ♦ Effects of traffic noise on hearing
- ♦ Signs and symptoms of hearing loss in school children
- ♦ Early identification of hearing loss in infants
- ♦ Public education pamphlets and posters were distributed in camps, extension services and during education tour.
- ♦ Video clippings regarding the ill effects of noise were screened in the cable networks in Mysore and Bangalore.
- ♦ Slides on prevention of hearing impairment were prepared and screened in theatres. This was done in both Mysore district as well as Mandya district.
- ♦ To increase awareness among school children, regarding prevention of hearing loss, a slogan writing competition was conducted for school children.
- ♦ Orientation lectures on prevention, identification and management of hearing impairment were given and the video films were screened to the following target groups:

Target group		Number
a) Headmasters and Headmistresses	—	315
b) Trainee nurses	—	189
d) Nursing trainees	—	26
e) CBR workers	—	22
f) TCH trainees	—	17
g) School teachers	—	554
h) Anganwadi workers	—	49
i) Hearing aid users	—	43
j) Physiotherapy trainees	—	14
k) Industrial workers	—	88



## Extension Services

Extension services were carried out to screen hearing of infants, school children, industrial workers and geriatrics. The following table indicates the number of individuals who were screened/evaluated, referred for detailed evaluation and rehabilitated under the project:

Activity	No. Screened/ Tested	No. referred to AIISH	No. of hearing aids issued	Certificates issued
Infant screening	2516	193	—	—
School screening	1821	635	—	—
Hearing conservation program	114	12	—	—
Camps	3437		328	474

The data obtained in the project is being analyzed to note the most appropriate test protocol for evaluating individuals of various age groups. The cost effectiveness and time-effectiveness of different test protocols has been established. The prevalence of different types of hearing impairment in school going children and industrial workers is being investigated.

### Preparation of Training Modules on Prevention of Deafness, Funded by WHO

Finalization of matter for five training modules has been carried out. These include the following :

- ❖ Training module for industrial employees
- ❖ Training module for the hearing impaired and/or the guardians of the hearing impaired
- ❖ Training module for nurses and medical professionals
- ❖ Training module for grass-root level workers
- ❖ Training module on basic sound generation

- ♦ Designing and printing of the training module for the nurses is in progress.

### Staff Activities

- ♦ Dr. Asha Yathiraj served as Vice-President, AIISH Gymkhana and Editor of ISHA Journal and guiding three Ph.D students.
- ♦ Dr. K. Rajalakshmi, Co-guide for a Ph.D program on " Digital Hearing aids and signal processing" for an electronics engineer from Goa.
- ♦ Dr. C. S. Vanaja served as a Member of selection committee at JSS Polytechnic College for the Physically Handicapped for the selection of candidates for diploma course.
- ♦ Mrs. P. Manjula served as a subject expert in the selection committee at DRC, Mysore.
- ♦ Mrs. Ramadevi Sreenivas served as resource person for the phone-in-program at AIR regarding speech and hearing problems in children.

### Workshops/Conferences/Symposium Attended

- Dr. Asha Yathiraj presented the following papers
  - "Overview and the Paediatric hearing-screening program of the POD screening project" in a workshop at AIISH in April 2001.
  - "Contributory factors in the integration of the hearing-impaired" at a National Level Meet on Aural-oral approaches as a preparation of inclusive education at AYJNIHH, Mumbai in November 2001.
  - 'Facilities for the hearing-impaired' in the workshop on "Development of Speech and Language Skills in Hearing-impaired Children" at AIISH in December 2001.
  - "Pre-requisites for learning intelligible speech" in the RCE-CRE program on Development of Intelligible Speech in December 2001.
  - "Auditory learning - A path to intelligible speech" in the RCE-CRE program on Development of Intelligible Speech in December 2001.
  - "Children with hearing impairment - Effective measures for integration in normal schools" at RIE, Mysore in January 2002.
  - "Recent advances in audiological evaluation" in a CME program for ENT Doctors in February 2002.

- "Pre-requisites for inclusive education of the hearing impaired" at Mysore in February 2002.
- "Levels of integration and tests to determine the level of support" in the workshop on Grouping of IEP techniques at AIISH in February 2002.
- 'Integration needed for each child in the workshop' in workshop on Grouping of IEP techniques at AIISH in February 2002.
- Dr. K. Rajalakshmi presented the following papers
  - 'Hearing screening program for geriatric and women' in a workshop at AIISH in April 2001.
  - 'Auditory learning' in a workshop on 'Development of Speech and Language Skills in Hearing-impaired Children' at AIISH in December 2002.
  - 'Role of hearing in speech and language development for the hearing-impaired' in the RCE-CRE program on Development of Intelligible Speech in December 2001.
- Mr. Animesh Barman presented the following papers:
  - Research activities of the POD project in a workshop at AIISH in July 2001.
  - Role of hearing, impact of hearing loss and need for early identification in the RCI-CRE program on Grouping of IEP techniques at AIISH in February 2002.
  - Co-authored the following papers presented at ISHA Conference 2002 at Delhi in February 2002:
    - Prasanna, E. and Animesh Barman. "Detectability of early cochlear damage using TEOAES".
    - Mukesh, T. and Animesh Barman. "Effect of repetition rate on click evoked acoustic reflex threshold in individuals with cochlear dysfunction".
    - Sandeep, M and Animesh Barman. "Effect of duration of correlation stimulation on suppression of TEOAES"



□ Dr. C.S. Vanaja presented the following papers:

- The primary prevention activities undertaken in the POD project in April 2001.
- Co-authored the following papers presented at ISHA Conference 2002 at Delhi in February 2002.
  - Srividya, B.A. and Vanaja, C.S. The time-intensity trading relationships in LLR in normals.
  - Siddarth, C.S. and Vanaja, C.S. Multi-component tympanometry in diagnosis of middle ear pathology.
  - Ajith Kumar, U. and Vanaja, C.S. Involvement of medial olivocochlear bundle in perception of speech in noise . This paper has also won the best paper award.

□ Mrs. P.Manjula presented the following papers:

- Hearing screening program for school going children and industrial workers at AIISH in July 2001.
- 'Devices for the hearing-impaired' in the workshop on Development of Speech and Language Skills in Hearing-impaired Children at AIISH in December 2001.
- 'Devices for the hearing-impaired' in the RCE-CRE program on Development of Intelligible Speech in December 2001.
- 'Devices for the hearing-impaired' in the RCE-CRE program on Grouping of IEP Techniques in February 2002.
- Setting up of classroom for the hearing impaired in the RCE-CRE program on Grouping of IEP Techniques in February 2002.

□ Mrs. K. R. Revathi presented the following paper:

- Checklist and measurement of hearing in school going children in the RCE-CRE program on Grouping of IEP Techniques in February 2002.

#### **Infrastructure Development :**

- ♦ Zodiac 901/P Impedence audiometer
- ♦ Portable two channel clinical audiometer Maico MA 53

- ❖ Clinical impedance audiometer AZ26
- ❖ Hearing aid Hansaton Starlite
- ❖ GSI Tymptstar impedance audiometer

### **Prevention of Deafness and Hearing Impairment, Ministry of Health and Family Welfare**

- ❖ Interacoustics mini tymp MT10
- ❖ Hearing aid TCI - Combi
- ❖ GSI 68 audiometers

## **PUBLICATIONS**

Yathiraj, A. (2001). Effects of hearing thresholds on comprehension and expression of children. *The Journal of Indian Speech and Hearing Association*, 15, 1-5.

Vanaja, C.S., & Sreevidya B.A. (2001). Variation in audiological test results over time in retrocochlear pathology - A case study. *The Journal of Indian Speech and Hearing Association*, 15, 6-11.

Shivaprasad M. Reddy., Krithika R. Iyengar., & Vanaja, C.S. (2001). Interaction effects of stimulus parameters on MMN - I. Frequency V/s Intensity. *The Journal of Indian Speech and Hearing Association*, 15, 12-15.

Shivaprasad M. Reddy., Krithika R. Iyengar., & Vanaja, C.S. (2001). Interaction effects stimulus parameters on MMN - II. Frequency V/s Rate. *The Journal of Indian Speech and Hearing Association*, 15, 16-20.

Manjula, P. & Jayaprakash, E. (2001). Noise and its effects. In M. Rajegowda (Ed.), *Parisara Jyothi*, Mysore: World Environmental Service Organisation @.

Yathiraj, A. (In press). Dichotic CV Test - Oral Vs Written Response. *Journal of Indian Speech and Hearing Association*.

Yathiraj, A., Sameer, P., & Jayaram, M. (In press). Infant hearing screening - A comparisons of different techniques. *Journal of Indian Speech and Hearing Association*.

- Ajith.U., & Barman, A. (2002). Effect of efferent -induced changes on acoustic reflex. *International Journal of Audiology*, 41,144-147.
- Komal.A., & Barman, A. (in press). Can SOAE be a tool to identify a person who is susceptible to NIHL? *Journal of Indian Speech and Hearing Association*.
- Manjula, P., Jayaprakash, E., & Jayaram, M. (In press). Hearing screening in school-going children. *Journal of Indian Speech and Hearing Association*.



# DEPARTMENT OF CLINICAL PSYCHOLOGY

The department of Clinical Psychology is primarily concerned with psychosocial aspects of communication disorders from perspectives viz., research, training and clinical practice.

## TEACHING AND TRAINING

The students posted to the department were trained in case history taking, testing and counselling under supervision of departmental staff. The students also received training in administering, scoring and analysis of various psychological tests like intelligence tests, personality tests and projective techniques. The students have also received training in behaviour modification, bio-feedback, assertiveness training, psycho-drama, group therapy, cognitive therapy, cognitive behaviour therapy, guidance and counselling for cases with communication disorders and their care takers.

### Ph.D Programme

The following thesis were in progress under the guidance of Dr. P. Kalaiah

Name of the candidate	Title of the Thesis
Mr. Venkateshaiah	Prowda shala SC/ST vidyarthigala buddishakthi, srujanasheelathe hagu shaikshanika sadaneya ondu adhyayana.
Mr. Jayaraju. R	Karnataka rajyada vivida karagruhagalalli iruva angavikala aparadhigala maanasika samasyegala ondu samagra adhyayana.
Mr. Jagadish	The impact of parental attitude on temperament, adjustment and social maturity in hearing handicapped children.

The following thesis was in progress under the guidance of Dr. Jyothi S. Madgaonkar, University of Mysore.

Mr. H H Raju: A Study of job satisfaction in relation to occupational stress and quality of life of employees in public and private sectors.

## CLINICAL SERVICES

The department has provided clinical services as shown below:

-----	
New cases	2907
Follow-up	388
Aphasia	29
Articulation disorders	210
Autistic disorder	23
Cerebral palsy	28
Functional dysphonia	41
Hearing Loss	688
Mental retardation	1013
Normal non-fluency	22
Specific learning disabilities	72
Speech & language disorders	402
Stuttering	417
Voice disorders	41
Others	309
-----	

### Therapeutic Services

Therapeutic services are routinely provided for cases with various types of communication disorders. Home based and clinic based remedial educational training programmes were provided for children with scholastic backwardness. Appropriate individual as well as family guidance and counselling were also carried out for these cases as and when necessary. Preadolescent and adolescent individuals with disabilities were given pre-vocational and vocational guidance after appropriate aptitude testing. Neuro-psychological retraining programmes including attentional retraining, memory training or allied cognitive training programme were dispensed for individuals with neuro-linguistic/communication problems. Individualized behavioural counselling, therapy and modification programmes were carried out in clinics as well as home setting for cases reporting behaviour problems. Skill training programmes on activities of daily living, functional academics, functional living skills, social or communicative skills were given for cases showing skills deficits behaviors. Details are given in the following table

Type of therapy	No. of cases	No. of sessions
Behaviour therapy	126	264
Behaviour modification	98	408
Home based training program for MR/SLD	326	382
Remedial training for SLD cases	123	243
Intensive parent counseling program	82	162
Neuropsychological re-training program	18	7
Vocational guidance	12	32
Total	785	1518

### Benefits and Concessions

All eligible and deserving cases were issued appropriate certificates stating the nature and extent of their disability. The various concessions and social economic benefits including certificates for financial assistance, travel concessions, income tax rebates, special school admissions, exemptions from second language study in school, L.I.C./U.T.I. schemes etc. Further, psychological reports were issued on request from professional peers, for academic and administrative purposes. Reports were provided for medico-legal cases and expert opinion was also provided during their court proceedings. Details are given in the following table.

M.R. certificates for financial assistance	518
Railway concessions for M.R.	108
Income tax rebate for parents of M.R.	54
Psychological reports for special school admissions	123
Certificate for language exemption for special children	76
LIC/UTI deposits for MR persons	64





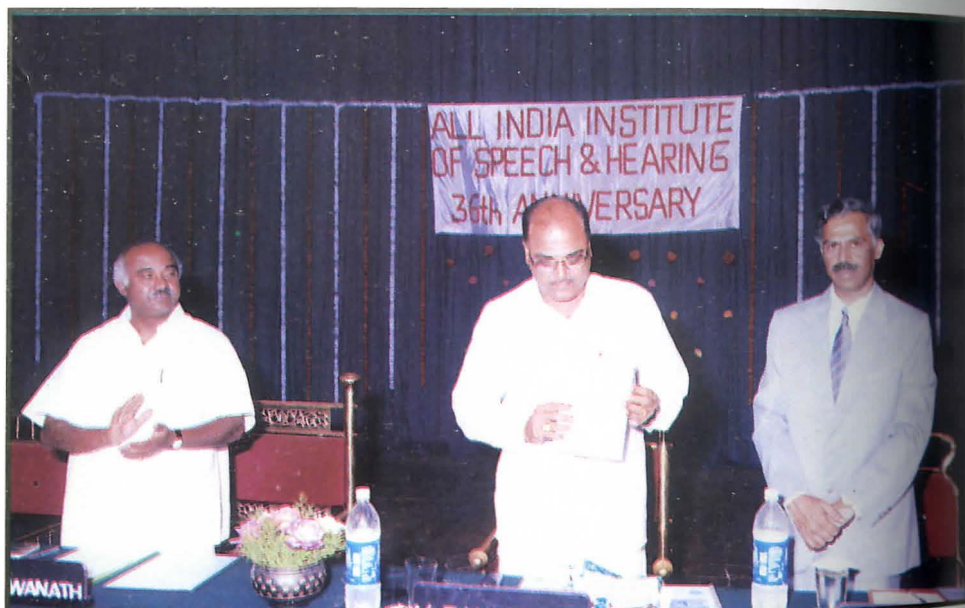
Dr. M. Jayaram, Director, AIISH accompanying Sri H. Vishwanath, Hon'ble Minister for Primary Education, Govt. of Karnataka and Sri B.K. Prakash, Mayor of Mysore, during the Celebration of 36th Institute Day Anniversary



Mr. H. Vishwanath, Hon'ble Minister for Primary Education is inaugurating the 36th Anniversary Celebrations of the Institute by lighting the lamp. Sri B.K. Prakash, the Worshipful Mayor of the City of Mysore is seen to the right of the Minister.



Sri H. Vishwanath, Hon'ble Minister for Primary Education, Govt. of Karnataka laid the foundation stone for AIISH Gymkhana Complex



Sri B. K. Prakash, Worshipful Mayor of Mysore, releasing Bye-Laws of the AIISH Gymkhana, on the occasion of the 36th Anniversary of the Institute



## RESEARCH

### Projects Under Progress

#### Development of Normative Data in the Pre-vocational Assessment of Communicatively Handicapped Persons

A prevocational assessment devise for assessment of communicatively handicapped persons is being developed and standardized. The completed scale is expected help and identified the job needs of adults with communication disorders by accommodating their work potentials, aptitude and interests.

#### Development and Standardization of Battery Tests in Assessment of Intelligence and Cognitive Disabilities in Communicatively Handicapped

Most of the intelligence tests used in the field of communication disorders require revalidation. This project has chosen various intelligence tests in contemporary use for their revalidation and upgradation of norms for regular clinical use and research applications.

## OTHERS

### Honors

Dr. S. Venkatesan was the recipient of the N.N. Sen award for the paper "Play activities in children with mental retardation" presented at the conference of Indian Association of Clinical Psychologists held at Sri Ramachandra Institute of Medical Sciences and Research Centre, Chennai organized by the Indian Association of Clinical Psychologists on January 2002.

### Staff Activities

#### ● Dr. S. Venkatesan

- ♦ Attended National Conference of Indian Association of Clinical Psychologists held at Sri Ramachandra Institute of Medical Sciences and Research Centre, Chennai organized by the Indian Association of Clinical Psychologists and presented a paper on "Play activities in children with mental retardation" in January 2002.
- ♦ Delivered a guest lecture on the topic entitled "Clinical Management of Autistic Children" at the Department of Speech Pathology and Audiology,



- Dr. G. Jayaram served as NSS Officer.

## PUBLICATIONS

Kalaiah P. (2001). "Disability - the Indian scene" in "Readings in Child Development". Prasaranga, Bangalore University, Bangalore.

Venkatesan S. (2001). Manual for Parental Attitude Scale towards Pre-school Education. Vedanta Publication, Lucknow.

Venkatesan S. (2001). Parent Opinions on Prevailing Practices in Preschool Education, Journal of Indian Education, 26, 4, 57-64.

# DEPARTMENT OF ELECTRONICS

During the year 2001-02, the Department of Electronics continued to pursue its objectives by (a) training undergraduates and postgraduates in basic electronics and acoustics, (b) repair & servicing of biomedical instruments, (c) calibration of diagnostic equipments, (d) human resources development, (e) hearing aid repairs & evaluation and (f) indigenous technology development.

## Major Achievements

- ♦ Establishment of Indigenous technology development center.
- ♦ The department got accredited as a National Apprentice Training Center by the Board of Apprenticeship Training (Ministry of HRD, Govt. of India).
- ♦ Development of AIISH website (<http://www.aiishmysore.org>) is completed.
- ♦ Project proposal for the development of FM hearing aid system with a budget estimate of 5.6 lakhs was accepted by the Ministry of Social Justice & Women empowerment, Govt. of India.

## TEACHING AND TRAINING

Basic electronics and acoustics were taught to the undergraduate and postgraduate students. The students were also trained on repairing of various types of hearing aids and calibration of equipments used in the field of speech and hearing.

### Short-term Training Programmes

Title	No. Conducted
Hearing aid repairs and servicing	7

### Apprentice Training

The department got accredited as a National Apprentice Training Center by the Board of Apprenticeship Training (Ministry of HRD, Govt. of India). Under this scheme, one graduate engineer in Electronics & Communication Engg, two diploma holders in Electronics Engg, and one diploma holder in Electrical Engg. would be trained as apprentices every year.

## Maintenance and Development of Services

### Electrical & Computer Maintenance

Department of Electronics is entrusted with the job of installation, maintenance, service, repair and calibration of all bio-medical instruments, computer systems and all electrical installations of the institute. The department is also responsible for the regular maintenance of LT power distribution in the campus and also managing and maintaining a network with 3 servers and about 100 nodes.

### Hearing Aid Repairs

Hearing aid repairs is another major activity in which both body level and BTE hearing aid repairs are done at a nominal cost. The following table shows the No. of hearing aids repaired in the department.

Type of Hearing Aid	No.
Body level hearing aids	597
Behind the ear hearing aids	68

### Telephones

The department is also managing and maintaining Siemen's Hi-com 150 EPABX system having 160 extensions with two digital lines, voice- mail facility and call billing software.

### Equipments Servicing

The department is also maintaining , servicing and calibrating all the bio-medical instruments. The following table shows the No. of instruments serviced in the department



## Nature of work

## Type of work

### Major

### Minor

Equipments serviced

152

61

Electrical works attended

192

34

External consultancy service

4

—

## Major works completed

- ♦ Installation, testing and commissioning of Local Area Network with 3 servers and 100 nodes.
- ♦ Street lighting work of AIISH campus.
- ♦ Conversion work of overhead electrical cables to underground electrical cables.

## Major ongoing works

- ♦ Electrification work of the multipurpose therapy clinic.
- ♦ Network cabling and telephone cabling work of AIISH quarters.
- ♦ Installation of new generator system with a total capacity of 200KVA with AMF panel & double bus bar system.

## Research

The department of Electronics has been identified by the Vishweshwaraiah Technological University (VTU) as a center for project work. Accordingly, one batch of students from each of the following institutions are doing their project work in the department.

- ♦ National Institute of Engineering, Mysore.
- ♦ SJCE College of Engineering, Mysore.
- ♦ Vidya Vikas Institute of Engineering & Technology, Mysore.
- ♦ Malanad College of Engineering, Hassan

## **Projects Under Progress**

### **Development of FM Hearing aid System**

A project entitled Development of FM hearing aid system with Dr. M. Jayaram, as Principal Investigator and Mr. Ajish K. Abraham and Mr. S.R. Srinivasan as Coinvestigator has been sanctioned by the S & T Mission Mode of the DRC of the Ministry of Social Justice & Empowerment, Government of India at a cost of Rs. 5.6 lakhs.

The objective of the project is to develop the technology for FM hearing aid system indigenously. Since FM systems are best suited for classroom teaching of hearing impaired children, the development of this technology can be widely used in these special schools. Preliminary studies have been done and the design of the transmitter part is under progress.

### **Development of Micro-controller Based Voice Light**

The project aims to develop indigenously the voice light, which gives visual indication for the production of sound. The micro controller based circuit will calculate the phonation duration and intensity produced in each frequency band. The micro controller based circuit has been developed and tested with simulated audio signals.

### **Development of S-indicator**

S-Indicator is an instrument which gives a visual indication for /S/ and /Sha/ sounds. The aim of the project is to develop indigenously this instrument so that it becomes affordable to all the speech therapy clinics in the country. The basic circuit has been developed, preliminary clinical trials have been done and the results are found to be satisfactory.

## DEPARTMENT OF ENT

The department of ENT is well equipped, specialized department of the institute concerned with the clinical services and rehabilitation services to patients with different types of communication disorders.

### TEACHING AND TRAINING

The pathology of speech and hearing disorders are taught to the B.Sc and M.Sc students by clinical demonstrations using various ENT instruments and operating microscope. The students are being exposed to clinical aspects of the diseases pertaining to speech and hearing.

### CLINICAL SERVICES

Various ear, nose and throat diseases are diagnosed using modern equipment like surgical microscope, endoscope and ENG etc. Minor procedure like suction clearance of ear discharge, removal of foreign bodies, removal of wax etc. was regularly conducted. The department of ENT, AIISH is running a separate unit (AIISH, ENT 'D' Unit) at K.R. Hospital attached to Mysore Medical College. Major operative, minor operative and emergency operations are done at K.R. Hospital. In-patient facilities are being provided at K.R. Hospital for patients of the AIISH, ENT unit.

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No. of cases seen at AIISH	20,232
No. of cases seen at K.R. Hospital	13,737
Major operation performed	251
Minor operation performed	99

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The major surgeries performed were mastoidectomy, tympanoplasty, and microlaryngeal surgery among others. Minor surgeries included, among others, myringotomy grommet, aural polypectomy, tongue tie release etc.



# RESEARCH

## Projects Under Progress

### Comparative Study of Operating Techniques in the Treatment of Otosclerosis (Small Fenestra Stapedectomy versus Stapedectomy)

The study aims at judging a better operating technique in the treatment of otosclerosis. The study involves collection of data of 50 cases of established otosclerosis who subject themselves to surgery. Since it is a bilateral lesion, two different treatment techniques will be performed on identical lesion in the same individual. The outcome would be to know the success rates of each technique. Data collections of 15 subjects are completed and further data collection is in progress.

### Comparison of Effect of Various Drugs in the Treatment of Tinnitus

The study aims at comparing the effects of various groups of drugs in alleviating the most distressing symptom of tinnitus without compromising the auditory ability. The study evaluates the tinnitus of 200 patients in the age group of 20-60 years with no organic pathology in the ear. A detailed audiological evaluation is done prior to the administration of drugs. The drugs intended to be used are Aminoglycosides, Peripheral vasodilators, Benzo diazepenes, Tricyclic anti depressants, Systemic vasodilators, Nicotin. A drug protocol is maintained after which the patient is subjected to audiological evaluation. The outcome of this study is to know the most effective drug which promises long term relief of the symptom without compromising auditory ability.

### Chemical Cauterization for Small Central Perforation

The aim of this study is to evaluate the patients who could be treated conservatively for perforations of tympanic membrane. Patients with small central perforations (perforation confined to one quadrant only) were evaluated for hearing prior and after the surgery. The procedure involves the use of silver nitrate for introduction myringoplasty. The outcome of this study helps in evaluating the size of the perforation, which would respond to introduction of myringoplasty.



A new tradition of AIISH to honour the retired employees of the Institute : Dr. M. V. Susheela, Professor & HOD, ENT is being honoured by Sri H. Vishwanath, Hon'ble Minister for Primary Education, Govt. of Karnataka on the occasion of Institute Day Celebration



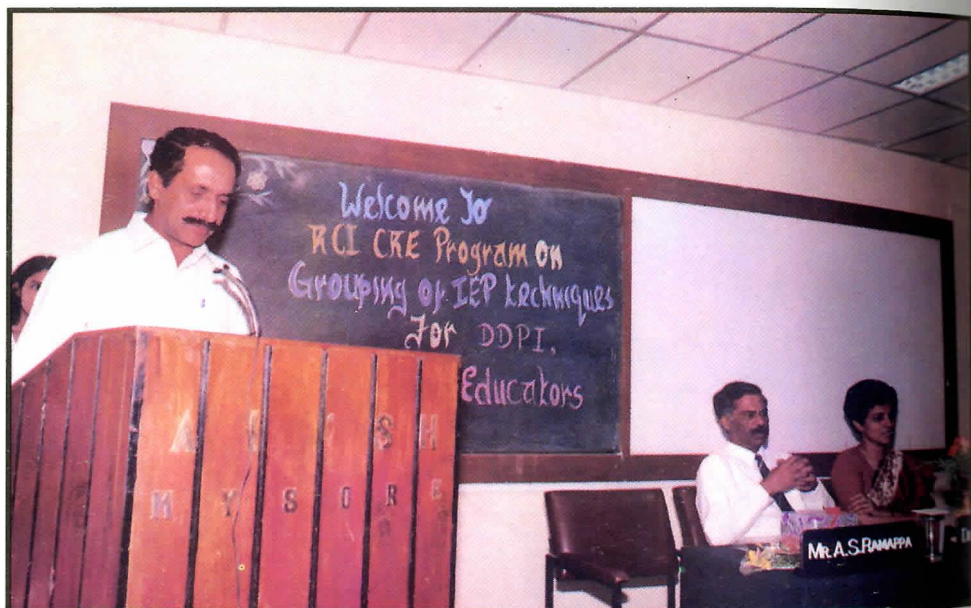
Colourfull Cultural Program by the Students of AIISH marked the celebration of 36th Anniversary of AIISH







A group of Children attending the Speech Therapy at AIISH gave Cultural Programme on the Occasion of the 36th Anniversary of The Institute



Mr.A.S.Ramappa, DDPI inaugurated the RCI-CRE Program on Grouping of IEP techniques for DDPI, heads of Schools and educators. The Orientation mainly aimed at role of hearing, prevention, identification and management of Speech & Hearing Problem and Class room acoustics.





# DEPARTMENT OF SPEECH PATHOLOGY

The Department of Speech Pathology is one of the major departments of the institute. During the period under report, the department continued to pursue its objectives by (a) training postgraduates and undergraduates in speech and language pathology, (b) providing diagnostic and therapeutic services to persons with speech, language and communication disorders, (c) carrying out research in identified areas of communication disorders and (d) conducting seminars, workshops, short term training programmes, public education programmes and developing resource material.

## TEACHING AND TRAINING

Academic training leading to B.Sc (Speech and Hearing) and M.Sc (Speech and Hearing) degrees continued in the year being reported. Students were trained in theoretical and applied aspects of various speech, language and communication disorders. Training in clinical skills was also provided.

### Ph.D Programme

The following thesis were in progress under the guidance of Dr. K. C. Shyamala

Name of the Candidate	Title of the Thesis
Satyapal Puri Goswami	Comprehension deficits in aphasics.
Swapna Sebastian	Comparison of language skills in normal children and children with language disability and learning disability.
Philomena Joseph	Writing deficits in hearing impaired (submitted)

### Dissertations

During the year 10 dissertations were completed and 8 dissertations were in progress under the supervision of the staff of the department. The titles are as follows

## Dissertations Submitted

Name of the Student	Title of the Dissertation
Beula Maria M.	Protocol for identification of Apraxia of Speech in Broca's aphasia
Harnesh Battacharjee	Phonological processes in developmental apraxia of speech - A case study
Kaveri Pant	Perception and production of emotive intonation in individuals with right hemisphere damage
Poornima M. N.	Applicability of Mayo clinic classification system in cerebral palsy
R. C. Perumal	Voice initiation and termination time in normal children and children with stuttering
Komal Arora	Acoustical, temporal and perceptual aspects of TGP and gastric speech
Barathy R.	Phonological process in 3-4 yr. old Tamil speaking children
Kamath Aruna Ganesha	Cognitive- linguistic assessment protocol (CLAP)
Chandralekha C.	Persevaration in geriatrics
Swaroop K.P.	Checklist for assessment of language based reading disabilities in children (Che-SLR)
Lakshmi Venkatesh	Phonological process characterization of articulatory errors in the speech of adults with spastic cerebral palsy.

## Dissertations in Progress

Name of the Student	Title of the Dissertation
Aditi Chakravarti	Autism spectrum disorders: A diagnostic scale for SLPs

Anna Shiam Kattapuram

Autistic spectrum disorders - A speech language pathologist's resource of intervention guidelines for language and communication disorders

Krupa Elizabeth Daniel

A study of code switching in neurologically normal and aphasics - Malayalam-English bilinguals

Gowri Krishna

Stress in Kannada words in narrative discourse mode

Kiruthika C

An investigation of speech motor planning abilities in Tamil speaking children

Mathew Andrews

Temporal characteristics in speech diadochokinesis of spastic cerebral palsied and normals

Mukunthan S.

Perseveration Broca's aphasia: A study on Tamil speakers

Prasanna Kumar E

Stability of speech articulatory errors from childhood to adult in cerebral palsy population.

Seetha L

Reading acquisition in Malayalam: A profile of secondary graders

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### Short-term Training

The following programmes were conducted during the year

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Title	No. conducted
Management of the mentally retarded children	1
Dyslexia	1
Misarticulation	1

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### CLINICAL SERVICES

Clinical services were provided to the cases with speech and language



disorders both in the diagnostic section and in the therapy clinic. Case history of 3,389 patients was taken in the diagnostics during the year. Speech evaluation was done for 3,350 cases with various types of communication disorders. The needy patients were sent to the therapy clinic for speech/language therapy.

The full-fledged therapy clinic under the department also pursued its objectives of (a) training student clinicians in rehabilitating children and adults with speech and language problems, (b) providing rehabilitation services to the needy, (c) providing public education services and (d) developing materials.

The department also runs a preschool for children with hearing impairment, mental retardation, cerebral palsy, learning disability, etc. The objective of this programme is to achieve successful integration in the school. The activities in the school were planned with specific curriculum framed for various communication disorders. Thirty children in the age group of 2 - 5 years were trained in the preschool during the year.

Patients with various types of communication disorders were given speech, language and communication therapy at the therapy clinic. A total of 3,557 cases attended 34,187 sessions of speech and language therapy.

For effective implementation of speech and language therapeutic services beyond the clinical set-up, itinerant services were provided. The itinerant speech therapist visited the schools wherein the children availing therapeutic services were integrated. The therapist oriented the teachers towards the scholastic problems of the children with communication disorders and also visited the work set-ups and homes wherever required. The statistics of clinical services is given in a nutshell (details in appendix).

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No. of case history taken in diagnostics	3,347
No. of patients evaluated for speech	
and language disorders	3,337
No. of patients given therapy	3,557
Total No. of therapy sessions	34,187

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Professional services of a visiting physiotherapist and plastic surgeon were made available to children and adults having sensory motor disorders with

associated speech-language problems and maxillofacial abnormalities. The prosthodontic technician under the guidance of a speech-language pathologist and plastic surgeon provided the following services in the year 2000-01:

Particulars	No. of Cases
Visiting dentist cases	122
Speech bulb prostheses cases	10
Cleft palate prostheses cases	10
Study model cleft palate	5
Study model speech bulb prostheses	5
Speech bulb prosthesis session taken	180
Cleft palate prosthesis sessions taken	98
Preparation of study model of speech bulb Cleft palate prosthesis	112
Mouth bite blocks prepared	10

## RESEARCH

### Projects under progress

#### Development of Intonation in Early Linguistic Stage

This project is funded by AIISH research fund and the investigator of this project is Dr. R. Manjula. This is a longitudinal study, which aims to investigate the developmental features of intonation in infants from 0.4 to 1.0 year. Fourteen children are included in the study. Speech samples of 30 minutes to one hour duration in various attitudinal contexts are recorded at least once in a week. The speech samples factored for context, age and group is being analyzed to extract the frequency and energy information related to intonation. Infants of parents speaking native languages of Kannada and Urdu are included in order to study the universal or differential trait in intonation if any.

## **Investigation of Reading Skills in Children with Reading Disability - Indian Perspective**

This project is funded by AIISH research fund. The investigators of this project are Dr. K. S. Prema and Dr. M. Jayaram. Reading is a complex skill that is presumed to be dependent on auditory, visual linguistic, cultural and educational factors. Studies on reading skill of good and poor readers suggest that certain demographic factors influence reading process. The present study aims to conduct ex-post-facto investigation of reading skills on relation on demographic factors. The study would facilitate on our understanding of reading from multilingualistic / multicultural perspective that is in existence in India.

### **Prevention of Communication Disorders**

The project prevention of deafness and hearing impairment was extended to speech pathology in the month of September 2001. The main purpose of the project was to work parallelly with POD, Dept. of Audiology, but with the additional objective of preventing speech and language disorders. Thus the main procedures adapted were to prevent the communication disorders at various levels like primary, secondary and tertiary prevention through infant screening, school screening, educating the public as well as the other professionals etc. The following are the activities carried out from Sept 2001-April 2002.

Posters of different disorders and their symptoms were prepared and displayed in the department during the open house at AIISH and in MANASA 2002 exhibition held in Manasagangothri on February 2002.

- ❖ Public Education: Information about communication disorders like cerebral palsy, aphasia, cleft palate etc., were compiled along with suitable pictures.
- ❖ Screening checklists have been prepared that would serve as quick reference for allied professionals such as Teachers, Nurses, Nursing Trainees and CDPO's.
- ❖ Booklet containing brief description on various speech and language disorders, symptoms their early identification and prevention has been prepared.

For the purpose of delivering lectures, slides in the form of transparency sheets, Power Point outputs have been prepared. These includes



- Introduction about AIISH and projects (POCD)
- General nature, causes, characteristics of various speech and language disorders.
- Identification and assessment of speech and language disorders.
- Role of nurses in prevention of communication disorders.
- Role of field functionaries in prevention and early management of speech and language disorders.
- Role of teachers in classroom research that would facilitate prevention of communication disorders.

### Orientation Programs

- In the month of November 2001, orientation programs for four groups of nursing trainees were carried out. The numbers of participants were around 200 in number along with the four instructors.
- Orientation program for CDPOs was carried out on December 2001. The group included child development project officers (CDPOs), ACDPO's and field officers.
- An orientation program on speech and hearing disorders was carried out for instructors and principles of nursing colleges on January 2002.
- One of the major activities of POD was infant screening. The main procedure in infant screening was through questionnaire method. The checklist was developed by POD was made use of. The mother caretaker was asked a series of questions including family history, consanguinity, prenatal history, perinatal history, and postnatal history. Along with these questions review of medical records and examination of reflex were also being carried out. If only the factors in these procedures are found positive then baby was considered as at risk for developing speech and language disorders. Once the baby was found at risk, then mother/caretaker was counseled for either evaluation from other professionals (e.g. Pediatrician, neurologist, otologist, AIISH, etc.). Besides watching for developmental milestones, the parents were also asked to come for a follow-up between 3-6 months. The summary of infant screening at K. R. Hospital and Mission Hospital are given below.

	KR Hospital	Mission Hospital
Total infants screened	587	224
Boys	365	139
Girls	222	85
Counseled for Follow up	104	19
Ref. To AIISH	14	9
Ref. To ENT	2	2
Ref. To Pediatrics	4	5

School children screening for communication disorders is another important activity being carried out as a part of POD program. This was done at various schools of Mysore along with the collaboration of Rotary West, Mysore. The target group was till higher primary school. The main procedure used was interview method. Each child interview was done for 1-2 minutes, and if the child is suspected of having any speech and language disorder then appropriate tests were administered. Along with the interview, the teacher's opinion about the child's speech and language skills were also considered. After the screening, the teachers were being delivered a brief lecture on various speech and language disorders, their characteristics and identifications. The teachers were asked to send the children to AIISH for further detailed evaluation. Totally 1682 children were screened for communication problems and 146 cases were referred for detailed evaluation at AIISH.

## OTHERS

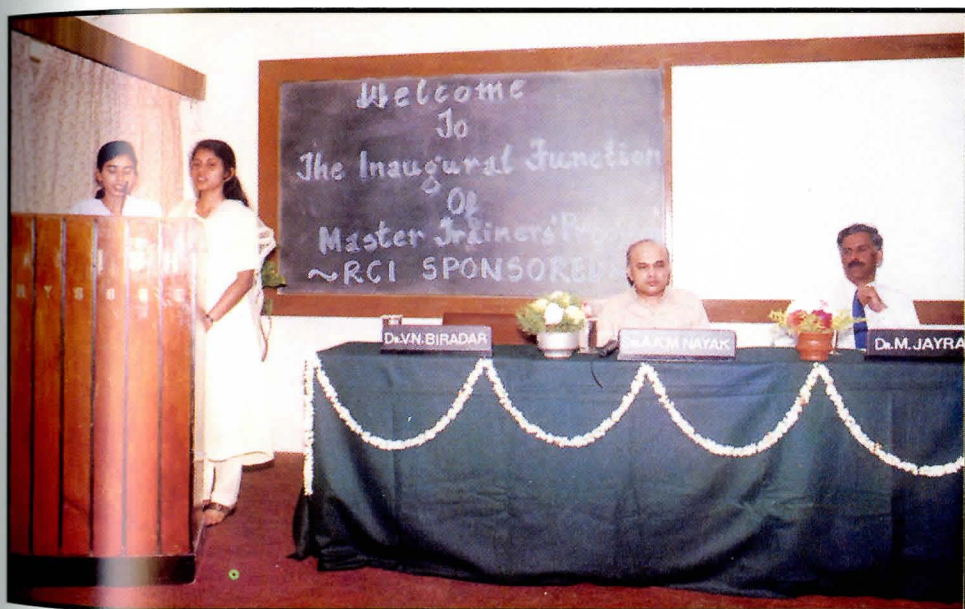
### Staff Activities

- ❖ Dr. Shyamala K. C. served as Coordinator – Clinics and was also Chief panelist for group discussion at CIIL, Mysore in the seminar on clinical linguistics.
- ❖ Dr. R. Manjula served as Coordinator of academic section from 24.6.01 and member of the selection committee for AIISH research fellowship.





Mr. A. K. M. Nayak, Principal Secretary, Ministry of Health and Family Welfare, Govt. of Karnataka, visited the Institute on November 2001 is being welcomed by the Director.

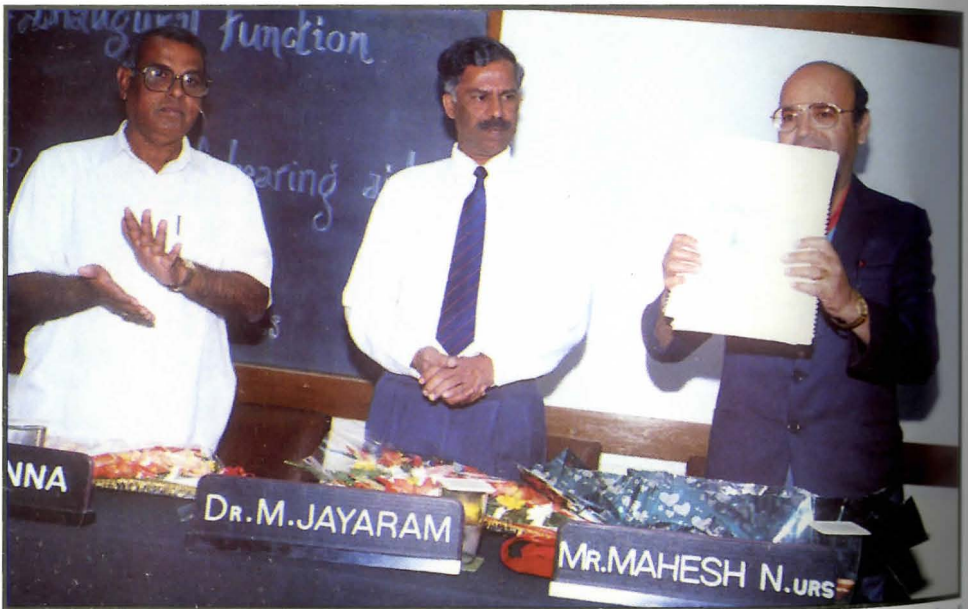


Mr. A. K. M. Nayak, Principal Secretary, Ministry of Health and Family Welfare, Govt. of Karnataka inaugurated the Master Training Programme of the RCI Programme on PHC Doctors Training





RCI - PHC DOCTORS TRAINING PROGRAM : Under this Program, doctors in all PHC's of all status are being trained in the identification, prevention and disability management in the four areas of deafness, visual impairment, mental retardation and locomotor disability. The photograph shows the group of PHC doctors who attended the training program



Mr. N. Mahesh Urs, President, Rotary West, Mysore releasing the course material on Repair of Body Level Hearing aid during the Workshop on December 2001.

- ♦ Mrs. Pushpavathi. M. served as Coordinator for AIISH research fund.
- ♦ Dr. K. S. Prema served as Academic coordinator (incharge of the academic section as academic coordinator was on leave)

### **Workshops / Seminars Conducted**

#### **Development of Speech and Language at Preschool Level for Hearing Impaired Children : December 2001**

The main objective of the CRE was to create awareness and orient the parents and educators of hearing impaired children regarding the development and management of speech, language and hearing skills. 30 special educators and parents attended the same. A group discussion was also held for the parents of hearing impaired children.

#### **Strategies at Primary School Level for Curricular Teaching to Children With Communication Disorders - Phase III: March 2002**

The main objectives of this program were to discuss the available strategies for teaching the various skills for children with communication disorders and to formulate and improvise standard and uniform curriculum for preschool children with communication disorders. 30 participants comprising of special educators, regular teachers, management personnel and speech and hearing professionals took part.

### **Orientation Program**

- "Home training and management of neurogenic speech disorders" for adults and care givers (December 2001).
- "Prevention of deafness and communication disorders" for CDPOs (February 2002).
- AAC orientation program arranged in collaboration with RCI-CRE, DWD & DRC at AIISH, Mysore.

### **Workshops/ Seminars / Conferences attended**

Dr. Shyamala K. C. presented the following papers :

- ♦ "Naming deficits in bilinguals" at the annual conference of association of CASLPA held at Toronto, Canada in May 2000.



- ❖ "Reading habit and directional scanning effect in picture naming" at TENNET conference, Montreal, Canada in June 2001.
- ❖ "Speech language pathology in multilingual context of India" at Ph.D and graduate center at city university of New York, U.S.A. in March 2001.
- ❖ "Language impairment in autism" at the seminar in Clinical linguistics at CIIL, Mysore in February 2002.

Dr. Prema K. S. presented the following papers :

- ❖ "Children with hearing impaired - remedial measures for academic issues" for training of masters trainers organized by DIET & RIE on January 2002.
- ❖ "Linguistic profiling - SLP's bliss?" in National seminar on Clinical Linguistics at CIIL, Mysore on February 2002.
- ❖ "Successful integration of the hearing impaired - language training techniques" in the RCI-CRE program on "Grouping of IEP techniques" on February 2002.
- ❖ "Language and communication: Definitions and components" in RCI-CRE collaborative program of Directorate for the welfare of disabled (DWD), Karnataka, DRC and AIISH on 'Orientation to AAC' on March 2002.

### Orientation lectures

#### Dr. K. C. Shyamala

- ❖ "Voice culture medical and non-medical ways for AIR personnel" in their workshop on presentation techniques (In Kannada) held at AIR Centre, Mysore on July 2001.

#### Dr. R. Manjula

- ❖ "Home management for adults and care takers with neurogenic speech disorders (Dysarthria)" at the workshop conducted by Dept of Speech Pathology. AIISH in December 2001.
- ❖ "Factors contributing to speech intelligibility in hearing impaired" at the RCI-continuing education program for educators on "Development of



intelligible speech" conducted by Dept. of Audiology, AIISH in December 2001.

- ♦ "Improving speech intelligibility in the hearing impaired" at the RCI-continuing education program for educators on "Development of intelligible speech" conducted by Dept. of Audiology, AIISH in December 2001.

**Dr. K. S. Prema**

- ♦ "Prevention of communication disorders" for Anganwadi workers on October 2001 held at AIISH.
- ♦ "Language training for children with hearing impairment" in the workshop for parents and preschool teachers on December 2001 held at AIISH.
- ♦ "Role of field functionaries in the prevention, early identification and management of communication disorders" for child development project officer on December 2001 held at AIISH.
- ♦ "Role of nurses in prevention and early identification of communication disorders" in a workshop on "Prevention of hearing impairment and communication disorders" for nursing trainer on January 2002 held at AIISH.
- ♦ "Language development and disorders in hearing impaired" in the workshop on "Development of speech and language skills in hearing impaired" for preschool teachers and parents at AIISH on December 2001.
- ♦ "Language characteristics in cerebral palsy, MR, Autism and PDD" in the AAC orientation program sponsored by RCI-CRE DWD and DRC at AIISH, Mysore on March 2001.
- ♦ "Speech and language development of hearing impaired" for DSERT teachers at RIE, Mysore on March 2002.
- ♦ Presentation of "The modifications in the curriculum" in the workshop on strategies at primary level for curricular teaching for children with communication disorders - phase III held at AIISH on March 2002.

## Infrastructure Development

The following equipment was procured in the department:

CSL 4400 (Computerized Speech Lab). - 1 No.

## PUBLICATIONS

Shyamala, K. C. (2001). Speech therapy and cerebral palsied child Indian context: On line Journal [www.languageinIndia](http://www.languageinIndia), March.

Shyamala, K.C. (2001). Speech correction in cerebral palsy online journal [www.languageinIndia](http://www.languageinIndia), April

Shyamala K.C. (2001). SLP in multilingual context in India. On line journal [www.languageinIndia](http://www.languageinIndia),

# DEPARTMENT OF SPEECH SCIENCES

The Department of Speech Sciences, since its inception in 1984, has been actively involved in clinical, academic, research and public education activities. Clients with complaints of voice, articulation and fluency are being evaluated, rehabilitated and provided counselling. Students of I and II year bachelor's course and first year master's course are trained to carry out various measurements, assessment and therapeutic techniques in the diagnosis and management of voice, articulation and fluency disorders. The department also undertakes research activities in areas pertaining to acoustics of speech, speech production, speech perception and verification tasks.

## TEACHING AND TRAINING

The faculty of the department were involved in teaching courses on (a) Part A of Introduction to speech, language and communication, (b) Part A of Anatomy, physiology and pathology of the speech and language mechanism, (c) Normal aspects of voice, articulation and fluency, and (d) Advanced course in the normal aspects of voice, articulation and fluency.

As a part of the practical training, undergraduate and postgraduate students were trained in case history taking, diagnostic, evaluative and assessment procedures for various speech disorders.

### Research

The following thesis are under the guidance of departmental staff:

Ms. N. Sreedevi: "Acoustic characteristics of vowels in Kannada"(submitted).

Ms. N. Swapna: "Fine-grained auditory discrimination in normal children and children with learning disabilities" (submitted).

Ms. M. Pushpavathi: "Language and speech motor interference in children with stuttering".

### Short-term Training Programmes

The following short term training programmes were conducted during the year 2001-02.



Title	No. conducted
Speech production	1
Instrumentation in speech sciences	2
Computer aided therapy techniques	1

Master's dissertations completed in the academic year 2000-01 under the supervision of departmental staff are as follows

Name of the Student	Title of the Dissertation
Anshula Shivanna Odekar	Perception of rhythm in music.
Arushi Chandra	Relationship between fundamental frequency of voice and adhara shruthi in carnatic vocal music.
Jayaradha S.	Coarticulation in the speech of profound pre-lingually hearing impaired and normal children.
Puranik Prachi Prakash	Syntactic abilities of speech of children with stuttering
Rashida Begum	Electroglottographic findings in the speech of stuttering and non-stuttering children
Sangeetha Mahesh	F0 transformation in the speech of hearing impaired.
Vasanthi A	Acoustic analysis of speech of cleft palate patients.
Vijay Kumar Guntupalli	Speech motor programming in adults with stuttering: before and after therapy.

The following dissertations were in progress in the academic year 2001-02

Name of the Student	Title of the Dissertation
Ananthi T.	Word stress: A pre-post therapy analysis in the speech of persons with stuttering
Neha Rawat	Acoustic data base for describing text
Pamela Samaddar	Reliability of voice prints

### Clinical Services

- ♦ Diagnostics: 670 patients were assessed and diagnosed for various problems of voice, articulation and fluency.
- ♦ Therapeutics: Supervision and counselling of 50 patients were carried out.

### Projects in Progress

#### □ Voicing Contrast in Indian Languages: Some Acoustic Measurements

The aim of the project is to investigate parameters of stop consonants contrasting voicing in 15 Indian languages: - Punjabi, Kashmiri, Assamese, Hindi, Tulu, Kodava, Malayalam, Marathi, Tamil, Gujarathi, Kannada, Telugu, Oriya, Rajasthani, and Bengali. Specifically seven acoustic parameters are measured to understand the voicing characteristics of these languages. Test material has been developed and audio recording of speech samples is completed. Acoustic analysis of the speech samples in 12 languages is completed. It is hoped that the result will help in the rehabilitation of the hearing impaired. The project is funded by AIISH Research fund.

#### □ Glottal Behaviour in Normals and Speech Disorders

The project aims at extracting the glottograms (Lx) in normals and in persons with voice disorders using Electrolottograph. Glottograms provide indirect information on the status of the vocal folds, which is helpful in the diagnosis of laryngeal pathologies. Till date laryngograph of 45 normals and 334 persons with voice disorders have been extracted. The database will help in diagnosis and differential diagnosis of laryngeal pathologies.

### ☐ **Differential Diagnosis of Stuttering and Normal Nonfluency**

The aim of the project is to evolve a protocol for differentially diagnosing stuttering and normal nonfluency. It is intended to extract acoustic parameters to make the protocol. Speech samples of 57 children with normal nonfluency and stuttering have been recorded for further acoustic analysis. The output will be clinically useful in differentiating children with stuttering and normal nonfluency.

### ☐ **Acoustic Analysis of Speech**

The aim of this project is to extract spectral and temporal parameters in the speech of Indian languages. In the current year, acoustic database in Hindi has been prepared. With this, words/sentences in male/female voice can be synthesized. The end product of the project will serve as a basis for text-to-speech and synthesis in various Indian languages. These will be helpful as aids for the nonverbal individuals.

### ☐ **Developing Software For Diagnosis of Speech Disorders**

The project aims at preparing data for software development for student training, and diagnosis of speech disorders. Currently a database of voice disorders has been prepared. This database comprises of voice samples of 150 persons with voice disorders. It can be used as a training material. Also, analysis of these samples will help in developing software for differential diagnosis of voice disorders.

### ☐ **Forensic Evaluation**

Spectrography or voiceprints are useful in speaker verification. The department is involved in speaker verification and has been developing methods for the same. In the current year, the reliability of voiceprints was assessed in Hindi speaking population. Under this, specifically the percent same/different to accept or reject two speakers as same/different was investigated. Also, a speaker verification task was carried out to help the Karnataka police. Speaker verification would be an additional proof for the court in deciding about the criminal.



### Honors

Dr S.R. Savithri was the recipient of the Sir C V Raman award for the paper "Acoustic analysis of laughter" published in the Journal of Acoustical Society of India.

### Workshops / Seminars Conducted

- Workshop on "Coarticulation in Indian Languages" was conducted in January 2002 at AIISH in collaboration with the Central Institute of Indian Languages, Mysore. A grant of Rs. 11,000/- was received from CIIL towards the workshop.
- Conducted 18 training programs under the RCI sponsored National Programme on Orientation of Medical Officers working at PHCs.

### Papers Presented at Workshops / Conferences

- Dr. Savithri S. R presented a paper titled "Labial coarticulation" at the workshop on Coarticulation in Indian Languages held at AIISH, Mysore in January 2002.
- Ms. Yeshoda, K presented a paper titled "Introduction to Coarticulation" at the workshop on Coarticulation in Indian languages held at AIISH, Mysore in January 2002.
- Ms. K. Yeshoda, Ms. Mili C Samuel and Ms. Chaya Devie N presented a paper titled "Role of LTAS in Infant Cry Analysis" at the ISHA conference held at New Delhi in February 2002.
- Ms. Rohini H presented a paper titled "Assessment of vocal fold regularity in normals" and "Transformation of the speech of the hearing impaired" at the 6th International workshop on Speech, Music and Allied Signal Processing held at New Delhi in December 2001.
- Mr. Santosh M presented a paper titled "Voicing contrast in Kannada and Malayalam" at the seminar on "Clinical Linguistics" at CIIL, Mysore in February 2002.

## PUBLICATIONS

- ❖ Rohini, H (2001). Assessment of vocal fold regularity in normals. Proceedings of the IWSMSP-2001. Acoustical Society of India ( Delhi & Kolkata Chapters ), Delhi, 65-73.
- ❖ Savithri S. R & Sreedevi, N. (2001). Transformation of VOT in the speech of the hearing impaired. Proceedings of the IWSMSP-2001. Acoustical Society of India ( Delhi & Kolkata Chapters ), Delhi, 94-101.



Parents of the Children attending AIISH being counselled by one of the clinical staff.



Out Reach Program of AIISH : Patients are waiting for their turn for speech & hearing evaluation at the camp organised by AIISH.







Screening procedure at one of the extension programs of AIISH



AIISH is being well known in mysore for the Greenary. A Panoramic View of the Gardens of the AIISH

# CENTRAL FACILITIES

## ACADEMICS

The primary objective of the institute is to train undergraduate, post-graduate and doctoral students in the field of Speech and Hearing to serve the speech and hearing handicapped in India. The student trainees are given training as per the course of study approved by the University of Mysore.

Periodical tests are conducted and the faculty gives assignments to the students. Annual examinations of B. Sc, M. Sc as well as supplementary for B. Sc are conducted as prescribed in the Manual of Conduct of Examinations issued by the University of Mysore.

### Undergraduate and Postgraduate Programs

#### (a) Admission Details

Total of 277 applications for B. Sc and 86 applications for M. Sc were received. Selection Committee Meetings were held on 9.7.2001 and 20.7.2001 for B. Sc and M. Sc respectively and admissions for I B. Sc and I M. Sc were made according to the rules and regulations of the University of Mysore. Entrance examination was held for admission to M. Sc (Speech & Hearing). The zone-wise distribution of students admitted is as follows:

	I B. Sc		I M. Sc	
	Male	Female	Male	Female
General merit	4	5	3	14
North Zone	1	4	-	-
East Zone	3	-	-	-
West Zone	1	3	-	-
South Zone	1	3	-	-
North East	1	1	-	-
SC	1	3	2	2
ST	1	1	1	-

Foreign	2	-	-	-
Inservice	-	-	1	2
Total	15	20	7	18

#### (b) Students Enrolled in the Course

B. Sc						M. Sc			
I year		II year		III year		I year		II year	
35		29		29		25		22	
M	F	M	F	M	F	M	F	M	F
13	22	09	20	07	22	07	18	7	15

#### (c) Annual Examination Results

	No. of Passes		Pass	Total pass percentage
	I Class	II Class		
III B.Sc	19	03	04	81.25%
II M.Sc	16	07	NIL	88.46%

#### (d) Merit Scholarships

Ten AIISH merit scholarships each were awarded to students of second and final year B.Sc & second year M. Sc. In addition, B. Sc. and M. Sc. students admitted in the academic year 2000-01, were paid a stipend of Rs. 400/- and Rs. 650/- per month, respectively.



### e) State-wise Distribution of Students

State	No. of students	
	I B. Sc	I M. Sc
Andhra Pradesh	2	2
Bihar	3	-
Assam	1	-
Foreign	2	1
Tamil Nadu	13	5
Uttar Pradesh	1	-
Karnataka	3	5
Kerala	1	6
Chhattisgarh	1	-
Maharashtra	3	-
Tripura	1	-
Punjab	1	-
Himachal Pradesh	1	-
Chandigarh	2	1
Delhi	-	2
Haryana	-	1
Jammu & Kashmir	-	1
Rajasthan	-	1

### f) No. of Courses Taught

Name of the Department	B. Sc			M. Sc	
	I	II	III	I	II
Audiology	2	2	3	2	2
Speech Pathology	1	1	3	1	2
Speech Science	2	1	*	1	*
Cli. Psychology	1	1	3	2	1
Electronics	1	*	*	*	1
Otorhinolaryngology	*	1	*	1	*

\* Not applicable

## g) Guest Lectures

Faculty from JSS Medical college and other specialists taught the subjects Paediatrics and Pathology to B.Sc students and Neurology to B.Sc and M.Sc students.

## Clinical Practicum

The students were posted to various departments. The number of hours of postings to different departments is as follows:

Name of the Department	B. Sc			M. Sc	
	I	II	III	I	II
(a) Diagnostics					
Audiology	35	60	70	70	80
Speech Pathology	17	30	70	35	80
Speech Sciences	17	30	*	35	*
Cli. Psychology	35	60	70	70	40
Electronics	35	*	*	*	40
Otorinolaryngology	*	60	*	60	*
(b) Therapy **	200	380	330	270	370

\* No postings.

\*\* For patients of all ages and various communication disorders such as hearing-impaired, delayed speech, misarticulation, voice disorders, stuttering, aphasia, learning disabilities etc.

## Awards

Ms. Anshula odekar, II M. Sc student received 'Abhilash Award' which is awarded to the best student clinician.

Ms. Lakshmi Venkatesh, II M. Sc student received Aarathi Venkataran gold medal for having secured highest marks in M. Sc and Manohar gold medal for having secured the highest marks in speech pathology (M. Sc) at the convocation.

## Doctoral Research

No. of candidates working for Ph.D (AIISH Staff)	4
No. of candidates working for Ph. D (JRF)	4
No. of candidates awarded Ph.D	1
No. of candidates who submitted thesis during the year	2

The following AIISH staff pursued their research programmes leading to

Ph.D

Name of the Candidate	Title of the Thesis
Ms. N. Sreedevi	Acoustic characteristics of vowels in Kannada (submitted)
Ms. N. Swapna	Fine-grained auditory discrimination in normal children and children with learning disability (submitted)
Ms. M. Pushpavathi	Language and speech motor interference in children with stuttering
Mr. S.P. Goswami	Comprehension deficits in aphasia

The following were awarded AIISH Junior Research Fellowships

Name of the Candidate	Title of the Research Proposal
Ms. Divya Menon	Speech evoked mismatch negativity: An objective measure of auditory perceptual deficits
Mr. Reddy Shivaprasad	MMN in sensory neural hearing loss - A clinical measure of speech perception
Ms. Sapna Bhat	Code mixing and code switching in bilingual aphasics
Ms. Kalaiselvi P.S.	Analysis of voice in Yakshagana folk artistis



## Ph. D Awarded

Mrs. C.S. Vanaja, Lecturer in Audiology, was awarded doctorate degree for her thesis entitled "Self assessment of hearing handicapped - A few audiological and non-audiological correlates" from the University of Mysore. She worked under the guidance of Dr. S. Nikam.

## New Training Programmes

The institute proposed and pursued a number of new academic programs during the year. The important among them was the proposal to bring in specialization at the master's level. Accordingly, the present M. Sc (Sp & Hg) which is a composite program is poised lead to two programmes: M. Sc (Speech-language Pathology) and M. Sc (Audiology). The proposal has received approval from the institute bodies and is awaiting approval from the University of Mysore and RCI.

## B. S. Ed (HI)

The second major proposal to come through was the introduction of a programme leading to Bachelor in Special Education (Hearing impairment). The 1-year course is for candidates who already have a Bachelor's degree in education (B. Ed). The proposal is in the process of receiving approval from the UOM and the RCI and we hope to implement the same from the academic year 2002-03.

## Diploma in Hearing Aid & Ear Mould Technology

Another proposal is to start a 1-year diploma for 10+2 students in Hearing Aid & Ear Mould Technology. The purpose of the course is to equip students in repairing hearing aids and making ear molds. It is hoped that students so trained will start their own centers so that the much needed services are available to hearing aid users nearer to their residence. The institute bodies have approved the course and the approval of RCI is awaited. The course would be started from 2002-03.

## Workshops/Seminars/Symposia Conducted

Name of the workshop	Date
Introduction of integrated semester scheme for B. Sc (Speech & Hearing) course	18.9.2001
Finalization of course content for Bachelor of	7.2.2002

## Special Education semester (Hearing Impairment)

The following short-term training programs were conducted at the institute

Topic	Total No. of Candidate
Ear mould making & earmould modification	29
Hearing aid repairs and servicing	07
Early identification of speech and hearing disorders	01
Evoked response auditory	22
Industrial training - Instrumentation	02
Industrial training - Different types of hearing aids	02
Management of the MR children	01
Learning disability	04
Computer aided therapy technique	02
TOTAL	70

### Results

The following students have secured ranks in B. Sc and M. Sc (Sp. & Hg.)

B. Sc ( Sp. & Hg.)	M. Sc (Sp. & Hg.)
Ms. Vani Rupela	Ms. Lakshmi Venkatesh
Ms. Savitha H	Ms. Anshula Shivanna Odekar
Ms. Mili Samuel	Mr. Vinay S. N
Ms. Chaya Devie N	Mr. Ajith Kumar
Ms. Delcy Janet	Ms. Beula Maria

# LIBRARY AND INFORMATION CENTRE

The significant event of this year is the construction of new AIISH Library and information center. The AIISH Library and Information Centre is a special documentation center for the rehabilitation professionals in general and speech and hearing professionals in particular. The objective of the center is to provide literature and other materials on the speciality of our curriculum to the students, researchers and students and also to specialists working in this field. The Library has a good collection of resource materials in different forms and on different areas like Speech pathology, Audiology, ENT, Neurology, Electronics and Biomedical instrumentation, Psychology and Linguistics.

AIISH has procured state-of-art Bar Code Generation software "Barcode Labellar", bar code scanner and data capturing instrument. This has lot of flexibility in usage with database. The entire collections are organized in systematic order and made available to the users easily. The book collection is being bar coded in order to facilitate quick transaction and generation of up-to-date and accurate circulation and inventory statistics. Bar code technology also enables stock verification of the library books in just 24 hours while this task used to take 30 days earlier. The center has been providing the following services

- ❖ Latest books and periodicals in the specialty areas of speech - language and hearing and their allied areas
- ❖ Bibliographic service
- ❖ Current Awareness service
- ❖ Inter Library Loan Service
- ❖ Reference service
- ❖ Reprographic service
- ❖ Providing literature search facility on topics of interest to its users
- ❖ Internet services/CD-ROM services, email services and OPAC services
- ❖ Bar code scanner and printer services

The book collection is being bar coded in order to facilitate quick transaction and generation of up-to-date and accurate circulation and inventory statistics. Computerizing the cataloguing of books, bibliography of journal articles is under progress.



AIISH Library has been enrolled as a member of the Mysore City Libraries Consortium and Mylibnet.

### Internet Services

All India Institute of Speech and Hearing commissioned a microwave link from the Software Technology Park of India, an organization under the Department of Electronics, Govt. of India. Presently the speed of the microwave link is 6 kbps. AIISH has procured state-of-art library management software "LIBRIS" from M/s Frontier Information Technologies Ltd., which is GUI based management software. This has user interface with road maps, enables the staff in library to easily understand the library operations. Online help is available for every option. It allows Internet mailing facility, stock verification, cataloguing of Multimedia files. LIBRIS is compatible with any backend using ODBC. This enables to store the data to any backend (eg. Oracle database). OPAC (open public access catalogue) of LIBRIS is web browser based thus making it easy for members to access library information from their personal computer on a LAN environment.

The AIISH Library has unique collection of books, compact discs and audiovisual material in the form of audiocassettes and slides related to speech and hearing and allied fields. In order to safeguard these, the library has Access Control System, by which the entry will be permitted only to the members having access control card. Using this facility, the entry of each member can be monitored.

### ANNUAL STATISTICS

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1. No. of volumes as on 31.3.2002	12456
2. No. of volumes added (from 1.4.2001 to 31.3.2002)	206
3. No. of journals subscribed	53
4. No. of books/journals issued and consulted (From 1.4.2001 to 31.3.2002)	65491
5. No. of outside members	49

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## ENGINEERING SECTION

The following civil works were carried out from 1.4.2001 to 31.3.2002

Particulars	Estimated Amount Rs.	Expenditure Rs.	Remarks
Construction of New Library & Information Centre	1,29,46,529.00	1,74,00,000.00	Completed
Construction of size stone masonry compound wall around the main campus			
Phase - I	15,60,000.00	12,84,740.00	Completed
Phase - II	2,83,000.00	2,24,820.00	Completed
Phase - III	15,50,000.00	10,46,246.00	Under progress
Construction of multipurpose vehicle garage	22,94,000.00	16,83,992.00	Completed
Maintenance of C & D type quarters	2,82,446.00	2,73,918.00	Completed
Construction of UGD pipe & manhole drainage system in the campus	11,55,000.00	11,72,954.00	Completed
Conversion of Car garage to Canteen	7,51,837.00	7,32,222.00	Completed
Construction of Generator Room	7,85,000.00	7,20,000.00	Completed
Construction of Multipurpose Sports Complex	10,009,707.00	46,84,188.00	Under progress

Particulars	Estimated Amount Rs.	Expenditure Rs.	Remarks
Construction of Therapy Clinic	3,23,00,000.00	11,00,000.00	Under progress
Construction of Security cabins at Guest house and Ladies hostel	2,40,000.00	2,40,000.00	Completed
Construction of Security cabin at main gate	1,71,000.00	—	Under progress
Drilling of Bore well near therapy clinic	80,000.00	41,000.00	Completed
Widening of road leading to therapy clinic from main gate	2,21,000.00	—	Under progress
Repair of solar system at Ladies and Gents hostel buildings	58,600.00	58,600.00	Completed
Sign boards at New Libray & guest house	20,700.00	20,700.00	Completed
Renovation of toilets at main office	2,15,000.00	2,05,000.00	Completed
Miscellaneous work such as approach rampls	42,000.00	42,000.00	Completed
Change of 2" GI Pipe line from New bore well (North) to sump tank	97,000.00	94,688.00	Completed
Two wheeler parking platform near Library	40,000.00	39,000.00	Completed



# THERAPY CLINIC

The therapy clinic deals with imparting practical training in the therapeutic management of patients with speech, hearing and language disorders for the undergraduate and post-graduate students under the supervision of clinic and faculty staff.

The therapy clinic pursued its objectives of

- ❖ Training student clinicians in rehabilitating children and adults with speech and language problems
- ❖ Providing rehabilitation services to the needy clinical population
- ❖ Providing public education services and
- ❖ Developing training materials.

## TEACHING AND TRAINING

Mrs. Swapna submitted Ph.D thesis on "Fine-grained Auditory Discrimination in Normal Children and Children with Learning Disability" to the University of Mysore during February 2002 under the guidance of Dr. S.R. Savithri, Reader & HOD I/c, Department of Speech Sciences.

## CLINICAL SERVICES

The therapy clinic also runs a preschool for children with hearing impairment, mental retardation, cerebral palsy, learning disability etc. The objective of this program is to achieve successful integration in the school. The activities in the school were planned with specific curriculum framed for various communication disorders. Thirty children in the age group of 2-5 years were trained in the preschool during the year. Patients with various types of communication disorders were given speech, language and communication therapy at the therapy clinic. A total of 3557 cases attended 34187 sessions of speech and language therapy. Demonstration therapy was given to 456 cases and home training was advised to 323 patients.

For effective implementation of speech and language therapeutic services beyond the clinical set-up, itinerant services were provided. The itinerant speech therapist visited the schools wherein the children availing therapeutic services were integrated. The therapist oriented the teachers towards the scholastic problems of the children with communication disorders and also visited the work set-ups and homes wherever required. A total of 107 cases received physiotherapy

services from visiting physiotherapist once in a week.

The following table shows the statistics regarding the group therapy in various languages and in different disorders.

### Hearing Loss Group

#### Malayalam Language Group

Group 1 ( 2 - 3 years)	—	43 sessions
Group 2 ( 3 - 4 years)	—	44 sessions
Group 3 ( 3 - 5 years)	—	33 sessions

#### Kannada Language Group

Group 1 ( 3 - 5 years)	—	47 sessions
Group 2 ( 5 - 10 years)	—	45 sessions
Group 3 ( 4- 7 years )	—	36 sessions

#### Learning Disability Group

Kannada Language	—	56 sessions
English Language	—	55 sessions

#### Apraxia Group

Kannada Language	—	27 sessions
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## RESEARCH

### Projects under Progress

#### Associated Problems as a Basis for Subgrouping Disfluent Children

This project is funded by AIISH research fund and the investigators of this project are Dr. Y. V. Geetha and Dr. M. Jayaram. The project aims at classification or subgrouping disfluent population based on a battery of tests covering language (comprehension, expression, reading and writing), articulation, phonological aspects, apraxia and audiological tests. 30 children and 30 adults are tested and the results are compared across. Discriminant analysis will be used to subgroup the children and adults based on the parameter selected. The results will have implication in the assessment and management of disfluent population.

## OTHERS

- ❖ Group song, solo song, mass drill, speech and fancy dress were held on account of Independence day.
- ❖ Open house was arranged on account of International Day of the Disabled.
- ❖ Drawing, painting, orientation and video show was arranged on account of autistic week celebration.
- ❖ Drill, speech and song was arranged on account of Republic Day.
- ❖ Celebrated World Disabled Day by conducting various sports competitions for the speech and hearing handicapped attending the speech therapy mimicry show and talk on welfare measures followed by prize distribution.
- ❖ Dance drama and dance were performed by children attending therapy at the institute anniversary day celebrations.

### Public Education Activities

Therapy clinic participated in the 'Manasa' exhibition organized by the University of Mysore in the month of January 2002. Public education pamphlets and models of ear, larynx, brain etc., were displayed regarding the causes and management of communication disorders. Visitors to the exhibition were oriented on the causes and management of communication disorders.

### Workshops / Conferences Conducted

- ❖ Workshop on Development of Speech and Language Skills in Hearing Impaired Children was conducted in December 2001.
- ❖ Strategies at Primary Level for Curricular Teaching to Children with Communication Disorders - Phase III was conducted in March 2002.

### Papers presented

- Dr. Y.V. Geetha presented a paper titled "Management of Speech Problems in the Hearing Impaired" at the workshop on Development of Speech and Language Skills in Hearing Impaired Children held at AIISH, Mysore in December 2001 and "Language characteristics of deaf and deaf-blind" at the orientation program on AAC held at AIISH, Mysore in March 2002.



□ Mrs. Swapna N presented the following papers

- "Educational & Vocational Management of Children with Hearing Impairment" at the Workshop on Development of Speech and Language Skills held at AIISH, Mysore in December 2001.
- "Preschool Special Education for the Hearing Impaired" at the RCI-CRE Workshop on Grouping of IEP Techniques held at AIISH, Mysore in February 2002.
- "Preschool Curriculum for Children with Communication Disorders - An Overview" in the Workshop on "Strategies at Primary School Level for Curricular Teaching to Children with Communication Disorders" held at AIISH, Mysore in March, 2002.
- "Stages in Development of Language and Communication" in the Workshop CRCI - CRE program (collaborated by DRC, DWD and AIISH) on "Orientation to AAC" held at AIISH, Mysore in March, 2002.

#### **Material Development**

- ♦ Seven home training programs were translated into four different languages for different disorders.
- ♦ Curriculum for preschool children with communication disorders is completed.
- ♦ Booklets and charts to teach various language concepts, prelinguistic skills and articulation was developed.
- ♦ Electronic articulation posture display to provide visual feedback.
- ♦ Articulation therapy manual (5 audio cassettes), auditory training material (English and Malayalam) was developed.
- ♦ Charts were developed for public education.
- ♦ Booklets to teach word segmentation and blending for children with learning disability.
- ♦ Flash cards were prepared to teach various concepts.
- ♦ 17 materials to teach speech and language, reading, writing, articulating skills was developed as a part of I B.Sc and I M.Sc assignments
- ♦ Device like See-scape was developed for blowing exercises.

## OTHER ACTIVITIES

### STUDENTS OF AIISH

The year 2001-02 was an active year for the students of AIISH. They participated in a variety of programmes pertaining to academic, cultural, sports, clinical and social service activities.

#### Extra Curricular Activities

Under the banner of AIISH Gymkhana, the students participated in a host of academic, cultural, sports and social service activities. The artistic talents of the students found expression in the cultural activities on the occasion of Institute Day as well as major festivals. They also excelled in sports and games. The NSS volunteers carried out activities related to environment, culture, sports, sanitation, blood donation etc. The students also participated in a number of camps conducted by the institute as well as NSS. They were actively involved in the two year longitudinal health project launched by NSS for identifying people with speech and hearing problems and mental retardation in 7 villages of Mysore.

#### Conferences Attended

A number of students participated in the Indian Speech and Hearing Association Conference, New Delhi in February 2002.

#### Papers Presented

The following students presented the scientific papers at the Indian Speech and Hearing Conference held at New Delhi, 2002.

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Name of the Student	Title of the Paper
Mr. Prasanna Kumar Emani	Detectability of early cochlear damage using TEOAE
Ms. Mrudula Damle	Paraphasias in multilingual aphasics - a single case study of Wernicke's aphasia.
Mr. Sandeep M	Effect of duration of contralateral acoustic stimulation on suppression of TEOAE.

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Name of the Student

Title of the Paper

Mr. Kripal Singh

LAPSA : Linguistic based assessment protocol for subcortical aphasia.

Ms. Mili C. Samuel &  
Ms. Chaya Devie N

LTAS - A diagnostic tool in infant cry analysis

Mr. Siddhartha C.S

Multicomponent tympanometry in diagnosis of middle ear disorders.

Mr. Mukesh Tyagi,

Relation between transient evoked otoacoustic emissions and difference limens for frequency in normal.

Mr. Mukesh, Tyagi

Effect of repetition rate on click evoked acoustic reflex threshold in individuals with cochlear dysfunction.

Ms. Srividya B.A.

The time-intensity trading relationships in LLR in normals.

#### Awards

The following students brought accolades to the institute in the form of Best Paper Awards received at Indian Speech and Hearing Association Conference held at Delhi in February 2002.

Ms. Banumathy, III B. Sc student won the young scientist award for the paper "Clinical considerations in developmental apraxia of speech".

Ms. Srividya B.A, II M. Sc student won the Best paper award for her paper entitled "Script based intervention for reading disability - Speech language pathologist's role".

Ms. Neha Rawath, II M. Sc student won the Mukthesh award for the paper "Perception and production of phonemes by dysarthric clients".

Ms. Anshula Odekar won the Abhilasha Award, for being the best student clinician of AIISH.



# OFFICIAL LANGUAGE IMPLEMENTATION

The programmes scheduled for the year 2001-02 were carried out.

## Official Language Implementation Committee Meetings

- ❖ OLI Committee meeting held on 6.8.2001 and 7.1.2002
- ❖ The Institute participated in the TOLIC meetings held on 29.10.2001.

## Training in Hindi / Hindi Typing and Incentive Schemes

Implementation of schemes of incentives for successful completion of Hindi / Hindi typing examination and implementation of official language continued.

The following is the number of staff sponsored / appeared for Hindi examinations in May and November 1999.

Exam	May 2001 Appeared	Passed	Nov. 2001 Appeared	Passed
Prabodh	02	-	02	-
Praveen	05	-	01	-
Pragya	03	01	01	01

## Official Language Correspondence

The provision of Clause 3(3) of Official Language Act, 1963 were complied with to the best possible extent. Annual Reports, Audited statement of accounts, Performance Budget, Forms, General orders, Word a day in Hindi were all rendered in Hindi along with English.

Hindi week was conducted during September 2001. Various activities including Hindi competitions were stretched through out the week.

## Hindi Workshop / Conference

Smt. H.P. Uma Saraswathi, Hindi Translator was deputed to attend the Southern Regional Official Language Conference at Bangalore on February 2002.

### **Hindi Books / Magazines**

Hindi books on various subjects and dictionaries worth Rs. 1058/- were purchased during the year. Library of Hindi books was kept open for use by staff and students throughout the year.

### **Use of Hindi on Computer**

Leap office software was used on various computers.

Smt. H.P. Uma Saraswathi, Hindi Translator and Smt. R. Shanthi, Hindi cum English Typist were deputed to attend a five day training programme on "Basic Knowledge of Hindi on Computers" organized by the Ministry of Home Affairs at CMC, Bangalore on October 2001.

A total of 2825 Hindi speaking patients have visited the institute for clinical services in respect of speech and hearing disorders, out of which 136 were given Speech therapy.

## APPENDIX - 1 (I)

### CLINICAL SERVICES

#### No. of Cases Registered at the Institute

1. New cases	12,830
2. Repeat cases	15,175
3. Total No. of cases	28,005
4. No. of working days	244

#### Agewise Statistics of New Patients

Age group	Male	Female	Total
00 - 05	1270	750	2020
05 - 10	1050	735	1785
10 - 20	1450	1360	2810
20 - 40	2040	1400	3440
40 - 60	875	750	1625
60 - 80	550	200	750
80 +	275	125	400
Total	7510	5320	12830

#### State-wise Distribution of Cases Registered During the Year

State	No. of cases seen
Karnataka	10500
Kerala	1500
Tamilnadu	575
Andhra Pradesh	238



Uttar Pradesh	8
Maharashtra	4
Madhya Pradesh	5

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Total	12830
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## APPENDIX - 1 (II)

### HEARING EVALUATION

No. of patients evaluated for hearing problems	:	15713
No. of patients seen for hearing evaluation at AIISH	:	7939
No. of patients seen for hearing evaluation/ screening at extension centers	:	4337
No. of patients seen for hearing evaluation at camps	:	3437
No. of ears with -		
a) normal hearing	:	3140
b) conductive hearing loss	:	2527
c) mixed hearing loss	:	2917
d) sensorineural hearing loss	:	4050
No. of certificates issued		731
a) financial aid	:	534
b) admission to normal school	:	44
c) physically handicapped	:	50
d) tax exemption	:	24
e) others	:	129
f) education scholarship	:	3
No. of audiogram copies issued	:	1813
No. of patients seen for hearing aid trial	:	4459
No. of patients counseled	:	1347
No. of cases recommended		
a) Auditory training	:	1644
b) Speech reading	:	850
No. of hearing aids issued under ADIP scheme		
a) Issued free of cost	:	129
b) Issued at 50% of cost	:	NIL
No. of hearing aids issued on exchange	:	14
No. of hearing aids certified	:	714

## APPENDIX -1 (III)

### EARMOLDS

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No. of patients seen	:	1368
No. of earmolds completed	:	2590
No. of earmolds issued on		
a) 50% payment	:	1471
b) 100% payment	:	968
No. of special earmolds made	:	351

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# APPENDIX - 1 (IV)

## AGE-WISE STATISTICS OF PATIENTS

### HEARING EVALUATION, HEARING AID TRIAL AND EARMOLD SECTIONS

Age Group	Hearing Evaluation		Hearing aid Trial		Ear molds		HAT counseling	
	M	F	M	F	M	F	M	F
0-1	55	58	38	33	19	11	19	10
2-5	544	374	284	259	195	135	153	92
6-10	403	399	216	176	149	124	79	58
11-15	329	246	161	72	106	52	35	27
16-20	316	275	110	73	36	23	31	21
21-25	415	170	60	27	19	11	30	10
26-30	302	226	64	30	15	5	27	12
31-35	293	161	42	34	18	9	17	18
36-40	312	152	61	29	22	7	17	12
41-45	255	152	59	28	18	14	19	21
46-50	263	163	74	58	22	17	30	18
51-55	215	127	70	58	32	10	34	16
56-60	228	160	102	74	33	20	55	35
61-65	257	134	125	52	45	11	77	18
66-70	215	138	153	61	57	12	90	26
71-75	205	77	150	52	45	18	86	20
76-80	126	46	104	21	27	5	63	7
81-85	78	24	44	16	20	6	33	11
86-90	30	12	29	7	00	0	13	3
91-95	4	0	4	0	00	0	1	1
96-100	0	0	2	0	00	0	2	0
1	4845	3094	1952	1160	878	490	911	436
Total	7939		3112		1368		1347	

## APPENDIX - 1 (V)

### SPEECH AND LANGUAGE DISORDERS AGEWISE DISTRIBUTION

Age in years	Male	Female	Total
<1	32	10	42
1-5	669	407	1076
5-10	609	375	984
10-15	334	155	499
15-20	180	75	255
20-25	121	25	146
25-30	56	26	82
30-35	36	21	57
35-40	40	15	55
40-45	36	15	51
45-50	14	8	22
50-55	12	6	18
55-60	18	7	25
60-65	8	2	10
65-75	10	1	11
75-85	3	1	4
85-95	0	0	0
Total	2188	1149	3337

# APPENDIX - 1 (VI)

## DISTRIBUTION OF CASES WITH SPEECH AND LANGUAGE DISORDERS

	Case Evaluation	Speech Evaluation	Counseling
I. Language disorders			
1. Delayed speech and language (DSL)	338	337	216
2. DSL with M.R.	512	512	251
3. DSL with C.P.	189	188	117
4. DSL with autism	30	30	21
5. Aphasia	22	22	14
6. Speech regression	19	19	6
7. Learning disability	56	56	39
8. Slow learner	7	7	5
II. DSL with hearing loss	1140	1137	327
III. Hearing loss	3	0	0
IV. Rhythm disorders			
1. Stuttering	4	407	291
2. Cluttering	0	0	0
3. Normal non-fluency	25	25	24
V. Articulatory disorders			
1. Misarticulation	198	200	117
2. Cleft palate	55	55	23
3. Dysarthria	27	27	12
VI. Voice disorders			
1. Dysphonia	311	311	152
2. Laryngectomy	3	0	2
VII. Miscellaneous	3	0	1
Total	3349	3337	1618



## APPENDIX - 2

### COMMITTEES OF THE INSTITUTE

#### Executive Council

1. Dr. C. P. Thakur  
Hon'ble Minister for  
Health and Family Welfare  
Government of India  
Nirman Bhavan  
NEW DELHI - 110 011  
Chairman
2. Dr. A.B. Malaka Reddy  
Hon'ble Minister for  
Health and Family Welfare  
Government of Karnataka  
Vidhana Soudha  
BANGALORE - 560 001  
Vice-Chairman
3. Sri S. K. Nayak, I.A.S.  
Secretary to the  
Government of India  
Ministry of Health and Family Welfare  
Nirman Bhavan  
NEW DELHI - 110 011  
Member
4. Dr. S.P. Agarwal  
Director General of Health Services  
Government of India  
Nirman Bhavan  
NEW DELHI - 110 011
5. Sri J.V.R. Prasada Rao  
Additional Secretary (Health)  
Ministry of Health and Family Welfare  
Government of India  
Nirman Bhavan  
NEW DELHI - 110 011  
Member

6. Sri Rakesh Bihari, I.A.S.  
Joint Secretary (FA)  
Ministry of Health and Family Welfare  
Government of India  
Nirman Bhavan  
NEW DELHI - 110 011  
Member
7. Sri Rajwant Sandhu  
Joint Secretary to  
Government of India  
Ministry of Social Justice & Empowerment  
Shastri Bhavan  
NEW DELHI - 110 001  
Member
8. Smt. Bhavani Thyagarajan, I.A.S.  
Joint Secretary  
Government of India  
Ministry of Health and Family Welfare  
Shastri Bhavan  
NEW DELHI - 110 001  
Member
9. Sri A. K.M.Nayak, I.A.S.  
Principal Secretary to the  
Government of Karnataka  
Department of Health and Family Welfare  
Multistoreyed Building  
BANGALORE - 560 001  
Member
10. Dr. R. Seethalakshmi  
Director of Medical Education  
Government of Karnataka  
Ananda Rao Circle  
BANGALORE - 560 009  
Member
11. Dr. S.N. Hegde  
Vice-Chancellor  
University of Mysore  
Crawford Hall  
MYSORE - 570 005  
Member

12-14 Three nominees of Chairman  
Executive Council

Member

Dr. S. Gopalakrishnan  
Professor and Head  
Department of ENT  
JIPMER  
PONDICHERRY - 605 006

Sri I. Kandaswamy  
Professor of Radiology  
Madras Medical College and Research Institute  
CHENNAI

Dr. Ravi Ramalingam  
Consulting ENT, Head and Neck Surgeon  
Joint Managing Director  
K.K.R. Hospital and Research Institute  
827, Poonamalle High Road  
Kilpauk, CHENNAI - 600 010

15. Nominee of the Director, AIISH, Mysore

Member

16. Dr. M. Jayaram

Director  
All India Institute of Speech and Hearing  
MYSORE - 570 006

Member Secretary



## Finance Committee

1. Sri J.V.R. Prasada Rao, I.A.S.  
Additional Secretary (Health)  
Ministry of Health and Family Welfare  
Government of India  
Nirman Bhavan  
NEW DELHI - 110 011  
Chairman
2. Dr. S.P. Agarwal  
or his nominee  
Director General of Health Services  
Government of India  
Nirman Bhavan  
NEW DELHI - 110 011  
Member
3. Sri Rakesh Behari, I.A.S.  
Joint Secretary (FA)  
Ministry of Health and Family Welfare  
Government of India  
Nirman Bhavan  
NEW DELHI - 110 011  
Member
4. A. K. M. Nayak  
Principal Secretary to the  
Government of Karnataka  
Anand Rao Circle  
BANGALORE - 560 029  
Member
5. Dr. M. Jayaram  
Director  
All India Institute of Speech and Hearing  
MYSORE - 570 006  
Member Secretary

## Academi Committee

1. Prof. B.S. Ramakrishna  
Former Vice-Chancellor  
68, 2nd Main, 2nd Cross  
Gangenhalli  
BANGALORE - 560 068  
Chairman
2. Dr. A.S. Bais  
Deputy Director General (M)  
Directorate General of Health Services  
Government of India  
Nirman Bhavan  
NEW DELHI - 110 011  
Member
3. Dr. R. Seethalakshmi  
Director of Medical Education  
Government of Karnataka  
BANGALORE - 560 009  
Member
4. Nominee of Vice-Chancellor  
University of Mysore  
MYSORE - 570 005  
Member  
Prof. Ramakrishne Gowda  
Department of Physics  
University of Mysore  
Manasagangothri  
MYSORE - 570 006
- 5-7. Three heads of departments of AIISH, Mysore  
Member
8. Dr. T.S. Sidhu  
HOD - ENT  
Ram Manohar Lohia Hospital  
NEW DELHI  
Member
9. Dr. P.V. Rajendrakumar  
Institute of Speech and Hearing  
Government General Hospital  
CHENNAI - 600 010  
Member

10. Dr. Shashidhar Prasad  
Professor and Head  
Department of Physics  
University of Mysore  
Manasagangothri  
MYSORE - 570 006

Member

11. Prof. L.M. Patnaik  
Convenor,  
Microprocessor Application Lab.,  
Indian Institute of Science  
BANGALORE - 560 012

Member

12. Dr. M. Jayaram  
Director  
All India Institute of Speech and Hearing  
MYSORE - 570 006

Member Secretary



## APPENDIX - 3

### FACULTY AND OTHER STAFF

#### Director

1. Dr. M. Jayaram

Director

#### Department of Audiology

1. Dr. Asha Yathiraj
2. Dr. K. Rajalakshmi
3. Mr. Animesh Burman
4. Dr. C.S. Vanaja
5. Ms. P. Manjula

Reader & HOD I/c

Lecturer

Lecturer

Lecturer

Lecturer

#### Department of Clinical Psychology

1. Dr. P. Kalaiah
2. Dr. S. Venkatesan
3. Dr. G. Jayarama

Professor and HOD

Reader

Lecturer

#### Department of Electronics

1. Mr. Ajish K. Abraham

Lecturer & HOD I/c

#### Department of ENT

1. Dr. K. Rathna Sabhapathy
2. Dr. H. Sundara Raju
3. Dr. K. Rajeshwari

Reader & HOD I/c

Lecturer

Lecturer

#### Department of Speech Pathology

1. Dr. K.C. Shyamala
2. Dr. Manjula R.

Reader in Language Pathology  
& HOD I/c

Reader in Speech Pathology

3. Dr. Basanti Devi
4. Ms. M. Pushpavathi
5. Dr. K.S. Prema

Lecturer in Linguistics

Lecturer

Lecturer

### Department of Speech Language Sciences

1. Dr. S.R. Savithri
2. Ms. K. Yeshoda
3. Ms. H. Rohini

Reader & HOD I/c

Lecturer

Lecturer

### General Administration

1. Mr. P.N. Gundu Rao
2. Mr. S.L. Vijayanarasimha
3. Mr. K. Purushothama

Accounts Officer

Asst. Admn. Officer

Office Superintendent

### Library and Information Centre

1. Mr. M. Mahadeva

Library and Information Asst.

## APPENDIX - 4

### PERSONNEL

#### Appointments

1. Dr. Rajeshwari	Lecturer in E.N.T.	9.5.2001
2. Dr. R. Manjula	Reader in Speech Pathology	22.6.2001 A/N
3. Dr. G. Jayarama	Lecturer in Clinical Psychology	22.6.2001 A/N
4. Mr. Ajish Abraham	Lecturer in Electronics	31.7.2001
5. Ms. N. Sreedevi	Research Officer	10.12.2001
6. Mr. P.N. Gundu Rao	Accounts Officer (on deputation)	21.1.2002
7. Mr. L. Manjunatha	Asst. Engineer	14.2.2002
8. Mr. Abraham Joby	Clinical supervisor	21.3.2002 A/N
9. Mr. Binay Kant Chaudhary	Itinerant Speech Therapist	11.12.2001
10. Ms. Sangeetha Mahesh	Clinical Assistant	13.12.2001
11. Mr. Kundan Madhav	Clinical Assistant	21.12.2001 A/N

#### Appointments on Contract Basis

1. Sri N. Chandrashekaraiah	Supervising Engineer
2. Sri M. N. Manjunath Rao	Junior Engineer
3. Sri A. R. Keerthy	Publicity & Information Officer
4. Ms. H. R. Sudha	Receptionist

#### Appointments under Projects

**Projects :** "Prevention of Deafness & Communication disorder".

1. Dr. D. Madhav	ENT Doctor
2. Dr. Lizzie John	ENT Doctor
3. Ms. C. S. Vijayalakshmi	Project Assistant
4. Ms. Dhanalakshmi	Project Assistant
5. Mr. P. C. Devaiah	Project Assistant



- |    |                       |                   |
|----|-----------------------|-------------------|
| 3. | 6. Mr. Gopee Krishnan | Project Assistant |
| 4. | 7. Mr. B. Suresha     | Project Assistant |
| 5. | 8. Mr. Pranav Kumar   | Project Assistant |
|    | 9. Ms. M. N. Poornima | Project Assistant |

Depa

### Appointments under AIISH Research Fund

- |     |                       |                    |
|-----|-----------------------|--------------------|
| 1.  | 1. Mr. M. Santhosh    | Research Assistant |
| 2.  | 2. Ms. Beula Maria M. | Research Assistant |
| 3.  | 3. Mrs. Asha G. G.    | Research Assistant |
| Gen | 4. Mr. G. Vijay Kumar | Research Assistant |

1

### Promotion

- |   |                             |                            |           |
|---|-----------------------------|----------------------------|-----------|
| 2 | 1. Mr. S.L. Vijayanarasimha | From Sr. Accountant to AAO | 22.1.2002 |
| 3 | 2. Ms. B.V. Jyothi          | From UDC to Accountant     | 5.7.2001  |

Lib

### Transfer

- |   |                        |                                 |           |
|---|------------------------|---------------------------------|-----------|
| 1 | 1. Mr. M.N. Subramanya | From Driver Gr. II to Lab Asst. | 30.4.2001 |
|---|------------------------|---------------------------------|-----------|

### Retirement (on Superannuation)

- |    |                     |                       |           |
|----|---------------------|-----------------------|-----------|
| 1. | Dr. M.V. Susheela   | Professor & HOD - ENT | 31.5.2001 |
| 2. | Mr. N.S. Subramanya | Accountant            | 31.5.2001 |

### Assured Career Progression

Assured Career Progression scheme was introduced in the year 2001-02 and made effective from 9.8.99 as envisaged in GOI orders and the number of beneficiaries till 31.3.2002 under this scheme is as follows :

Group 'B' — 03

Group 'C' — 32

Group 'D' — 34

**APPENDIX 5**

**ALL INDIA INSTITUTE OF SPEECH AND HEARING  
MYSORE 570 006**

**AUDITED STATEMENTS OF ACCOUNTS  
FOR  
THE YEAR ENDED 31ST MARCH 2002**

Edited and scrutinized by

Sri Vijaya Narasimha S.L.

Prepared by

Sri Prasad A.N. / Mrs. B.V. Jyothi

Printed by

Mrs. N. Parimala

**M. S. Aswathanarayana, B.Com., FCA**  
M. S. Aswathanarayana & Co.,  
Chartered Accountants  
No. 864/2, 1st Floor, N.S. Road  
Near Siddappa Square  
Mysore - 570 024

(O) 565180  
Email : aswathams@yahoo.com

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### AUDITOR'S REPORT

The Members  
of  
ALL INDIA INSTITUTE OF SPEECH AND HEARING

We have audited the attached Balance sheet of "ALL INDIA INSTITUTE OF SPEECH AND HEARING" as at 31st March 2002 and also the Receipts and Payments Account and Income and Expenditure Account for the year ending 31st March 2002 and report that,

1. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purposes of our audit ;
2. In our opinion and to the best of our information and according to the explanations given to us, the said accounts subject to the annexed observations forming part of this report give a true and fair view ;
  - i) In the case of the Balance Sheet, of the state of affairs of the society as at 31st March 2002, and ;
  - ii) In the case of the Income and expenditure account of the excess of income over expenditure for the year ending 31st March 2002.

Place : Mysore  
Date : 13th August 2002.

For M. S. Aswathanarayana & Co.,  
Chartered Accountant  
Sd/-  
(M. S. ASWATHANARAYANA)  
Proprietor



## Balance Sheet as at 31st March 2002

Liabilities	Amount					
	Rs.	Ps.	Current Year Rs.	Current Year Ps.	Previous Year Rs.	Previous Year Ps.
<b>Capital Fund:</b>						
Balance as on 1.4..2001	15,75,16,518.39					
Less assets written off during the year	11,99,078.38					
	15,63,17,440.01					
Add cost of mobile unit capital fund	26,94,337.90					
Add amount transferred from Income and Expenditure account	5,59,87,384.70					
			21,49,99,162.61			
Less : Transfers					15,75,16,518.39	
Funds (Schedule-A)			2,01,85,588.99		1,66,07,646.99	
Deposits and advances of outside parties (Schedule-B)			21,99,624.50		22,26,193.50	
Remittances account (Schedule-C)			1,03,528.26		57,567.01	
Other items (Schedule-D)			67,35,861.00		40,94,716.00	
Sponsored programmes and other schemes (Schedule-E)			12,11,153.06		39,10,178.91	
ADIP Scheme (GOI, Ministry of Social Justice & Empowerment) (Schedule-J)			17,93,227.38		11,12,039.88	
Ministry of Welfare scheme for Better Moulds for More People					7,008.77	
Due to ADIP Scheme					14,330.50	
<b>Total</b>			<b>24,72,28,145.80</b>		<b>18,55,46,199.95</b>	

Sdn.

Accounts Officer

Sdn.

Admin. Officer

Sdn.

A.C. J.A.C.

Sdn.

Sdn.

# ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE 570 006

## Balance Sheet as at 31st March 2002

Assets					Amount			
	Rs.		Ps.		Current Year		Previous Year	
	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.
Fixed and other assets (Schedule-F)					15,88,16,404.22		11,55,61,500.12	
Advances to staff (Schedule-G)					12,71,926.00		11,60,964.00	
Sundry debtors for deposits and advances (Schedule-H)					5,60,88,237.83		4,41,40,397.06	
Investments (Schedule-I)					1,26,48,006.00		1,14,18,087.00	
<b>Cash and Bank Balances</b>								
(a) Cash on Hand				4,458.82				
(b) Cash at Bank - SB A/c No.176 with BOB				23,08,047.50	23,12,506.32		1,11,09,915.84	
<b>Income accrued due :</b>								
(i) Interest accrued on PF a/c with MGPO				39,044.20				
(iii) Grant-in-aid (Plan) due				1,40,00,000.00	1,40,39,044.20		10,43,296.05	
GOI. Min. of Social Justice & Empowerment (Schedule-J)					17,93,227.38		11,12,039.88	
Sponsored programmes/Schemes (Schedule-E)					2,53,134.35			
Due from ADIP scheme					5,659.50			
<b>Total</b>					<b>24,72,28,145.80</b>		<b>18,55,46,199.95</b>	

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants

## Income and Expenditure account for the year ended 31st March 2002

Expenditure	Non-Plan		Plan		Current Year		Previous year	
	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.
Salaries and allowances (Annexure-2)	1,64,90,644.00	-			1,64,90,644.00		1,53,81,217.95	
Merit scholarship/stipend : Paid during the year	4,65,542.00	-			4,65,542.00		1,80,284.00	
Add outstanding 2001-02	1,07,436.00	-			1,07,436.00		1,15,678.00	
Travelling allowance : Paid during the year	4,83,390.00		48,411.00		5,31,801.00		4,81,004.00	
Add out-standing 2001-02	-	-		-	-	-	20,815.00	
Contribution to Leave Salary & Pension Fund	40,195.00	-			40,195.00		74,522.00	
Institute's contribution to funds:								
(a) Contributory Provident Fund	6,751.00	-			6,751.00		6,577.00	
(b) AIISH Pension Fund	7,71,390.00	-			7,71,390.00		7,65,300.00	
(c) Internal Rev. trd. to AIISH Pension Fund	*47,12,000.00	-			*47,12,000.00		0.00	
Interest on Funds : (a) Contributory Provident Fund	13,457.00	-			13,457.00		13,242.00	
(b) General Provident Fund	6,93,893.00	-			6,93,893.00		7,04,494.00	
Professional Services : Paid during the year	83,550.00		17055.00		1,00,605.00		1,44,550.00	
Add outstanding 2001-02	1,600.00	-		-	1,600.00		4,100.00	
Other charges (Annexure-3)	30,41,427.03		29,68,045.00		60,09,472.03		37,59,947.55	
AIISH Research Activities : Paid during the year	-	-	1,18,383.00		1,18,383.00		0.00	
Add outstanding	-	-	24,000.00		24,000.00		0.00	
Project on Prevention of Deafness and Hearing-impairment :								
Paid during the year	-	-	9,93,637.30		9,93,637.30		2,84,656.18	
Add Out-standing 2001-02	-	-	26,890.00		26,890.00		1,42,370.00	
Other payments (Annexure I)	1,09,990.10	-			1,09,990.10		0.00	
<b>Total</b>	<b>2,70,21,265.13</b>		<b>41,96,421.30</b>		<b>3,12,17,686.43</b>		<b>2,20,78,757.68</b>	

\* provision

Sdn.  
Accounts OfficerSdn.  
Admn. OfficerSdn.  
AO (IAC)Sdn.  
DirectorSdn.  
Chartered Accountants



**ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE 570 006**

**Income and Expenditure account for the year ended 31st March 2002**

Income	Non-Plan		Plan		Current Year		Previous year	
	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.
Grant-in-aid from GOI, Min. of H & FW - received during the year	1,87,40,000.00		4,70,00,000.00		6,57,40,000.00		7,01,50,000.00	
Less grants sanctioned for the year 2000-2001 but received during 2001-02		-	10,00,000.00		10,00,000.00		1,75,50,000.00	
	1,87,40,000.00		4,60,00,000.00		6,47,40,000.00		5,26,00,000.00	
Add grants sanctioned for the year 2001-02 but not received as on 31.3.2002		-	1,40,00,000.00		1,40,00,000.00		10,00,000.00	
<b>Total</b>	<b>1,87,40,000.00</b>		<b>6,00,00,000.00</b>		<b>7,87,40,000.00</b>		<b>5,36,00,000.00</b>	
Less : Amount transferred to Balance sheet	1,83,806.00		5,58,03,578.70		5,59,87,384.70		3,25,10,508.17	
Amount of revenue expenditure out of grant	1,85,56,194.00		41,96,421.30		2,27,52,615.30		2,10,89,491.83	
Other income : Internal revenues (Annexure-1)	79,29,740.43		-		79,29,740.43		9,46,732.80	
Income accrued due (interest on SB A/c. 839050-MGPO)	39,044.20		-		39,044.20		42,533.05	
Other receipts (Annexure 4)	4,96,286.50		-		4,96,286.50		-	
<b>Total</b>	<b>2,70,21,265.13</b>		<b>41,96,421.30</b>		<b>3,12,17,686.43</b>		<b>2,20,78,757.68</b>	

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants

## Receipts and Payments account for the year ended 31st March 2002

Receipts	Rs.	Ps.	Rs.	Ps.	Amount			
					Current Year		Previous Year	
					Rs.	Ps.	Rs.	Ps.
Opening Balance : Cash on hand	3,21,770.31							
Cash at Bank BOB SB A/c. No.176	1,07,88,145.53							
<b>Total</b>	<b>1,11,09,915.84</b>							
Less: Amount reflected under ADIP Scheme	14,330.50				1,10,95,585.34		1,16,67,382.98	
(1) Grant-in-aid from Ministry of Health & Family Welfare								
(i) Non-Plan		-	1,87,40,000.00					
(ii) Plan			4,70,00,000.00		6,57,40,000.00		7,01,50,000.00	
(2) Other receipts towards a) Other Charges					4,96,286.50			
(b) Internal revenues (Annexure I)		-		-	79,29,740.43		9,46,732.80	
(c) Capital Fund: (i) Capitalization of the cost of mobile van		-		-	26,94,337.90		20,52,513.18	
(ii) Disposal/Auction sale assets written off (Schedule-F)		-		-	13,52,055.55		94,77,571.66	
(d) HRA arrears		-		-	763.00		19,77,727.50	
(3) Advances to staff (Schedule-G)		-		-	0.00		4,01,126.00	
(4) Deposits/Advances to contractors and suppliers (Schedule-H)		-		-	0.00		7,83,04,140.82	
(5) Investments (Schedule-I)		-		-	0.00		21,33,666.00	
(6) Funds (Schedule-A)		-		-	0.00		84,63,854.47	
(7) Sponsored programmes and other schemes (Schedule-E)		-		-	0.00		31,04,555.90	
(8) Remittance and other Accounts (Schedule C)		-		-	88,494.30		33,93,501.44	
<b>Total</b>					<b>8,93,97,263.02</b>		<b>19,20,72,772.75</b>	
Sdn. Accounts Officer	Sdn. Admn. Officer	Sdn. AO (IAC)	Sdn. Director	Sdn. Chartered Accountants				

# ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE 570 006

## Receipts and Payments account for the year ended 31st March 2002

(Amount in Rs.)

Payments	Rs.	Ps.	Rs.	Ps.	Amount			
					Current Year		Previous Year	
					Rs.	Ps.	Rs.	Ps.
<b>A. RECURRING EXPENDITURE:</b>								
1. Salaries and allowances (Annexure-2)	1,51,17,000.00				1,51,17,000.00		1,41,26,572.95	
2. Travelling allowance	4,83,390.00		48,411.00		5,31,801.00		4,81,004.00	
3. Contribution to funds								
i) LS and PC deputationist	40,195.00				40,195.00		74,522.00	
ii) GPF interest	6,93,893.00				6,93,893.00		7,04,494.00	
iii) CPF interest	13,457.00				13,457.00		13,242.00	
v) Employers' contribution to CPF	6,751.00				6,751.00		6,577.00	
vi) AIISH Pension Fund	7,71,390.00				7,71,390.00		7,65,300.00	
4. Merit scholarship/stipend	4,65,542.00				4,65,542.00		1,80,284.00	
5. Other charges (Annexure-3)	28,21,131.03		27,93,458.00		56,14,589.03		36,18,458.55	
6. AIISH Research activities			1,18,383.00		1,18,383.00		0.00	
7. Professional services	83,550.00		17,055.00		1,00,605.00		1,44,550.00	
8. Other payments (Annexure 1)	1,09,990.10				1,09,990.10		0.00	
9. Project on Prevention of Deafness & Hearing-Impairment			9,93,637.30		9,93,637.30		2,84,656.18	
<b>B. NON-RECURRING EXPENDITURE</b>								
1. Fixed and other assets/gift equipment (Schedule-F)	2,650.00		3,97,96,901.65		3,97,99,551.65		4,16,62,588.70	
2. Deposits and advances of outside parties (Schedule-B)					26,569.00		3,89,311.00	
3. Advance to staff (Schedule-G)					1,10,962.00		6,08,598.00	



Payments	Rs.	Ps.	Rs.	Ps.	Amount	
					Current Year	Previous Year
					Rs.	Ps.
4. Deposits/Advance to contractors/suppliers (Schedule-H)					1,19,47,840.77	10,07,96,357.89
5. Investment (Schedule-I)					12,29,919.00	32,57,159.00
6. Funds (Schedule-A)					11,34,058.00	52,11,417.00
7. Sponsored programmes and other scheme (Schedule-E)					29,52,160.20	15,19,312.02
8. Remittances and other accounts (Schedule-C)						33,55,724.85
9. Out-standing expenses (Schedule-D)					40,94,716.00	16,98,480.00
10. Assets written-off (Schedule-F)					11,99,078.38	5,18,522.04
11. Capital fund account					0.00	15,67,065.00
12. Better mould project					7,008.77	0.00
Closing balance : Cash on hand		4,458.82				
Cash at Bank : BOB SB A/c.176		23,08,047.50				
Total		23,12,506.32				
Amount due to :- (1) ADIP Scheme		5,659.50			23,18,165.82	1,10,88,576.57
Total					8,93,97,263.02	19,20,72,772.75

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants

# ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE 570 006

## Details of Internal Revenues 2001-02

### Annexure-1

Sl. No.	Head of Account	Debit/payments		Credit/receipts	
		Rs.	Ps.	Rs.	Ps.
1.	License fee	1654.00		88,680.00	
2.	Interest on advances to staff			8,256.00	
3.	Interest on investment of GPF/CPF			6,15,805.16	
4.	Interest on short-term deposits			37,34,156.77	
5.	Interest on SB Accounts			2,53,232.00	
6.	Application fee			89,538.00	
7.	Admission fee - Hostel			3,110.00	
8.	Technical consultancy services			54,269.00	
9.	Vehicle hire charges	2,965.50		12,000.00	
10.	E-Mail/Internet charges	100.00		91,180.00	
11.	Rent (Hostel)			46,668.00	
12.	Rent (Guest House)	7,423.00		1,72,100.00	
13.	Rent (Dharmashala)	12,839.00		11,860.00	
14.	Sale of Journals/syllabus			23,431.00	
15.	Miscellaneous income	2,110.00		99,717.50	
16.	Depreciation charges	2,700.00		5,360.00	
17.	Registration fee			66,585.00	
18.	Certificate fee (cases)			4,87,650.00	
19.	Certificate fee (students)			2,84,339.00	

Sl. No.	Head of Account	Debit/payments		Credit/receipts	
		Rs.	Ps.	Rs.	Ps.
20.	Library membership/card fee			45,925.00	
21.	Orientation/short-term course fee		980.00	7,700.00	
22.	Tender form fee		3,276.00	2,72,496.00	
23.	Disposal/auction proceeds of assets written off		1,200.00	1,00,440.00	
24.	Therapy charges			1,10,500.00	
25.	Infrastructure assistance - Rehabilitation Council of India/camp	53,841.60		1,51,340.00	
26.	Infrastructure assistance - ADIP Scheme			19,675.00	
27.	Sanitary charges - students			3,350.00	
28.	Admission fee (institute)	20,901.00		4,34,733.00	
29.	Sale of garden produce			2,450.00	
30.	Fax charges			700.00	
31.	Laboratory facilities			1,75,000.00	
32.	Donation			4,57,494.00	
<b>Total</b>		<b>1,09,990.10</b>		<b>79,29,740.43</b>	

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants



**ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE 570 006**

**Details of Salaries and Allowances - 2001-2002**

**Annexure-2**

Sl.No.	Particulars	Non-Plan	Plan	Total
1.	Salaries - Officers	62,79,462.00		62,79,462.00
2.	Salaries - Establishment	99,86,561.00		99,86,561.00
3.	Overtime allowance	2,912.00		2,912.00
4.	Children education allowance	14,700.00		14,700.00
5.	Medical charges	88,010.00		88,010.00
6.	Leave travel concession	0.00		0.00
	<b>Total</b>	<b>1,63,71,645.00</b>		<b>1,63,71,645.00</b>
	(-) Outstanding 2000-2001	12,54,645.00		12,54,645.00
		<b>1,51,17,000.00</b>		<b>1,51,17,000.00</b>
	(+) Outstanding 2001-2002	13,73,644.00		13,73,644.00
	<b>Total</b>	<b>1,64,90,644.00</b>		<b>1,64,90,644.00</b>

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants

## Details of Other Charges - 2001 - 2002

Annexure-3

Sl.No.	Particulars	Non-Plan (in Rs)	Plan (in Rs)	Total (in Rs.)
1.	Water charges	5,549.00		5,549.00
2.	Telephone and Trunk call charges	46,637.90	1,47,689.00	1,94,326.90
3.	Consumables - Earmoulds	1,67,650.00		1,67,650.00
4.	Consumables - Spares	10,942.00		10,942.00
5.	Consumables - General	1,29,175.20	2,11,641.00	3,40,816.20
6.	Wages	5,51,201.00	6,38,779.00	11,89,980.00
7.	Entertainment	20,148.00		20,148.00
8.	Contingencies	85,311.43	41,620.00	1,26,931.43
9.	Audit fees	1,008.00	3,192.00	4,200.00
10.	Advertisement	1,43,760.00		1,43,760.00
11.	Anniversary expenses	58,915.88		58,915.88
12.	Electricity charges	2,16,115.00	7,26,411.00	9,42,526.00
13.	Printing and stationery	50,626.83	1,60,319.00	2,10,945.83
14.	Postage and telegrams	14,795.15	46,850.00	61,645.15
15.	Subsidies to Departmental Canteen	2,32,972.00		2,32,972.00
16.	Liveries and linen	24,126.00		24,126.00
17.	Maintenance of vehicle	21,830.27	1,53,761.00	1,75,591.27
18.	Maintenance of garden	11,361.00		11,361.00
19.	Maintenance of building - civil	7,58,683.02		7,58,683.02
20.	Maintenance of building - electrical	77,771.00		77,771.00

Sl.No.	Particulars	Non-Plan (in Rs)	Plan (in Rs)	Total (in Rs.)
21.	Maintenance of TE/OE	80,315.05	2,54,830.00	3,35,145.05
22.	Legal charges	1,000.00		1,000.00
23.	Maintenance of furniture	2,765.00		2,765.00
24.	Seminar and Symposia	17,404.00	1,41,562.00	1,58,966.00
25.	Spares and accessories		3,73,157.00	3,73,157.00
26.	Public education, publicity and information		12,793.00	12,793.00
27.	Xerox copying charges	38,588.80		38,588.80
28.	Affiliation fee	25,550.00		25,550.00
29.	VIP/Dignitaries Accounts	49,272.50		49,272.50
<b>Total</b>		<b>28,43,474.03</b>	<b>29,12,604.00</b>	<b>57,56,078.03</b>
(-) Out-standing 2000-01		22,343.00	1,19,146.00	1,41,489.00
		<b>28,21,131.03</b>	<b>27,93,458.00</b>	<b>56,14,589.03</b>
(+) Out-standing 2001-02		2,20,296.00	1,74,587.00	3,94,883.00
<b>Total</b>		<b>30,41,427.03</b>	<b>29,68,045.00</b>	<b>60,09,472.03</b>

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants



## Other Receipt for the year 2001-02

Annexure-4

Sl.No.	Head of Account	Amount (Rs.)		
		Non-Plan	Plan	Total
1.	Sale of earmoulds	1,44,315.00	-	1,44,315.00
2.	Sale of hearing aid spares	33,161.50	-	33,161.50
3.	Seminars/Symposia	19,750.00	-	19,750.00
4.	Water charges	2,99,060.00	-	2,99,060.00
<b>Total</b>		<b>4,96,286.50</b>	<b>-</b>	<b>4,96,286.50</b>

Sdn.  
Accounts OfficerSdn.  
Admn. OfficerSdn.  
AO (IAC)Sdn.  
DirectorSdn.  
Chartered Accountants

# ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE 570 006

## Funds 2001-02

### Schedule - A

Particulars	Con.Provident Fund		Gen.Provident Fund		Pension Fund		Total	
	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.
Opening balance as on 1.4.2001	1,54,655.00		77,53,015.00		86,99,976.99		1,66,07,646.99	
<b>Receipts during the year:-</b>								
Subscriptions	35,734.00		34,40,891.00		0.00		34,76,625.00	
Institute's contribution	6,751.00		0.00		7,71,390.00		7,78,141.00	
Interest on subscription	4,242.00		6,93,893.00		0.00		6,98,135.00	
Interest on contribution	9,215.00				0.00		9,215.00	
Interest on investments		0.00		0.00	5,37,603.00		5,37,603.00	
Amount transferred from internal revenues		0.00		0.00	*47,12,000.00		*47,12,000.00	
<b>Total receipts</b>	<b>55.942.00</b>		<b>41,34,784.00</b>		<b>60,20,993.00</b>		<b>1,02,11,719.00</b>	
<b>Payments during the year :-</b>								
Final payments/withdrawals/advances	42,966.00		31,29,707.00		0.00		31,72,673.00	
Payment of gratuity		0.00		0.00	6,91,987.00		6,91,987.00	
Pension/Family pension		0.00		0.00	18,54,568.00		18,54,568.00	
Commutated value of pension		0.00		0.00	9,14,549.00		9,14,549.00	
<b>Total Payments</b>	<b>42,966.00</b>		<b>31,29,707.00</b>		<b>34,61,104.00</b>		<b>66,33,777.00</b>	
<b>Closing balance as on 31.3.2002</b>	<b>1,67,631.00</b>		<b>87,58,092.00</b>		<b>1,12,59,865.99</b>		<b>2,01,85,588.99</b>	

\* provision

Note: The figure in respect of funds shown is the net in the Receipts and Payment a/c

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants

## Deposits and Advances of outside parties - 2001-2002

Schedule - B

Sl.No.	Particulars	Balance as on 1.4.2001		Receipts		Payments		Balance as on 31.3.2002	
		Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.
1	Cauton money deposit	3,61,900.00		1,62,000.00		2,60,850.00		2,63,050.00	
2	Contractor's security deposit	11,77,118.50		16,59,581.00		11,59,006.00		16,77,693.50	
3	Earnest money deposit	5,83,333.00		14,73,475.00		17,97,927.00		2,58,881.00	
4	Donations	1,03,842.00		0.00		1,03,842.00		*0.00	
<b>Total</b>		<b>22,26,193.50</b>		<b>32,95,056.00</b>		<b>33,21,625.00</b>		<b>21,99,624.50</b>	

\* transferred to Internal revenues.

Sdn.  
Accounts OfficerSdn.  
Admn. OfficerSdn.  
AO (IAC)Sdn.  
DirectorSdn.  
Chartered Accountants



# ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE 570 006

## Remittances Due 2001-2002

Schedule - C

Sl.No.	Particulars	Opening balance		Receipts/Credits		Payments/Debits		Closing balance	
		Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.
1.	Income Tax		0.00	9,97,203.00		9,95,983.00		1,220.00	
2.	Professional Tax	1,605.00		1,26,565.00		1,27,845.00		325.00	
3.	AIISH Staff Club	8,000.00		4,190.00		12,190.00		0.00	
4.	GIS	800.00		400.00		1200.00		0.00	
5.	Unpaid salaries	6,950.00		-		-		6,950.00	
6.	Suspense account	8,522.46		54,978.00		41,978.00		21,522.46	
7.	GSLIS	(-) 135.00		1,01,458.00		74,773.00		26,550.00	
8.	Examination Fee	(-) 7,381.00		77,856.00		70,075.00		400.00	
9.	Establishment charges	0.00		1,61,203.00		1,61,203.00		0.00	
10.	Sales Tax	1,104.00		10,28,484.00		10,26,774.00		2,814.00	
11.	CTD/RD/CD recoveries	(-) 50.00		84,130.00		84,130.00		*-50.00	
12.	GPF (Deputationists)	0.00		99,112.00		99,112.00		0.00	
13.	University of Mysore	44,116.00		1,73,355.00		2,17,471.00		0.00	
14.	Awards	(-) 292.45		1,072.07		779.62		0.00	
15.	KGID	8,720.00		5,000.00		13,720.00		-	
16.	Royalties	(-) 1,000.00		60,777.00		59,453.00		324.00	
17.	LIC Premium	(-) 200.00		9,65,224.40		9,65,716.40		(-) 692.00	
18.	Students' Association	(-) 4,238.00		6,550.00		2,312.00		0.00	
19.	Bank loan	(-) 1,000.00		1,000.00		-		0.00	

Sl.No.	Particulars	Opening balance		Receipts/Credits		Payments/Debits		Closing balance	
		Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.
20.	Prime Minister's National Relief Fund	(-) 7,954.00		10,455.00		2,501.00		0.00	
21.	Interest accrued due with MGPO	(-) 42,533.05		42,533.05		39,044.20		(-) 39,044.20	
22.	Examination remuneration		-	65,740.00		64,371.00		1,369.00	
23.	Mess advance		-	1,60,940.00		79,100.00		81,840.00	
24.	CGES		-	2,640.00		2,640.00		0.00	
25.	Postal Life Insurance		-	2,752.00		2,752.00		0.00	
26.	Sports fee		-	6,500.00		6,500.00		0.00	
28.	House building advance (others)		-	2,00,795.00		2,00,795.00		0.00	
<b>Total</b>			<b>15,033.96</b>		<b>44,40,912.52</b>		<b>43,52,418.22</b>		<b>1,03,528.26</b>

Net Receipts 2001-02 Rs. 88,494.30

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants

## ALL INDIA INSTITUTE OF SPEECH AND HEARING

## Other Liabilities - 2001-2002

Schedule-D

Sl.No.	Particulars	Opening balance		(-) Debit		(+) Credit		Closing balance	
		Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.
	<b>Non-Plan</b>								
1.	Salaries and allowances	12,54,645.00		12,54,645.00		13,73,644.00		13,73,644.00	
2.	Stipend/scholarship	1,15,678.00		1,15,678.00		1,07,436.00		1,07,436.00	
3.	Professional services	4,100.00		4,100.00		1,600.00		1,600.00	
4.	Other charges	22,343.00		22,343.00		2,20,296.00		2,20,296.00	
	<b>Plan</b>								
5.	Technical equipment	3,38,905.00		3,38,905.00		92,300.00		92,300.00	
6.	Furniture	15,38,145.00		15,38,145.00		0.00		0.00	
7.	Library and documentation	23,234.00		23,234.00		0.00		0.00	
8.	Other charges	0.00		0.00		1,60,458.00		1,60,458.00	
9.	Major works	1,55,264.00		1,55,264.00		41,87,931.00		41,87,931.00	
10.	Minor works	3,60,071.00		3,60,071.00		5,27,177.00		5,27,177.00	
11.	Travelling allowances	20,815.00		20,815.00		0.00		0.00	
12.	Electricity charges	42,046.00		42,046.00		0.00		0.00	
13.	Wages	77,100.00		77,100.00		14,129.00		14,129.00	
14.	Project - Prevention of Deafness & Hearing Impairment	1,42,370.00		1,42,370.00		26,890.00		26,890.00	
15.	AIISH Research activities	0.00		0.00		24,000.00		24,000.00	
	<b>Total</b>	<b>40,94,716.00</b>		<b>40,94,716.00</b>		<b>67,35,861.00</b>		<b>67,35,861.00</b>	
	Sdn. Accounts Officer	Sdn. Admn. Officer	Sdn. AO (IAC)	Sdn. Director	Sdn. Chartered Accountants				



ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE  
Sponsored Programmes and Other Schemes - 2001-2002

Schedule-E

Sl.No.	Particulars	Balance as on		Receipts		Payments		Balance as	
		1.4.2001		on 31.3.2002					
		Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.
<b>Liabilities</b>									
1.	Indian Council of Medical Research	64,832.51		6,598.00				-	71,430.51
2.	Scheme under HelpAge India	71,529.00		7,275.00				-	78,804.00
3.	UNICEF	13,226.50		2,411.00				-	15,637.50
4.	Symposium on Cross Cultural Studies on Language Process	4,200.00		428.00				-	4,628.00
5.	Mobile Unit under the aid of Government of Karnataka	29,08,181.45		62,543.00		26,94,337.90			2,76,386.55
6.	Research project on Developmental Milestones of Language Acquisition in India Language	3,156.20						-	3,156.20
9.	Project - Prevention of Deafness and Hearing Impaired	0.00						-	-
10.	WHO -Training Modules on POD and Training of Trainees	4,08,494.00		13,819.00				-	4,22,313.00
11.	WHO workshop for Health workers and other gross root level workers on Prevention, Identification and Management of Communication Disorders	1,53,683.00						-	1,53,683.00
12.	WHO - Seminar on the rehabilitation of Hearing impaired	85,307.00						-	85,307.00

Sl.No.	Particulars	Balance as on 1.4.2001		Receipts on 31.3.2002		Payments		Balance as	
		Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.
<b>Other Schemes</b>									
1.	Patients Welfare Fund	90,182.80		7,999.00		401.50		97,780.30	
2.	AIISH Anniversary Fund	1,336.00		0.00		1,336.00		0.00	
3.	Camp organizers account	2,027.00		57,500.00		57,500.00		2,027.00	
<b>Total Liabilities</b>								<b>12,11,153.06</b>	
<b>Assets</b>									
1.	RCI-CRE Programmes	2,98,794.45		7,83,500.00		11,41,026.80		(-) 58,732.35	
2.	Project - Transformation of Speech of the Hearing impaired	(-)1,94,771.00		369.00		-		(-)1,94,402.00	
<b>Total Assets</b>								<b>2,53,134.35</b>	
<b>Grand Total</b>		<b>39,10,178.91</b>		<b>9,42,442.00</b>		<b>38,94,602.29</b>		<b>9,58,018.62</b>	

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants

## Fixed and Other Assets - 2001-2002

chedule-F

Sl.No.	Particulars	Balance as on 1.4.2001		Additional purchase				*Recoveries **Transfers ***Written off		Balance as on 31.3.2002	
		Rs.	Ps.	Non-plan actuals Rs.	Ps.	Plan actuals Rs.	Ps.	Rs.	Ps.	Rs.	Ps.
1.	Building and other works										
	a) Completed buildings	2,61,44,995.29				4,46,290.00		-	-	2,65,91,285.29	
	b) Works in-progress	2,49,32,008.50				2,71,91,134.65		47,15,108.00	1,29,522.00	5,67,08,729.15	
	c) Building materials	13,437.17		-		-		-	13,437.17	0.00	
2.	Furniture and fixtures	52,89,328.82		-		7,06,037.00		-	2,45,136.56	57,50,229.26	
3.	Library books and films	87,80,239.03		-		13,95,525.00		-	9,423.00	1,01,66,341.03	
4.	Vehicles										
	a) Car (2 nos.)	1,13,700.00		-		4,00,619.00		-	-	5,14,319.00	
	b) Omni bus	2,51,095.57		-				-	-	2,51,095.57	
	c) Mobile unit	26,94,337.90		-		51,848.00		-	-	27,46,185.90	
5.	Technical equipment	3,12,61,925.42		-		68,65,093.00		92,300.00	6,36,191.83	3,75,83,126.59	
6.	Gifted equipment	1,33,06,063.59		-				-	-	1,33,06,063.59	
7.	Office equipment	24,42,422.18		2,650.00		26,35,506.00		-	2,98,462.14	47,82,116.04	
8.	Garden equipment	58,252.37		-		10,436.00		-	369.20	68,319.17	
9.	Sundry assets										
	a. Hostel utensils	1,20,256.86		-		19,634.00		-	18,360.15	1,21,530.71	
	b. Teaching aids	1,53,437.42		-		74,779.00		-	1,153.50	2,27,062.92	
Total		11,55,61,500.12		2,650.00		3,97,96,901.65		48,07,408.00	13,52,055.55	15,88,16,404.22	

Sdn.  
Accounts OfficerSdn.  
Admn. OfficerSdn.  
AO (IAC)Sdn.  
DirectorSdn.  
Chartered Accountants



**ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE 570 006**

**Statement showing details of works in progress as on 31.3.2002  
Major works in progress (PLAN)**

**Schedule-F1 (Page-1)**

Sl.No.	Particulars	Opening balance as on 1.4.2001	Expenditure 2001-2002		Closing balance as on 31.3.2002	
			Debits Rs.	Credits Ps.		
1.	Sports complex (AIISH Gymkhana)	9,783.00	47,63,443.00			47,73,226.00
2.	Modification of Audiology block	52,88,928.50	9,98,873.00			62,87,801.50
3.	Library block	1,7193,146.00	13,10,729.00			1,85,03,875.00
4.	Construction of compound wall - Dharmashala	6,40,301.00	4,86,332.00			11,26,633.00
5.	Construction of multipurpose vehicle garage		19,20,903.00	1,00,000.00		18,20,903.00
6.	Construction of stone masonry compound wall (main campus)		26,09,703.00	25,830.00		25,83,873.00
7.	Construction of multiple Speech-Language Therapy Clinic		1,12,32,508.00	3,692.00		1,12,28,816.00
8.	Construction of generator room		5,31,615.00			5,31,615.00
9.	Modification of canteen		7,31,223.00			7,31,223.00
<b>Total</b>		<b>2,31,32,158.50</b>	<b>2,45,85,329.00</b>	<b>1,29,522.00</b>		<b>4,75,87,965.50</b>

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants

**ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE 570 006**  
**Statement showing details of works in progress as on 31.3.2002**  
**Minor works in progress (PLAN)**

**Schedule-F1 (Page-2)**

Sl.No.	Particulars	Opening balance as on 1.4.2001	Expenditure 2001-2002		Closing balance as on 31.3.2002	
			Debits Rs.	Credits Ps.		
1.	Electrification work of shifting powerline/conversion of overhead -new lib. block	5,00,850.00				5,00,850.00
2.	Fixing kerbstone at AIISH	3,05,498.00				3,05,498.00
3.	Repair/replacement of worn-out sanitary work at Ladies hostel	2,49,063.00				2,49,063.00
4.	Repair/replacement of worn-out sanitary work at Gents hostel	2,02,392.00				2,02,392.00
5.	Improvement to AIISH Departmental Canteen	26,712.00				26,712.00
6.	Storm water drain at new library building		1,38,767.00	0.00		1,38,767.00
7.	Development of road to library building		4,988.00	0.00		4,988.00
8.	Construction of pump house to new library building		1,05,669.00	0.00		1,05,669.00
9.	Providing and fixing 2" pipeline near bore well of library building and providing and laying stoneware pipe and construction of manhole chambers		96,788.00	0.00		96,788.00
10.	Underground drainage line		12,25,054.00	0.00		12,25,054.00
11.	Two-wheeler parking near library		55,062.00	0.00		55,062.00
12.	Construction of ramp near quadrangle		22,711.00	0.00		22,711.00
13.	Renovation of bathrooms		2,05,168.00	0.00		2,05,168.00

Sl.No.	Particulars	Opening balance as on 1.4.2001	Expenditure 2001-2002		Closing balance as on 31.3.2002
			Debits Rs.	Credits Ps.	
14.	Shifting of HT line		1,24,448.00	0.00	1,24,448.00
15.	Formation of road to sports complex		2,25,037.00	0.00	2,25,037.00
16.	Interior decoration of guest house		56,584.00	0.00	56,584.00
17.	Construction of sump tank at new library building		15,930.00	0.00	15,930.00
18.	Work of providing and laying concrete over drain at children therapy park entrance		7,975.00	0.00	7,975.00
19.	Re-routing of underground cable from guest house to power house		3,21,624.65	0.00	3,21,624.65
<b>Total</b>		<b>12,84,515.00</b>	<b>26,05,805.65</b>	<b>0.00</b>	<b>38,90,320.65</b>

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants



## Advances to staff - 2001-2002

## Schedule-G

Sl.No.	Particulars	Balance as on 1.4.2001		Additions/ Debits		Recoveries/ Credits		Balance as on 31.3.2002	
		Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	Rs.	Ps.
A. Bearing Interest									
1.	House building advance	8,41,786.00			-	1,03,944.00		7,37,842.00	
2.	Scooter advance	2,06,033.00		2,97,234.00		60,224.00		4,43,043.00	
3.	Cycle advance	28,340.00		750.00		17,530.00		11,560.00	
4.	Motor car advance	25,300.00			0.00		0.00	25,300.00	
B. Not bearing interest									
1.	Festival advance	34,850.00		1,35,150.00		1,26,750.00		43,250.00	
2.	Travelling allowance advance	19,711.00		34,236.00		47,960.00		5,987.00	
3.	LTC advance	3,256.00			0.00		0.00	3,256.00	
4.	Medical advance	1,688.00			0.00		0.00	1,688.00	
Total		11,60,964.00		4,67,370.00		3,56,408.00		12,71,926.00	

Net Payments 2001-02 1,10,962.00

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants

Sundry Debtors for Deposits and Advances : 2001-2002

Schedule-H

Sl.No.	Particulars	Opening balance as on 1.4.2001	Debits / Payments Rs.    Ps.	Credits / Receipts Rs.    Ps.	Closing balance as on 31.3.2002
A. Permanent					
1	Karnataka Power Transmission Corporation Ltd., (3MMD)	1,99,067.00	1,08,173.00	0.00	3,07,240.00
2	Telephone - Department of Telecommunication	10,400.00	4,000.00	0.00	14,400.00
3	M/s. Little Gas Co. Kitchen equipment system.	23,500.00	0.00	0.00	23,500.00
B. Temporary					
1	Mysore City Corporation	100.00	0.00	100.00	0.00
2	University Engineering Division	1,282.93	0.00	1,282.93	0.00
3	Deputy Controller of Accounts, Dept. of Supplies	3,693.11	0.00	0.00	3,693.11
4	PF A/c. with MGPO, Mysore SB A/c.839050	11,01,803.00	42,28,287.05	32,01,266.00	21,28,824.05
5	Pension fund A/c. with Bank of Baroda SB A/c. 177	15,92,256.52	40,83,522.47	43,34,897.00	13,40,881.99
6	Advances -Suppliers	12,71,673.60	2,21,35,900.03	1,93,52,680.81	40,54,892.82
7	Short-term fixed deposit with Bank	3,90,00,153.00	16,69,98,066.00	15,78,57,628.00	4,81,40,591.00
8	Deposit with Vani Vilas Water Works	100.00	0.00	100.00	0.00
9	Loan with AIISH Departmental Canteen	52,479.00	1,399.00	13,399.00	40,479.00
10	Internal Revenue A/c. with Bank of Baroda SB A/c. No.196	4,25,935.40	21,834.96	4,25,000.00	22,770.36

Sl.No.	Particulars	Opening balance as on 1.4.2001	Debits / Payments		Credits / Receipts		Closing balance as on 31.3.2002
			Rs.	Ps.	Rs.	Ps.	
11	TOSHI A/c. with Bank of Baroda SB A/c. 199	9,140.00		369.00		0.00	9,509.00
12	Deposit with Karnataka Public Works Department	4,47,500.00		0.00	4,47,500.00		0.00
13	SB A/c. No.C & I 12 with State Bank of Mysore	1,313.50		143.00		0.00	1,456.50
<b>Total</b>		<b>4,41,40,397.06</b>	<b>19,75,81,694.51</b>	<b>18,56,33,853.74</b>	<b>5,60,88,237.83</b>		

Net Payments: Rs. 1,19,47,840.77

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants



## Investment 2001-02

## Schedule-I

Sl.No.	Particulars	Balance as on 1.4.2001		Additions / Payments		Realizations / Receipts		Balance as on 31.3.2002
		Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	
A. Contributory/General Provident Fund:-								
1.	Government Securities	2,80,000.00		0.00		1,40,000.00		1,40,000.00
2.	Units of Units Trust of India	16,00,000.00		0.00		0.00		16,00,000.00
3.	Fixed deposits with Bank of Baroda	13,19,019.00		14,34,760.00		13,19,019.00		14,34,760.00
4.	Deposit with KPTC Ltd.	34,00,000.00		0.00		0.00		34,00,000.00
B. Pension Fund:-								
1.	Government Securities	4,00,000.00		0.00		1,50,000.00		2,50,000.00
2.	Units of Units Trust of India	38,40,000.00		0.00		0.00		38,40,000.00
3.	Deposit with Bank of Baroda	41,517.00		10,03,228.00		0.00		10,44,745.00
C. Others : (CMD/Donations/PWF):-								
1.	Fixed deposit with State Bank of Mysore (PWF)	84,322.00		21,027.00		0.00		1,05,349.00
2.	Fixed deposit with Bank of Baroda (CMD)	3,43,282.00		35,441.00		0.00		3,78,723.00
3.	Fixed deposit with Bank of Baroda (Donations)	94,947.00		3,44,482.00		0.00		4,39,429.00

Sl.No.	Particulars	Balance as on 1.4.2001		Additions / Payments		Realizations / Receipts		Balance as on 31.3.2002
		Rs.	Ps.	Rs.	Ps.	Rs.	Ps.	
D. Endowment funds:-								
1.	Units with Units Trust of India:							
	Mother of the year award : Dr.Prathibha Karanth	10,000.00			0.00		0.00	10,000.00
2.	Fixed deposit with Bank of Baroda:							
	Abhilash award : Smt. India Kumari	5,000.00			0.00		0.00	5,000.00
Total		1,14,18,087.00		28,38,938.00		16,09,019.00		1,26,48,006.00

Break up of Deposits: Investments - Rs. 27,82,938.00  
STFD A/c Rs. 56,000.00

Net Payments : Rs. 12,29,919.00

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants

ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE 570 006

ADIP Scheme (Government of India, Ministry of Social Justice and Empowerment)

Balance Sheet as at 31st March 2002

Schedule-J

	Current year		Previous year			Current year		Previous Year	
	Rs.	Ps.	Rs.	Ps.		Rs.	Ps.	Rs.	Ps.
<b>Capital Fund:-</b>					<b>Closing Balance :-</b>				
Opening balance	11,12,039.88				Closing stock of hearing aids	8,30,120.00		23,041	
Add: Excess of Income over Expenditure	5,36,508.00				Amount due from AIISH			14,330.50	
	16,48,547.80		11,12,039.88						
Creditors for hearing aids	1,38,600.00				Bank of Baroda SB A/c No.184	9,63,107.38		10,74,668.38	
Amount due to AIISH	5,659.50								
Audit fee payable	420.00								
<b>Total</b>	<b>17,93,227.38</b>		<b>11,12,039.88</b>			<b>17,93,227.38</b>		<b>11,12,039.88</b>	

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants



## ADIP Scheme (Government of India, Ministry of Social Justice and Empowerment)

## Income and Expenditure account for the year ended 31st March 2002

## Schedule J-1

Expenditure		Amount				Income	Amount			
		Current year		Previous year			Current year		Previous year	
		Rs.	Ps.	Rs.	Ps.		Rs.	Ps.	Rs.	Ps.
Opening stock	23,041.00					Grants from Min. of Social Justice & Empowerment	13,00,000.00		0.00	
Add: Purchases	15,89,510.00					Proceeds on sale of Hearing Aids		0.00		1,887.50
2001-02	-----					Interest:-				
	16,12,551.00									
Less:Closing stock	8,30,120.00	7,82,431.00		19,19,663.00		a) SDR				17,808.00
	-----					b) SB A/c. 184	39,349.00			37,905.00
<b>Paid towards Infrastructural Assistance</b>		19,675.00		61,200.00		Excess of expenditure over income carried over to Balance Sheet				19,23,274.50
Contingencies		735.00		12.00						
Excess of income over expenditure transferred to balance sheet		5,36,508.00								
<b>Total</b>		<b>13,39,349.00</b>		<b>19,80,875.00</b>		<b>Total</b>	<b>13,39,349.00</b>		<b>19,80,875.00</b>	
Sdn. Accounts Officer		Sdn. Admn. Officer		Sdn. AO (IAC)		Sdn. Director			Sdn. Chartered Accountants	

ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE 570 006

ADIP Scheme (Government of India, Ministry of Social Justice and Empowerment)

Receipts and Payments account for the year ended 31st March 2002

Schedule J-2

Expenditure	Amount				Income	Amount			
	Current year		Previous year			Current year		Previous year	
	Rs.	Ps.	Rs.	Ps.		Rs.	Ps.	Rs.	Ps.
<b>Opening balance :</b>					Purchase of Hearing Aids	14,50,910.00		19,40,874.00	
SB A/c with BOB - 184	10,74,668.38		3,65,718.38		Paid towards Infrastructure Assistance	-		61,200.00	
STFD with BOB		-	7,07,981.00		Contingencies			12.00	
Grants from Ministry of Social Justice and Empowerment, GOI	13,00,000.00		20,50,000.00		<b>Closing balance :-</b>				
Proceeds on sale of Hearing Aids			1,887.50		SB A/c. with BOB - 184	9,63,107.38		10,74,668.38	
<b>Interest :</b>					Due from AIISH		-	1,04,545.50	
a) SDRs		0.00	17,808.00						
b) SB A/c		39,349.00	37,905.00						
<b>Total</b>	<b>24,14,017.38</b>		<b>31,81,299.88</b>		<b>Total</b>	<b>24,14,017.38</b>		<b>31,81,299.88</b>	

Sdn.  
Accounts Officer

Sdn.  
Admn. Officer

Sdn.  
AO (IAC)

Sdn.  
Director

Sdn.  
Chartered Accountants