**DEPARTMENT OF AUDIOLOGY**

**Profile**

The major objectives of the Department of Audiology are to impart professional training, render clinical services, conduct research and educate the public on issues related to hearing impairment. In order to increase the manpower in the field of Audiology, imparting professional training through various short & long term training programs of diploma, graduate & postgraduate level. Further to offer a whole range of clinical services, it includes prevention of hearing loss, assessment of hearing, selection and fitment of hearing devices, provision of custom ear molds and rehabilitation of the individuals with hearing impairment. In addition, to promote research in the field of Audiology in order to keep abreast with the rest of the world.

**Academic Activities**

 **Guest Lectures**

The department organized six guest lectures during previous year. The details are given in table

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl.No** | **Resource Person** | **Topic** | **Date** |
| 1 | Dr. M D. RaviProf. of Paediatrics & Vice Principal Clinical, JSS Medical College | Development of the auditory system | 16.12.10 |
| 2 | Dr. T. K. Parthasarathy Prof. & Chair, Dept of Special education, Southern Illinois University | Issues in Assessment of Auditory Processing Disorders in Children  | 16.12.10 |
| 3 | Mr. Apurv Kumar Clinical Specialist, Cochlear, Bangalore | Cochlear Implant Candidacy Issues and Challenges | 17.12.10 |
| 4 | Dr. M.V. KirtaneProf. Emeritus, ENT Consultant at Hinduja Hospital, Mumbai | Evaluation of vestibular dysfunction: techniques and interpretation  | 29-01-11 |
| 5 | Dr. M.V. KirtaneProf. Emeritus, ENT Consultant at Hinduja Hospital, Mumbai | Management of vestibular disorders: An overview | 30.01.11 |
| 6 | Dr. Pranesha RaoSenior Speech LanguagePathologist and Audiologist, Bangalore | Alternate management techniques of vestibular disorders | 30.01.11 |

 **Short-term Training Programs**

 The short-term training programs organized by the department during the preceding year are

 given below.

|  |  |  |
| --- | --- | --- |
| **1** | **Topic**  | Observed clinical activities of the Department |
|  | **Objectives** | To sensitize the target population on prevention and identification of hearing impairment |
|  | **Targeted Audience** | Presentation Secondary School Miltown, County & Kertty, Ireland |
|  | **Number of Participants** | 1 |
|  | **Date** | 07.06.10 |

|  |  |  |
| --- | --- | --- |
| **2** | **Topic**  | Observed clinical activities of the Department |
|  | **Objectives** | To sensitize the target population on prevention and identification of hearing impairment |
|  | **Targeted Audience** | C4D2, AIISH, Mysore |
|  | **Number of Participants** | 11 |
|  | **Date** | May, June & July 2010 |

|  |  |  |
| --- | --- | --- |
| **3** | **Topic**  | Audiological diagnosis & management |
|  | **Objectives** | To provide clinical knowledge in evaluation and management of hearing impairment |
|  | **Targeted Audience** | Internship students (Clinical), Univ. of Applied Science, Utrecht, Dutch |
|  | **Number of Participants** | 3 |
|  | **Date** | 12th -28th July 2010 |

|  |  |  |
| --- | --- | --- |
| **4** | **Topic**  | Audiological diagnosis & management |
|  | **Objectives** | To provide clinical knowledge in evaluation and management of hearing impairment |
|  | **Targeted Audience** | PG students ,KIMS,Hubli  |
|  | **Number of Participants** | 2 |
|  | **Date** | 18th –19th October 2010 |

|  |  |  |
| --- | --- | --- |
| **5** | **Topic**  | Audiological diagnosis & management |
|  | **Objectives** | To provide clinical knowledge in evaluation and management of hearing impairment |
|  | **Targeted Audience** | ENT PG students, KIMS Hubli |
|  | **Number of Participants** | 2 |
|  | **Date** | 16th -21st December 2010 |

|  |  |  |
| --- | --- | --- |
| **6** | **Topic**  | Audiological diagnosis & management |
|  | **Objectives** | To provide clinical knowledge in evaluation and management of hearing impairment |
|  | **Targeted Audience** | PG students. Mysore Medical College, Mysore  |
|  | **Number of Participants** | 2 |
|  | **Date** | 15th -16th December 2010 |

|  |  |  |
| --- | --- | --- |
| **7** | **Topic**  | Audiological diagnosis & management |
|  | **Objectives** | To provide clinical knowledge in evaluation and management of hearing impairment |
|  | **Targeted Audience** | ENT PG student. Mysore Medical College, Mysore |
|  | **Number of Participants** | 1 |
|  | **Date** | 4th -5th January 2011 |

|  |  |  |
| --- | --- | --- |
| **8** | **Topic**  | Audiological diagnosis & management |
|  | **Objectives** | To provide clinical knowledge in evaluation and management of hearing impairment |
|  | **Targeted Audience** | ENT PG students , Medical College, Kolar |
|  | **Number of Participants** | 2 |
|  | **Date** | 4th -5th January 2011 |

|  |  |  |
| --- | --- | --- |
| **9** | **Topic**  | Audiological diagnosis & management |
|  | **Objectives** | To provide clinical knowledge in evaluation and management of hearing impairment |
|  | **Targeted Audience** | ENT PG students , Medical College, Kolar |
|  | **Number of Participants** | 2 |
|  | **Date** | 17th -18th January 2011 |

**In-house Training Programs**

The department conducted two in-house training programs, the details of which are given below

|  |  |  |
| --- | --- | --- |
| **1** | **Coordinator(s)** | Dr. Vijayakumar Narne |
|  | **Theme** | Staff enrichment program on Introduction and application of MATLAB |
|  | **Objectives** | To orient regarding the Application of MATLAB for stimulus generation, stimulus analysis, editing, EEG analysis and Statistics. |
|  | **Target Audience** | JRF, and staff from the department of Audiology from different departments of AIISH |
|  | **No. of Participants** | 15 |
|  | **Date** | 15.08.10 |

|  |  |  |
| --- | --- | --- |
| **2** | **Coordinator(s)** | Dr Manjula P & Ms Megha |
|  | **Theme** | Cochlear Implant  |
|  | **Objectives** | To orient on rehabilitation, speech coding strategies, fitting parameters of Maestro 4.0 software, candidacy of middle ear input and Auditory brainstem implant |
|  | **Target Audience** | I MSc. (Aud), II MSc. (Aud), JRFs, Staff of the Department |
|  | **No. of Participants** | 57 |
|  | **Date** | 05.03.11 |

**Seminars/Conferences/Workshops conducted**

The department conducted three seminars/conferences/workshops during previous year and the details are given below.

|  |  |  |
| --- | --- | --- |
| **1** | **Coordinator** | Dr. K.J. Ramadevi, & Mr. Darga Baba Fakruddin |
|  | **Theme** | Fine-tuning of digital hearing aids: For individuals with hearing impairment |
|  | **Objectives** | To provide information on care, use, trouble shooting of digital hearing aids & recent advances in hearing aid technology |
|  | **Target Audience** | Hearing aid users |
|  | **No. of participants** | 12 |
|  | **Date** | 02.09.10 |

|  |  |  |
| --- | --- | --- |
| **2** | **Coordinator** | Dr. P. Manjula, & Ms. Geetha, C |
|  | **Theme** | National Seminar on Paediatric Hearing Assessment and Rehabilitation |
|  | **Objectives** | To provide information regarding identification, assessment, & rehabilitation of children with hearing loss  |
|  | **Target Audience** | Audiologists |
|  | **No. of participants** | 34 |
|  | **Date** | 16.12.10 & 17.12.10 |

|  |  |  |
| --- | --- | --- |
| **3** | **Coordinator** | Dr. Animesh Barman, &Mr. Sujeet Kumar Sinha |
|  | **Theme** | National Symposium on Evaluation and Management of Vestibular Problems |
|  | **Objectives** | To understand the role of the vestibular system, the causes, assessment and management of these vestibular disorders.  |
|  | **Target Audience** | Practicing Audiologists, ENT Specialists and students |
|  | **No. of participants** | 129 |
|  | **Date** | 29.01.11& 30.01.11 |

**Research Activities**

1. **Funded Research Projects**

 **A.1 Projects with Extramural Funding**

|  |  |
| --- | --- |
| 1.Title  | Issues and strategies for development of human resources for deafness prevention, identification and management |
|  Objectives | To identify human resources and strategies for development of for prevention, identification and management of hearing impairment |
|  Investigators  | Dr.Vijayalakshmi Basavaraj (Principal Investigator) Prof. Manjula P (Co-Investigator) |
|  Fund | Rs.2,00,00/- |
|  Funding Agency | World Health Organization |
|  Status | Completed |

|  |  |
| --- | --- |
| 2.Title | Support for the dissemination and use of hearing aids |
| Objectives | To empower hearing aid beneficiaries by developing and distributing support material /educational material for individuals hearing impairment regarding hearing aid use andcare, tinnitus, prevention of hearing impairment. |
| Investigators  | Dr.Vijayalakshmi Basavaraj (Principal Investigator) Prof. Manjula P (Co-Investigator) |
| Fund | Rs.2,17,000/- |
| Funding Agency | World Health Organization |
| Status | Completed |

|  |  |
| --- | --- |
| 3.Title | Comparative efficacy of BTEs over body level hearing aids in the development of speech and language among the hearing impaired children. |
| Objectives | To study merits of BTEs and binaural BTEs over body level and monaural hearing aids |
| Investigators  | Prof. M Jayaram (Principal Investigator) Prof. Manjula P (Co-Investigator) |
| Amount | Rs. 5,03,000/- |
| Funding Agency | DRC (S&T) |
| Status  | Completed |

**A.2 Projects with ARF Funding**

|  |  |  |
| --- | --- | --- |
| **1** | **Title** | Maturation of auditory processes in children aged 6-11 Years |
|  | **Objectives** | To develop age appropriate norms on children for a battery of tests to identify (C)APD in a group of typically developing children at 2 centers.  |
|  | **Principal Investigator & Co-Investigator** | Dr. Asha Yathiraj, Dr. Vanaja C.S |
|  | **Fund** | Rs.3,90,000/- |
|  | **Status** | Data collection for children with suspected (C)APD is under progress at Pune |
|  | **Achievement in 2010-11** | The speech-in-noise test in English and revised auditory memory and sequencing test in English was developed. Data collection has been completed at Mysore center on typically developing children. |

|  |  |  |
| --- | --- | --- |
| **2** | **Title** | Pre-arithmetic school readiness test for children with hearing impairment |
|  | **Objectives** | To develop a test for assessing the readiness of children with hearing impairment in pre-arithmetic skills and to assess the utility of the developed tests. |
|  | **Principal Investigator & Co-Investigators** | Dr. Asha Yathiraj, Dr. I P. Gowramma, Dr. G.Malar, Ms.Prithi Nair and Ms. P. Vijetha |
|  | **Fund** | Rs.2,20,000/- |
|  | **Status** | Final test is being designed |
|  | **Achievement in 2010-11** | Test material was developed and data was collected for 25 typically developing children.  |

|  |  |  |
| --- | --- | --- |
| **3** | **Title** | Prediction of speech identification scores using speech intelligibility index |
|  | **Objectives** | A multi-centric study to evaluate the effectiveness of speech intelligibility index in prediction of SRS in Hindi, Marathi and Tamil languages |
|  | **Principal Investigator & Co-Investigators** | Dr. Asha Yathiraj , Dr. Manjula P, Dr. Vanaja C.S, Mr. Heramba, G |
|  | **Fund** | Rs.2,25,000/- |
|  | **Status** | In progress |
|  | **Achievement in 2010-11** | Speech identification test materials have been recorded in the languages considered in the study. 55% of the data have been collected for all four languages. Of this, 83% has been collected in Kannada, 53% in Tamil, 55% in Hindi and 60% in Marathi. The collected data have been tabulated to estimate the Speech Intelligibility Index (SII) and predict speech recognition scores |

|  |  |  |
| --- | --- | --- |
| **3** | **Title** | Efficacy of fine-grained auditory training in individuals with auditory dys-synchrony  |
|  | **Objectives** | To determine the efficacy of fine-grained auditory training among individuals with auditory dys-synchrony in the perception of voiced-voiced stop consonants on behavioural and electrophysiological measures. |
|  | **Principal Investigator**  | Dr. Asha Yathiraj |
|  | **Fund** | Rs.3,21,000/- |
|  | **Status** | Data collection is in progress |
|  | **Achievement in 2010-11** | Pre and post therapy assessment and fine-grained auditory training has been completed on 75% of the clients with auditory dys-synchrony. The data collected has been tabulated and the draft version of the report is under preparation. |

|  |  |  |
| --- | --- | --- |
| **4** | **Title** | Servicing and repair of hearing aids: A profile |
|  | **Objectives** | To explore various problems encountered by the hearing aid users who have obtained the hearing aids through ADIP scheme and HADS scheme and to quantify/list the problems faced by them when their hearing aids are given for repair. To take up steps or strategies for preventing such problems. |
|  | **Principal Investigator & Co-Investigator** | Dr. Manjula P, Ms. Devi N, Dr. Ramadevi K.J, Ms.Kalai Sevi  |
|  | **Fund** | Rs.2,22,000/- |
|  | **Status** | The data were collected for 6 months and the tabulation of data is in progress.  |
|  | **Achievement in 2010-11** | Data were collected, for the hearing aid users from 23.09.10 to 22.03.11 for approximately 450 users in which EAC measurements was carried out for approximately 400 hearing aids, including pre- and post-repair.  |

|  |  |  |
| --- | --- | --- |
| **5** | **Title** | Audiovisual perception and processing in individuals with auditory dyssynchrony |
|  | **Objectives** | To study audiovisual speech processing and perception in individuals with auditory dys-synchrony. |
|  | **Principal Investigator & Co-Investigator** | Dr. Sandeep M, Ms. Geetha C |
|  | **Fund** | Rs.3,11,000/- |
|  | **Status** | Ongoing |
|  | **Achievement in 2010-11** | Review of literature is complete. Data collection is in progress. 50% of the target data have been collected. |

|  |  |  |
| --- | --- | --- |
| **6** | **Title** | Cortical potential as measure of auditory temporal processes |
|  | **Objectives** | To study relation between cortical potentials, gap detection and speech perception in individuals with auditory neuropathy, cochlear hearing lossand normal hearing. |
|  | **Principal Investigator & Co-Investigators** | Dr. Vijayakumar Narne, Dr. Animesh Barman, Mr. Sujeet Kumar Sinha |
|  | **Fund** | Rs.3,24,000/- |
|  | **Status** | Statistical analysis and report writing is yet to be completed  |
|  | **Achievement in 2010-11** | Data analysis has to be completed for the groups with cochlear hearing loss and normal hearing |

|  |  |  |
| --- | --- | --- |
| **7** | **Title** | Protocol for vestibular assessment and its efficacy in differential diagnosis of balance disorders |
|  | **Objectives** | To develop a protocol for differential diagnosis of balance disorders and to assess the efficacy of the developed protocol in differential diagnosis of the pathologies related to giddiness |
|  | **Principal Investigator & Co-Investigators** | Mr. Niraj Kumar Singh, Mr. Sujeet Kumar Sinha, Dr. Rajeshwari G |
|  | **Fund** | Rs.3,26,000/- |
|  | **Status** | In progress |
|  | **Achievement in 2010-11** | Data collection is in progress. 2/3 portion of the data collection is over. |

**Doctoral Research**

The details of doctoral research carried out in the department during the reporting year, are given in table----

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl.****No.** | **Candidate** | **Topic** | **Guide** | **Status** |
| 01 | Ms. N Devi  | Auditory evoked potential correlation of speech and music in musicians and non-musicians | Dr. Vijayalakshmi Basavaraj (Till 18.03.11) | Ongoing |
| 02 | Mr. Sujeet Kumar Sinha,  | Brainstem encoding of speech sounds in the aging auditory system - An electrphysiological study | Dr. Vijayalakshmi Basavaraj(Till 18.03.11) | Ongoing |
| 03 | Mr. MK Ganapathy  | Effect of age and noise on acoustic change complex – An electrophysiological study | Dr. Vijayalakshmi Basavaraj(Till 18.03.11) | Ongoing |
| 04 | Mr. Prawin Kumar,  | Computer-assisted listening training program for individuals with hearing impairment | Dr. Asha Yathiraj | Ongoing |
| 05 | Mr. P.M. Jijo, JRF | The effect of enhancement of amplitude and durational cues on speech perception in individuals with auditory neuropathy spectrum disorders | Dr. Asha Yathiraj | Ongoing |
| 06 | Ms. Roshni Pillai | Auditory, visual and auditory-visual processing in children with learning disability | Dr. Asha Yathiraj | Ongoing |
| 07 | Mr. N. Hemanth, JRF | The Effect of amplification on objective measure at brainstem and cortical level and behavioral measure in individuals with peripheral hearing impairment | Dr. Manjula P | Ongoing |
| 08 | Ms. C Geetha  | Optimization of compression parameters in hearing aids using Aided Audibility Index | Dr. Manjula P | Ongoing |
| 09 | Mr. KS Sharath Kumar  | Effect of noise reduction algorithms (NRA) in hearing aids on acoustic and perceptual measures | Dr. Manjula P | Ongoing |
| 10 | Mr. MP Reuben Jebaraj,  | Influence of various hearing aid fitting strategies on speech recognition in individuals with sloping hearing loss  | Dr. Manjula P | Ongoing |
| 11 | Mr. Ranganath, | Development of a test tool for assessment of memory (working memory) in children | Dr. Rajalakshmi K | Ongoing |
| 12 | Ms. J Delcy Janet,  | Auditory Perception test in Tamil (APTT) – A tool for the assessment of auditory perception skills of children with hearing impairment in Tamil language | Dr. Rajalakshmi K | Ongoing |

**Postgraduate Research**

32 M.Sc (Audiology) students submitted their research work as partial fulfillment of Masters Degree under the guidance of faculty of the department. The details are provided in Table.

 Table: CompletedPostgraduate Research Works

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl.No.** | **Candidate** | **Topic** | **Guide** |
| 01 | Anuprasad | WARP processing vs. conventional processing. A comparative study in individuals with sensorineural hearing loss | Ms. Mamatha NM |
| 02 | Archana | Test battery for music perception in individuals using hearing devices | Prof. Manjula P |
| 03 | Badariya M | Effect of age on fatiguing characteristics of efferent inhibition | Dr. Sandeep M |
| 04 | Bhavya Rani M.S | Evaluation of speech evoked ABR for selection of hearing aids | Dr. V. Basavaraj |
| 05 | Chayakant Patro | Lexical neighbourhood test: an Indian-English version for children | Prof. Asha Yathiraj |
| 06 | Darshan S | Temporal fine structure (TFS) sensitivity in individuals with normal hearing and sensorineural hearing loss | Ms. Mamatha NM |
| 07 | Dhanya M | OAE profile in individuals with tinnitus | Dr. Animesh Barman |
| 08 | Divya Joseph | Conventional BTE vs.RIC (Receiver-in-the-canal) BTE hearing aids: A comparative study on perceptual and acoustic analysis of speech and music | Dr. Sandeep M |
| 09 | Giridhar G Krishnan | Dichotic rhyme test in Malayalam: A normative data on adults | Dr. K. Rajalakshmi |
| 10 | Hasna Fathima | Effect of prescriptive formulas on music perception in hearing aid users | Dr. V. Basavaraj |
| 11 | Kamala Sarathy | Effect of syllabic and dual compression on speech identification score across different degrees of hearing loss | Ms. Devi N |
| 12 | Kumari Apeksha | Effect of sensorineural hearing loss and digital hearing aid on speech evoked auditory later latency response | Ms. Devi N |
| 13 | Love Deep | Development and standardization of spondee work list in Rajasthani language | Dr. K. Rajalakshmi |
| 14 | Mohan | Maturation of the cortical evoked potential. | Dr. Animesh Barman |
| 15 | Nayana S | Development of the profile for evaluating hearing aid benefit in children. | Ms. Devi N |
| 16 | Neeraja Singh | Findings of Cochlear Hydrops Analysis Masking Procedure (CHAMP) in subjects with suspected and confirmed Meniere’s disease | Dr. V. Basavaraj |
| 17 | Prashanth Prabhu P | Development of auditory comprehension test for children in Kannada | Prof. Manjula P |
| 18 | Prashasti | Compressive non-linearity in sensorineural hearing loss – validates through electrophysiological test | Dr. Rajalakshmi K |
| 19 | Prathibha K K | Efficacy of ASSR as a tool for estimating loudness growth in children. | Dr. Rajalakshmi K |
| 20 | Priyanka M | Neurophysiological correlates of auditory training – brainstem and cortical structures | Dr. Sandeep M |
| 21 | Ramya | Ear mould modifications and its effect on different subjective and objective measures | Prof. Manjula P |
| 22 | Rathnakar | High frequency speech identification test in Telugu | Ms. Mamatha NM |
| 23 | Reesha OA | Music perception in audio and audio-visual impaired. | Ms. Devi N |
| 24 | Rohith H | Auditory evoked cortical responses in children using speech and non-speech stimuli | Dr. Animesh Barman |
| 25 | Sarooj Sahoo | Evaluation of performance with open fit and occluded RIC hearing aid | Prof. Manjula P |
| 26 | Sreela P.K | Effect of reverberation on speech identification scores of digital hearing aid users | Ms. Devi N |
| 27 | Swagathika | Effect of hormonal influence during menstrual cycle on immittance findings | Ms. Mamatha NM |
| 28 | Udit Saxena | Effect of background noise on temporal processing in children and young adults | Dr. Rajalakshmi K |
| 29 | Usha Shastri | Comparison of performance with BAHA and air conduction hearing aids in individuals with conductive hearing loss and mixed hearing loss | Prof. Manjula P |
| 30 | Vijayakumar | Effect of fine grain auditory training in the perception of voicing of stops in individuals with auditory dys-synchrony. | Prof. Asha Yathiraj |
| 31 | Vinu Francis | VEMP in individuals with otitis media  | Dr. Animesh Barman |
| 32 | Vivek Mandal | Effect of aging on VEMP  | Dr. Animesh Barman |

Postgraduate research works of 36 M.Sc (Audiology) students are going on under the guidance of faculty of the department.The details are given in table …

 Table Postgraduate research works under progress

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl.****No.** | **Candidate** |  **Topic**  |  **Guide** |
| 01 | Achaiah M.A | Comparison of preferred and prescribed gain in experienced hearing aid users | Dr. Vijayakumar Narne |
| 02 | Akash Juneja | Acoustic change complex in developing children (7-15 years of age) | Ms. Devi N |
| 03 | Akshay Raj Maggu | Effect of temporal pattern training on specific central auditory processes | Dr. Asha Yathiraj |
| 04 | Anisha A.B. | Immittance findings in infants using different probe tone frequencies | Ms. Mamatha N.M |
| 05 | Anjana Beninja Jacob | Effect of non-linear frequency compression in children with limited benefit from high frequency amplification | Ms. Geetha C |
| 06 | Anoop B.J. | Test retest reliability of VEMP parameters | Mr. Niraj Kumar Singh |
| 07 | Anoop O. Thomas | Effect of musical training on temporal resolution and speech perception in noise | Dr. Rajalakshmi K |
| 08 | Ashwini Rao P.N. | Electrically evoked stapedial reflex thresholds: Relationship with behavioral ‘T’ and ‘C’ levels in cochlear implant users | Dr. Asha Yathiraj |
| 09 | Bhamini Sharma | Relationship between DPOAE fine structure and hearing sensitivity across different age groups and gender | Dr. VB / Mr. Sujit Kumar Sinha |
| 10 | Bharath Bhushan K.R. | Physiological correlates of masking level difference | Dr. Animesh Barman |
| 11 | Chaitra V. | Effect of filtering and compression on right ear advsntage | Mr. Niraj Kumar Singh |
| 12 | Dhatri S. Devaraju | Developmental changes in co-modulation masking release for puretones: A cross sectional study | Ms. Mamatha N.M |
| 13 | Divyashree M.S. | Central auditory maturation and language development in children with hearing impairment | Ms. Mamatha N.M |
| 14 | Hanan Mohammed N.T. | Effect of context on brainstem encoding of speech | Dr. Sandeep M |
| 15 | Jyoti | Effect of number of channels of hearing aids on speech perception in varying degrees of sloping hearing loss | Mr. Niraj Kumar Singh |
| 16 | Mukesh Kumar | Dichotic word test for native Hindi speaking children | Ms. Chandni Jain |
| 17 | Navdeep Kanwer | Hearing aid benefit questionnaire for adults | Ms. Devi N. |
| 18 | Nike Gnanateja G. | Relation between consonant perception and psychoacoustic measures in auditory dys-synchrony | Dr. Animesh Barman |
|  |  |  |  |
| 19 | Nimisha Saxena | Temporal resolution in listeners with unilateral deafness | Dr. Vijaykumar Narne |
| 20 | Pallavi | Correlation of electrocochleograph (ECochG) and cochlear hydrops analysis masking procedure (CHAMP) in Meniere’s Disease | Mr. Prawin Kumar |
| 21 | Pavan M. | Correlation of Ripple noise discrimination with perception of amplitude compressed speech by individuals with cochlear hearing loss | Dr. Rajalakshmi K |
| 22 | Prabhash Kumar  | Effects of hearing aid processed speech on brain stem response | Dr. Sandeep M |
| 23 | Pragati Rao M.V. | Hearing aid usage: Relationship between auditory plasticity and audiological measures | Dr. Manjula P |
| 24 | Prajna Nayak | Evaluation of hearing aid parameters for optimal music perception in individuals with hearing impairment  | Dr. Manjula P |
| 25 | Praveen H.R. | Optimizing and evaluating the performance of hearing aid in the ear contra-lateral to the ear with cochlear implant in children | Dr. Manjula P |
| 26 | Priyanjali Harit | Vocal emotion recognition by normal-hearing listeners, individuals with hearing impairment and by auditory neuropathy/auditory dyssynchrony patients | Ms. Devi N |
| 27 | Ranjeet Ranjan | Effect of stimulus rate on sub-cortical auditory processing in children | Dr. Animesh Barman |
| 28 | Sharanya R. | Effect of hearing impairment and noise on the processing of simultaneous sentences | Dr. Rajalakshmi K |
| 29 | Shruti D. Gulvadi | Role of auditory working memory in prescribing hearing aid and type of compression in geriatrics | Ms. Geetha C |
| 30 | Sindhushree H.S. | Perception of emotions in cochlear implant users, hearing aid users and normal hearing children | Dr. Asha Yathiraj |
| 31 | Sonitha Kumar | Binaural interaction component of auditory brainstem response in children using click and speech stimuli | Mr. Sujit Kumar Sinha |
| 32 | Srikar V. | Acoustic change within a syllable in auditory neuropathy | Dr. Vijayakumar Narne |
| 33 | Suma Chatni | Acoustic change complex in native and non-native speakers of a tonal language | Dr. Sandeep M |
| 34 | Swathi V.M. | Effect of dance training on vestibular evoked myogenic potentials | Mr. Sujit Kumar Sinha |
| 35 | Tanvi G.N.  | Management of tinnitus: A comparative study | Ms. Geetha C |
| 36 | Vivek S.  | A comparison between outcomes using preferred gain and prescribed gain formulae in children  | Dr. Vijayakumar Narne |

**D. RESEARCH PUBLICATIONS**

**In-house publications**

The details of research papers published by the faculty members and students of the department in *Student Research at AIISH, Part A- Audiology, Volume VIII, 2010-11* are given below.

1. Anuprasad, S & Mamatha, N.M (2009-10). Warp processing vs. conventional processing in digital hearing aids: a comparative study. pp.1-5.
2. Archana & Manjula P. (2009-10). Music (Indian Music) perception pest battery for individuals using hearing devices. pp.6-17.
3. Badariya, M. & Sandeep M. (2009-10). Effect of age on fatiguing characteristics of efferent inhibition pp.18-25.
4. Bhavya Rani & Vijayalakshmi Basavaraj. (2009-10). Speech-evoked auditory brainstem responses on hearing aid selection. pp.26-36.
5. Chayakant Patro & Asha Yathiraj. (2009-10). The lexical neighbourhood test: An Indian-English version for children. pp.37-43.
6. Darshan, S. & Mamatha N.M. (2009-10). Determining temporal fine structure (tfs) sensitivity in individuals with normal hearing and cochlear hearing loss through frequency discrimination of complex tones. pp.44-52.
7. Dhanya, M., & Animesh Barman. (2009-10). OAE profile in individuals with tinnitus having normal hearing sensitivity. pp.53-63.
8. Divya S. Joseph & Sandeep, M. (2009-10). Conventional BTE vs RIC (receiver in the canal) BTE: a comparative study on perceptual and acoustic analysis of speech and music. pp.64-72.
9. Giridhar G. Krishnan & Rajalakshmi, K. (2009-10). Dichotic rhyme test in Mayalalam: A normative study. pp.73-80.
10. Hasna Fathima & Vijayalakshmi Basavaraj. (2009-10). Effect of prescriptive formulae on the perception of music in hearing aid users. pp.81-90.
11. Kamala Sarathy & Devi, N. (2009-10). Effect of syllabic and dual compression on speech identification scores across different degrees of hearing loss. pp.91-98.
12. Lovedeep Kholia & Rajalakshmi, K. (2009-10). Development and standardization of speech material in Rajasthani language. pp.108-114.
13. Mohan Kumar, K., & Animesh Barman. (2009-10). Maturation of speech evoked cortical auditory evoked potential. pp.115-124.
14. Nayana, S., & Devi, N. (2009-10). Development of questionnaire for evaluating hearing aid benefit in children. pp.125-137.
15. Niraja Singh & Vijayalakshmi Basavaraj. (2009-10). Findings of cochlear hydrops analysis masking procedure (CHAMP) in subjects with suspected and confirmed Meniere’s disease. pp.138-146.
16. Prashanth Prabhu P, & Manjula P. (2009-10). Development of test of auditory comprehension in Kannada (TAC-K). pp.147-155.
17. Prashasti & Rajalakshmi, K. (2009-10). Compressive non-linearity of basilar membrane-evaluation through elecrophysiological test. pp.156-161.
18. Prathibha, K.K., & Rajalakshmi, K. (2009-10). Elecrophysiological correlates of loudness using auditory steady state responses. pp.162-174.
19. Priyanka Madhok & Sandeep, M. (2009-10). Neurophysiological consequence of auditory training: subcortical and cortical structures. pp.175-183.
20. Ramya, V., & Manjula, P. (2009-10). Ear mould venting and its effects on different subjective and objective measures. . pp.184-190.
21. Ratnakar Y.V., & Mamatha, N.M. (2009-10). High frequency speech identification test in Telugu. . pp.284-290.
22. Reesha Hussain & Devi, N. (2009-10). Music perception in individuals with audio and audio-visual impairment. pp.191-198.
23. Rohith, H., & Animesh Barman. (2009-10). Cortical evoked potentials in children using speech and non-speech stimuli. pp.199-209.
24. Saroj Kumar Sahoo & Manjula, P. (2009-10). Evaluation of performance with occluded and open-fit receiver-in-canal (RIC) hearing aids. pp.210-220.
25. Sreela, P.K., & Devi, N. (2009-10). Effect of reverberation on speech identification using digital hearing aids. . pp.221-230
26. Swagathika Nayak & Mamatha, N.M. (2009-10). Effect of hormonal influence during menstrual cycle on immittance findings. . pp.231-236.
27. Udit Saxena and Rajalakshmi, K. (2009-10). Effect of background noise on temporal processing in children and young-adults. pp.237-242.
28. Usha Shastri & Manjula, P. (2009-10). Comparison of performance between air conduction hearing aid and bone anchored hearing aid attached to the headband. pp.243-256.

**National Journal Publications**

1. Basavaraj V, Venkatesan S, Vasantha Lakshmi M.S & Purusotham P (2010). Pilot study on process evaluation of DHLS program conducted through real vis-à-vis virtual modes : 2007-08. Journal of All India Institute of Speech and Hearing, V.29(2).
2. Ganapathy S.H & Basavaraj V. (2010). The effect of bone vibrator coupling force in bone conduction ABR. Journal of Indian Speech and Hearing Association, V.24(2).
3. G a r v i t a M e h t a & S a n d e e p M ( 2 0 1 1 ) .Neurophysiological representation of hearing aid processed speech. Journal of Indian Speech and Hearing Association, V.25 (1).
4. Kumar P & Yathiraj A (2010). Auditory comprehension passage test for children in Indian-English. Journal of Indian Speech and Hearing Association, V.24 (2)
5. Kumari Apeksha & Devi N (2010). Effect of sensorineural hearing loss on speech evoked aided auditory late latency response. Journal of All India Institute of Speech and Hearing, V.29(2).
6. Manjula R & Priya M.B (2010). Effect of posture on respiratory and phonatory measures in typically developing children: Implications in cerebral palsy. Journal of Indian Speech Language and Hearing Association,V.24(2).
7. Sujeet Kumar Sinha & Basavaraj V. (2010). Auditory brainstem responses to forward and reversed speech in normal hearing individuals. Journal of All India Institute of Speech and Hearing, V.29(2).
8. Sujeet Kumar Sinha & Basavaraj V (2010). Lateral asymmetry in speech processing at the brainstem: Evidence from speech evoked ABR. Journal of All India Institute of Speech and Hearing, V.29(2).
9. Sujeet Kumar Sinha & Basavaraj V (2010). Speech evoked auditory brainstem responses: A new tool to study brainstem encoding of speech sounds. Indian Journal of Otolaryngology and Head & Neck Surgery, V.62(4).
10. Varun Uthappa, Priyanka Shailat & Animesh Barman (2010). Relationship between OAEs and behavioral discrimination ability of normal hearing individuals. Journal of All India Institute of Speech and Hearing, V.29(2).
11. Vijay Kumar Yadav Avilala, Prashanth Prabhu P & Animesh Barman (2010). The effect of filtered speech on speech identification scores of young normal hearing adults. Journal of All India Institute of Speech and Hearing, V. 29(2).

**International Journal Publications**

1. Akshay Raj Maggu & Asha Yathiraj (2011). Effect of noise desensitization training on children with poor speech-in-noise scores. Canadian Journal of Speech- Language Pathology and Audiology,V.35(1).
2. Kumar P & Yathiraj A (2009). Perception of speech simulating different configurations of hearing loss in normal hearing individuals. Clinical Linguistics and Phonetics, V.23 (9).

**National Conference Paper Presentations**

1. Animesh Barman. Hearing assessment in children with special needs. National Seminar on Paediatric Hearing: Assessment and Rehabilitation. All India Institute of Speech & Hearing, Mysore, 16-17 December 2010.
2. Animesh Barman. Vestibular pathways related to VEMP. National Symposium on Evaluation and Management of Vestibular Problems. All India Institute of Speech & Hearing, Mysore, 29-30 January 2011.
3. Basavaraj V. Strategy and protocol for universal hearing screening followed at AIISH, Mysore. Two-day Workshop on Newborn Hearing Screening : Formulating Strategy for India. Ali Yavar Jung National Institute for the Hearing Handicapped, Mumbai, 3-4 May 2010.
4. Basavaraj V. Role of newborn hearing screening. 6th South Zone and 28th Karnataka State ENT Conference. Mysore, 22 October 2010.
5. Basavaraj V. (2011). Developing communication skills in persons with communication disorders. National Conference on IT for persons with disabilities. Department of IT, BT and S&T, Government of Karnataka, Bangalore , 11 January 2011.
6. Chandni Jain. Hearing assessment in paediatric population using subjective measures. National Seminar on Paediatric Hearing: Assessment and Rehabilitation. All India Institute of Speech & Hearing, Mysore, 16-17 December 2010.
7. Dhananjay R & Sujeet Kumar Sinha. Brain-stem correlates of temporal processing in middle aged individuals: A preliminary study. 43rd Annual Convention of Indian Speech & Hearing Association (ISHACON), Kolkata, 21-23 January 2011.
8. Geetha C. Paediatric hearing aid fitting : Selection and verification. National Seminar on Paediatric Hearing: Assessment and Rehabilitation. All India Institute of Speech & Hearing, Mysore, 16-17 December 2010.
9. Hasna Fathima. Phonological activation during visual word recognition in deaf signers and hearing adults. National Seminar on Language Acquisition or Learning. University of Kerala, Trivandrum, 3-4 February, 2011.
10. Jyothi, Kanchan & Sujeet Kumar Sinha. Test-retest- reliability of cochlear hydrops analysis masking procedure test. 43rd Annual Convention of Indian Speech & Hearing Association (ISHACON), Kolkata, 21-23 January 2011.
11. Manjula P. Cochlear implant programming. National Seminar on Paediatric Hearing: Assessment and Rehabilitation. All India Institute of Speech & Hearing, Mysore, 16-17 December 2010.
12. Niraj Kumar Singh. Objective hearing assessment in pediatric population. National Seminar on Paediatric Hearing: Assessment and Rehabilitation. All India Institute of Speech & Hearing, Mysore, 16-17 December 2010.
13. Niraj Kumar Singh. VEMP recording techniques: Factors affecting and interpretation of VEMP. National Symposium on Evaluation and Management of Vestibular Problems. All India Institute of Speech & Hearing, Mysore, 29-30 January 2011.
14. Prawin Kumar. Issues on management of children with APD. National Seminar on Pediatric Hearing: Assessment and Rehabilitation. All India Institute of Speech & Hearing, Mysore, 16-17 December 2010.
15. Sandeep M. Screening and identification of hearing loss in children. National Seminar on Paediatric Hearing: Assessment and Rehabilitation. All India Institute of Speech & Hearing, Mysore, 16-17 December 2010.
16. Sreeraj K. Use of assistive listening devices in paediatric population with hearing impairment. National Seminar on Paediatric Hearing: Assessment and Rehabilitation. All India Institute of Speech & Hearing, Mysore, 16-17 December 2010.
17. Sujeet Kumar Sinha. Clinical applications of VEMP. National Symposium on Evaluation and Management of Vestibular Problems. All India Institute of Speech & Hearing, Mysore, 29-30 January 2011.
18. Vivek Mandal & Animesh Barman. On vestibular evoked myogenic potentials. 43rd Annual Convention of Indian Speech & Hearing Association (ISHACON), Kolkata, 21- 23 January 2011.
19. Yathiraj A. Listening training in paediatric population with hearing impairment. National Seminar on Paediatric Hearing: Assessment and Rehabilitation. All India Institute of Speech & Hearing, Mysore, 16-17 December 2010.
20. Yathiraj A. Assessment and management of CAPD. 63rd A n n u a l C o n f e r e n c e o f t h e A s s o c i a t i o n o f Otolaryngologists of India, Chennai, 6 - 9 January 2011.
21. Yathiraj A. Multi-disciplinary services and research in the area of cochlear implant. 43rd Annual Convention of Indian Speech & Hearing Association (ISHACON), Kolkata, 21-23 January 2011.

**International Conference Paper Presentations**

1. Manjula P. Audiological profile in individuals with cochlear nerve hypoplasia. 1st International workshop on CI. Maulana Azad Medical College, New Delhi, 3 April 2010.

**Books/Book Chapters**

1. Basavaraj V, Rangasayee R and others (2010). Chapter titled Hearing Impairment in the book Status of Disability in India – 2007 . Published by Rehabilitation Council of India, New Delhi.
2. Yathiraj A (2010). Auditory training and its importance and auditory verbal therapy. In Perception through hearing aids, auditory training and evaluation of hearing aids. Self-Learning material for the course titled Aural Rehabilitation of Children with Hearing Impairment, for M.Ed. (SE-DE) (HI). Published by IGNOU, New Delhi.
3. Yathiraj A (2010). Perception through auditory modality & basic acoustic properties of speech and its effect on hearing aids. Self-Learning material for the course titled Aural Rehabilitation of Children with Hearing Impairment, for M.Ed. (SE-DE) (HI). Published by IGNOU, New Delhi.
4. Yathiraj A (2010). Auditory training and its importance and auditory verbal therapy (AVT). Self-Learning Material for block in course titled Aural Rehabilitation of Children with Hearing Impairment, for M.Ed. (SE-DE) (HI). Published by IGNOU, New Delhi.
5. Yathiraj A (2010). Application of materials and methods in classroom and outside the classroom for individuals and group. Self-Learning material for block in course titled Aural Rehabilitation of Children with Hearing Impairment for M.Ed. (SE-DE) (HI). Published by IGNOU, New Delhi.
6. Yathiraj A (2010). Evaluation of hearing aids using electro acoustic analysis instrumentation; ISI standard and t e c h n i c a l s p e c i f i c a t i o n s ; H e a r i n g a i d s u n d e r governmental schemes and their performances; Makes and models of hearing aids; Development of ear mould technology and modification. Self-Learning material for block in course titled Aural Rehabilitation of Children with Hearing Impairment, for M.Ed. (SE-DE) (HI). Published by IGNOU, New Delhi.
7. Yathiraj A (2010). Technical specification for classroom devices. Self-Learning material for block in course titled Aural Rehabilitation of Children with Hearing Impairment for M.Ed. (SE-DE) (HI). Published by IGNOU, New Delhi.

**CLINICAL SERVICES**

The department offers a whole range of clinical services, to individuals starting from a few days old to elderly. The activities include prevention of hearing loss, assessment of hearing, selection and fitment of hearing devices, provision of custom ear molds and rehabilitation of the individuals with hearing impairment. These services may be broadly categorized as hearing evaluation and audiological management.

**A. General Clinical Services**

The general clinical services provided by the department are as follws

**A.1 Hearing Evaluation**

A battery of tests is administered with the state-of-the-art equipment on clients, complaining of problem in hearing, who visit the institute from all over the country and abroad. Physiological and electrophysiological tests play an important role in detecting the clients with functional hearing loss, whose number has shot up to avail the increased financial aid.

A few of the behavioural tests used at the department are Pure Tone Audiometry and Speech Audiometry. Facilities to carry out Behavioural Observation Audiometry (BOA) and Visual Reinforcement Audiometry (VRA) are also available. With VRA it is possible to obtain voluntary responses to sound stimuli from children as young as six months of age. Using objective tests, responses to auditory stimuli can be obtained without voluntary response from the individual. The objective tests used at the department include, Immittance evaluation, measurement of Oto Acoustic Emissions (OAE) Measurement of Auditory Evoked Potentials (AEP) and Auditory Steady State Responses (ASSR). After the hearing assessment, appropriate referrals or rehabilitative procedures are recommended. The referral could be for a medical / surgical line of treatment. Audiological treatment when recommended will be carried out at the department.

Table --- gives the details of clients seen for hearing evaluation and of certificates issued for eligible clients to avail welfare measures. Figure – gives the month-wise statistics of cases seen at hearing evaluation section. Figure … provides details of status of hearing in clients evaluated and figure… provides the deatails of certificates issued.

 Table **:**  Clients seen in hearing evaluation section

|  |  |
| --- | --- |
| Total no. of clients evaluated/screened for hearing problems | 11063 |
| No. of ears tested  | 17832 |
| * Normal hearing
 | 3459 |  |
| * Conductive hearing loss
 | 2596 |  |
| * Mixed hearing loss
 | 4270 |  |
| * Sensori-neural hearing loss
 | 7507 |  |
| No. of audiogram copies issued | 6403 |
| No. of clients tested in Hindi  | 413 |
| No. of certificates issued  | 1515 |
| * Financial aid
 | 893 |  |
| * Admission to school for the deaf
 | 129 |  |
| * Physically handicapped
 | 212 |  |
| * Tax exemption
 | 54 |  |
| * Education scholarship
 | 107 |  |
| * At camp
 | 4 |  |
| * Others
 | 120 |  |
| No. of clients for whom case history taken | 13157 |
| No. of clients for Pure tone audiometry | 10229 |
| No. of clients for Speech audiometry | 10306 |
| No. of clients for Immittance evaluation | 10536 |
| No. of clients for BOA | 767 |
| No. of clients for ABR | 2631 |
| No. of clients for OAE | 793 |
| No. of clients for VRA | 98 |
| No. of clients for CAPD tests | 39 |
| No. of clients for VEMP | 37 |

 **Fig. :** No. of clients tested in hearing evaluation section

 **Fig**.2 No. of ears tested with normal hearing & with different types of hearing loss

 **Fig: 3** No. of certificates issued in various categories

**A.2 Hearing Aid Trial**

For those clients who require hearing devices, evaluation is done to select appropriate hearing devices such as hearing aids and assistive listening devices. Evaluation is also done to decide cochlear implant candidacy. Programming of the cochlear implants is also being carried out for clients. The clients are also counseled on the hearing aid use and care. They are distributed with printed education material on the use of hearing aids. Table … and Figure 4 give the details of hearing aid trails carried out at the institute and at camps.

 Table 15**:** Clients seen in hearing aid trial unit

|  |  |
| --- | --- |
| Total no. of clients evaluated for hearing devices  | 10597 |
| No. of clients seen for hearing aid trial at AIISH  | 8761 |
| No. of clients seen for hearing aid trial at Camps | 751 |
| No. of hearing aid prescribed at camps | 623 |
| No. of clients counseled | 4038 |
| Hearing aids prescribed | 5061 |
| * Body level
 | 3740 |  |
|  - ADIP | 3569 |  |  |
|  - Purchased | 171 |  |  |
| * Analogue BTE
 | 23 |  |
| * Digital BTE
 | 1195 |  |
| * Trimmer Digital BTE
 | 102 |  |
| * Digital ITC
 | 49 |  |
| * Digital CIC
 | 9 |  |
| No. of clients recommended  | 1922 |
| * Auditory training
 | 1127 |  |
| * Speech reading
 | 795 |  |
| No. of hearing aids prescribed on exchange  | 274 |
| No. of clients for whom aided ASSR done  | 6 |
| No. of unaided/aided audiograms | 609 |
| No. of unaided/aided audiograms for CI | 29 |
| Candidacy for CI | 45 |
| Mapping for CI | 65 |
| Aided VRA  | 132 |
| Programming of digital hearing aids | 882 |
| No. of certificates issued for DL/LIC/Financial aid | 258 |
| No. of IGO done | 55 |
| No. of EAC of hearing aids done | 360 |
| No. of clients tested in Hindi | 316 |
| No. of clients recommended for retrial with custom ear mould | 336 |
| No. of clients for whom ALDs tried | 3 |
| No. of clients referred to AIISH | 67 |

Fig 4 **:** Activities at HAT Unit

**A.3 Counseling and Guidance**:

Counseling and demonstration on hearing aid use were carried out for 4038 clients who have been issued hearing aids. Individuals with poor speech identification ability were advised to use communication strategies and speech reading.

**Fig 5:** No. of clients seen for different activities at HAT Unit

**A.4 Ear Mould Making**

Custom ear moulds were made for clients who were prescribed and issued hearing aids. Ear moulds were also made with acoustic modification for research purposes. The central prosthetic lab had received ear impressions to be processed as ear moulds. Table … and Figure … give the details of activities carried out in the ear mould lab at AIISH and at camps. The types and number of ear moulds made are given in Figure ----

 Table ….No. of clients seen in ear moulds lab

|  |  |
| --- | --- |
| No. of clients seen | 3411 |
| No. of impressions taken | 5421 |
| No. of ear moulds made free-of-cost | 3247 |
| No. of ear moulds made on 50% payment | 0 |
| No. of ear moulds made on 100% payment | 2175 |
| No. of ear moulds completed | 5103 |
| No. of ear moulds issued  | 4674  |
| No. of hard regular moulds made | 3210 |
| No. of hard shell moulds made | 160 |
| No. of soft moulds made | 1940 |
| No. of ITC impression made | 45 |
| No. of swimmer plug (soft) | 49 |
| No. of molds with acoustic modifications | 4 |
| No. of ear moulds impression taken at camps | 342 |
| No. CPL impressions received | 314 |
| No. of CPL moulds completed | 311 |
| No. of CPL moulds defective | 3 |

Fig**. :**  No. of clients seen and no. of ear impression taken

Fig… **:** Types of ear molds made at the ear mould Lab

**A.5 Hearing Aid Dispensing Scheme**

For clients who are not eligible to avail a hearing aid under the ADIP scheme and for those clients who can afford to purchase the hearing aids, the hearing aids are dispensed at discounted rates through this scheme. The details of hearing aids prescribed for purchase under hearing aid dispensing scheme (HADS) are given in table … & figure …

 Table **:** Hearing aids dispensed under HAD scheme

|  |  |
| --- | --- |
| Total number of hearing aids dispensed  | 967 |
| * Body level
 | 36 |  |
| * BTE Analogue
 | 5 |  |
| * BTE Digital
 | 53 |  |
| * BTE Trimmer Digital
 | 848 |  |
| * ITC Digital
 | 24 |  |
| * CIC Digital
 | 2 |  |
| * ITE Digital
 | 1 |  |

 **Fig.** : No. of hearing aids dispensed every month at AIISH

Age-wise and gender-wise statistics of clients seen in hearing evaluation (HE), hearing aid trial (HAT) & counseling and ear mold (EM) sections of the department of Audiology is given in the table …. and Figure ….

 Table **:** Age-wise Statistics of Audiological Evaluation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Age****group** | **Hearing****Evaluation** | **Hearing Aid****Trial** | **HAT****Counseling** | **Ear moulds** |
| **Male** | **Female** | **Male** | **Female** | **Male** | **Female** | **Male** | **Female** |
| 00-01 | 163 | 108 | 132 | 104 | 48 | 27 | 61 | 58 |
| 02-05 | 644 | 513 | 908 | 683 | 174 | 149 | 344 | 304 |
| 06-10 | 437 | 376 | 516 | 379 | 178 | 117 | 180 | 129 |
| 11-15 | 347 | 273 | 294 | 218 | 117 | 74 | 114 | 97 |
| 16-20 | 396 | 301 | 241 | 161 | 96 | 69 | 101 | 65 |
| 21-25 | 412 | 297 | 215 | 130 | 114 | 66 | 73 | 52 |
| 26-30 | 386 | 306 | 193 | 89 | 94 | 69 | 72 | 47 |
| 31-35 | 351 | 256 | 150 | 128 | 55 | 55 | 49 | 34 |
| 36-40 | 351 | 268 | 166 | 139 | 108 | 85 | 63 | 53 |
| 41-45 | 326 | 236 | 176 | 121 | 81 | 73 | 62 | 50 |
| 46-50 | 311 | 239 | 210 | 120 | 119 | 82 | 76 | 66 |
| 51-55 | 347 | 219 | 244 | 143 | 143 | 88 | 96 | 55 |
| 56-60 | 370 | 262 | 325 | 170 | 168 | 96 | 121 | 64 |
| 61-65 | 416 | 256 | 398 | 165 | 235 | 131 | 153 | 87 |
| 66-70 | 391 | 262 | 415 | 198 | 262 | 128 | 182 | 76 |
| 71-75 | 351 | 186 | 368 | 133 | 225 | 130 | 133 | 52 |
| 76-80 | 227 | 95 | 295 | 96 | 161 | 53 | 107 | 33 |
| 81-85 | 135 | 69 | 169 | 48 | 74 | 56 | 50 | 19 |
| 86-90 | 60 | 27 | 60 | 35 | 38 | 15 | 20 | 8 |
| 91+ | 10 | 6 | 19 | 7 | 7 | 7 | 4 | 2 |
| **Total** | 6431 | 4555 | 5494 | 3267 | 2497 | 1570 | 2061 | 1351 |
| **10,986** | **8,761** | **4,067** | **3,412** |
| **Grand Total – 27,226** |

**Fig.9:** Gender-wise statistics of Audiological Evaluation

**B Specialized Clinical Services**

**B.1 Listening Training Unit**

Listening training is provided for clients who use hearing devices such as hearing aids, cochlear implants and for clients with tinnitus & hyperacusis. Training is provided mainly by student clinicians under the supervision of the staff. Training is given for some of the cochlear implantees by the staff of the department. Table … and figure … provides the details of the clients who have undergone listening training.

 Table … Activities in listening training unit

|  |  |
| --- | --- |
|  **Category**  | **Numbers** |
| Total no. of clients seen  | 2261 |
| Total no. of sessions | 14493 |
| No. of clients for whom demonstration therapy given | 145 |
| No. of new clients | 436 |
| No. of repeat clients | 1827 |
| No. of clients discharged | 68 |
| No. of clients discontinued | 105 |
| Parent counseling session (Individual) | 917 |
| No. of clients given training in Hindi  | 183 |
| No. of clients with CI  | 138 |
| No. of sessions for clients with CI | 906 |
| No. of sessions for tinnitus/hypercusis | 155 |
| Total no. of students posted | 1083 |

Fig.:Details of Listening Training Unit

 **Faculty and Staff Engagements**

 **Prof. Asha Yathiraj**

 **Seminars/Conferences/Workshops attended**

* 1st International workshop on CI organized by Dept. of ENT, Maulana Azad Medical College, New Delhi
* Pedagogy, organized by Academics, AIISH
* ISHACON43 held at Koltaka

**Positions Held**

* Academic Coordinator
* Chairperson, Anti-ragging squad
* Chairperson, BOE (Speech and Hearing),Mysore University
* Chairperson, BOE (Special Education), Mysore University
* Chairperson, LTU.
* Member – Core Committee to plan quasi distance mode post-graduate program in speech language and hearing.
* Member – Constituted for establishment of digital speech, language and hearing encyclopedia.
* Member, Core committee to plan quasi distance mode post-graduate program in speech language and hearing.
* Chairperson, Condemnation of equipment committee.
* Panelist in the Open House for public on cochlear implantation during 1st International workshop on Cochlear Implants at Maulana Azad Medical College, New Delhi.
* Panelist for the panel discussion on Challenges on Solutions in Cochlear Implantation
* BOS member, Calicut University
* Member, Modification of RR rules
* Member, Selection Committee , Ph.D candidates
* Chairperson, B.Sc (S&H) Entrance Examination
* Member, Selection committee for selection of staff in Group A, B, & C
* Chief Superintendent, B.Sc (S&H), Entrance examination
* Member, Review of ARF projects
* Member, RCI Sub-Committee
* Member, setting/scrutinizing the question papers for PG courses
* Member, Expert Committee of Rehabilitation Council of India.
* Member, Selection of ARF projects

**Other Curricular and Extracurricular Engagements**

* Examiner, Mysore University held in July 2010
* Board of Examiners (Special Education), AIISH, Mysore held on 13.10.10
* Administrative issues, AIISH, Mysore held on 13.10.10an & 19.10.10
* Reviewer in the meeting on project review group by ICMR, New Delhi held on 29.10.10
* Meeting regarding 2nd Alumni meeting 02nd July 2011held on 07.01.11
* DPC meeting held on 17&18.01.11
* Selection Committee meeting at Nirman Bhavan, New Delhi held on 27.01.11
* Attended BOAE (PG) meeting at Crawford Hall, UOM, Mysore held on 03.02.11
* Attended meeting on CBCS rules, regulations and syllabus on 03.02.11.
* Attended meeting on collaborative Indo-Norwegian collaborative research held at AIISH, Mysore held on 09.02.11
* Attended Core Committee meeting at Dr. M.V. Shetty College of Speech and Hearing, Mangalore on 16.02.11
* Attended Expert Committee meeting of R.C.I. on Development of Training Program on 17-18.02.11
* Attended BOAE (PG) meeting at Crawford Hall, UOM, Mysore held on 03.03.11
* Attended BOAE meeting at UOM, Mysore held on 18.03.11

**Prof. P. Manjula**

**Seminars/Conferences/Workshops attended**

* 1st International workshop on CI organized by Dept. of ENT, Maulana Azad Medical College, New Delhi
* Staff enrichment program on applications of MATLAB organized by the department of Electronics, AIISH
* Workshop on ‘Pedagogy and Evaluation Methods’ organized by the Academic section on 17th November 2010

**Positions Held**

* Head of the Department
* Board of Examiners UG & PG (S&H), University of Mysore
* Member, Selection Committee of Ph.D candidates.
* Member, setting/scrutinizing the question papers for PG courses
* Chairperson – Internship Committee, AIISH
* In-charge of Hearing Aid Dispensing Unit
* Member, Constituted for establishment of digital speech, language and hearing encyclopedia.
* Member, Condemnation of equipment committee

**Other Curricular and Extracurricular Engagements**

* Panelist in the Open House for public on cochlear implantation during 1st International workshop on Cochlear Implants at Maulana Azad Medical College, New Delhi on 02.04.10
* Moderator for the panel on Habilitation of Children with Cochlear Implantation held on 03.04.10
* Panelist for the panel discussion on Challenges on Solutions in Cochlear Implantation held on 03.04.10
* Selection Committee meeting for selection for posts of Audiologist Gr.I, Earmould Technician & Prostho-dental mechanic held on 27.04.10 & 28.04.10
* External Examiner at Dr.SRC Institute of Speech & Hearing, Bangalore held on 04.05.10
* Internal Examiner for II M.Sc (Audiology) viva-voce held on 26.05.10
* Examiner for University of Mysore June 2010 & July 2010
* Meeting on switching over of M.Sc programs to Choice Based Credit System (CBCS) on 03.11.10.
* Faculty meeting reg. faculty evaluation, distribution of works, JC,CC and guiding of dissertations, no. of papers to be presented in conference etc held on 09.06.10
* Meeting on selection of ARF projects held on 06.07.10
* Review of ARF projects held on 26.07.10
* Compiled the information given by different departments for renewal of registration for availing customs duty and central excise duty exemption held in July 2010
* BOE (PG), University of Bangalore held on 09.10.10
* Meeting with Neurologist regarding the PGDNA course in the month of Nov. 2010.
* Valuator of B.Sc (S&H), M.Sc (Audiology) & M.Sc (S&H) papers, Mysore University.
* Meeting regarding 2nd Alumni meeting on 02nd July 2011 held on 07.01.11
* Meeting organized at BIS, New Delhi to discuss the changes required in the draft of the IS document titled ‘Specifications for Behind-the-Ear (BTE) Hearing Aids – Digital held at Manak Bhawan New Delhi on 06.01.11
* DPC meeting held on 13.01.11
* Attended BOAE (PG) meeting at Crawford Hall, UOM, Mysore held on 03.03.11
* Attended meeting with CPWD engineer at AIISH held on 04.03.11
* Attended coordinators meeting reg. issue of scholarship for SC/ST at UOM, Mysore held on 24.03.11

**Dr. K. Rajalakshmi K**

**Positions Held**

* + HOD , Department of Material Development.
	+ DHLS Coordinator, Jabalpur Center
	+ Member, Constituted for establishment of digital speech, language and hearing encyclopedia
	+ DHLS Coordinators meeting reg. scrutinized the applications for DHLS Imphal Center held on 12.08.10
	+ Reviewer -valuation of BSc speech & hearing papers

**Other Curricular and Extracurricular Engagements**

* Examiner for University of Mysore held in June 2011
* DHLS Coordinators meeting reg. scrutinized the applications for DHLS Imphal Center held on 12.08.10
* Switching over of M.Sc programs to choice based credit system (CBCS) on 03.11.10.

**Dr. Animesh Barman**

**Positions Held**

* DHLS Coordinator, Cuttack Center
* EC member, AIISH Gymkhana
* Member, Constituted for establishment of digital speech, language and hearing encyclopedia.
* Inspector to provide a status report of the centre for the new born screening program at Cuttack DHLS centre

**Other Curricular and Extracurricular Engagements**

* Selection Committee meeting for selection of Audiologist Gr. II Post held on 29.04.10
* Internal Examiner for I M.Sc (Audiology) viva-voce held on 28.05.10.
* Examiner for University of Mysore held in June 2011
* Room Superintendent for B.Sc Examination held on 31.05.10
* Faculty meeting reg. faculty evaluation, distribution of works, JC,CC and guiding of dissertations, no. of papers to be presented in conference etc held on 09.06.10
* External examiner for University of Bangalore held on 17.07.10
* Examiner, Mysore University held in July 2010
* DHLS Coordinators meeting reg. scrutinized the applications for two DHLS centres (1) Ranchi (2) Cuttack held on 12.08.10
* Served as a member, setting/scrutinizing the question papers for PG courses on 02.12.10,03.12.10, 06.12.10 & 07.12.10.
* Valuator for BSc Exams during November/December exams
* Attended BOE at Manipal University on 22.12.10
* Attended meeting with CPWD engineer at AIISH held on 04.03.11

**Ms. Devi N**

**Positions Held**

* Member for committee for neonatal screening at DHLS centre.
* Monitor for the activities of DHLS centers for the newborn screening program at DHLS center, Ajmer
* Inspector to provide a status report of the centre for the new born screening program at Cuttack DHLS center

**Other Curricular and Extracurricular Engagements**

* Invigilator for BSc (S&H) & B.S.Ed Exams on 09.12.10
* Invigilator for PG Exams on 31.01.11

**Ms. Mamatha N.M**

**Other Curricular and Extracurricular Engagements**

* Internal Examiner for practical examination for DTYHI students at AIISH on 23.04.10
* Invigilator for II B.Sc ((S&H) May 2011
* Invigilator for B.Sc (S&H) Entrance examination on 05.06.10
* Faculty meeting reg. faculty evaluation, distribution of works, JC,CC and guiding of dissertations, no. of papers to be presented in conference etc. on 09.06.10
* Invigilator for BSc (S&H) on 02.12.10
* Invigilator for PG Exams on 04.02.11

**Dr. Sandeep M**

**Positions Held**

* DHLS Coordinator, Lucknow
* NSS Officer
* Member, Library Committee
* Member, Canteen Committee
* EC member, AIISH Gymkhana

**Other Curricular and Extracurricular Engagements**

* Deputy Chief Superintendent for B.Sc (S&H) Entrance Examination on 05.06.10, Delhi Center
* Room Superintendent for B.Sc (S&H) Entrance examination on 31.05.10
* Faculty meeting reg. faculty evaluation, distribution of works, CC, JC and guiding of dissertations, no. of papers to be presented in conference etc. on 09.06.10
* Served as a member, setting/scrutinizing the question papers for PG courses on 02.12.10 & 03.12.10 .
* Invigilator for BSc (S&H) on 03.12.10
* Invigilator for PG Exams on 01.02.11

**Ms. Geetha C**

**Positions Held**

* Member, Internship Coordination Committee
* Member in the committee for finalization and acceptance of TV spots.

**Other Curricular and Extracurricular Engagements**

* Invigilator for B.Sc (S&H) Entrance examination on 05.06.10
* Faculty meeting reg. faculty evaluation, distribution of works, CC, JC and guiding of dissertations, no. of papers to be presented in conference etc. on 09.06.10
* Invigilator for BSc (S&H) on 29.11.10 & 10.12.10
* Invigilator for PG Exams on 24.01.11

**Mr. Prawin Kumar**

**Other Curricular and Extracurricular Engagements**

* Invigilator for B.Sc (S&H) Entrance examination on 05.06.10
* Faculty meeting reg. faculty evaluation, distribution of works, CC, JC and guiding of dissertations, no. of papers to be presented in conference etc. on 09.06.10
* Invigilator for BSc (S&H) on 13.12.10
* Invigilator for PG Exams on 29.01.11

**Mr. Sreeraj K**

**Other Curricular and Extracurricular Engagements**

* Invigilator for B.Sc (S&H) 07.06.10
* Faculty meeting reg. faculty evaluation, distribution of works, JC,CC and guiding of dissertations, no. of papers to be presented in conference etc. on 09.06.10
* Invigilator for BSc (S & H) on 01.12.10 &14.12.10
* Invigilator for PG Exams on 28.01.11

**Mr. Sujeet Kumar Sinha**

**Positions Held**

* Member, Public Grievances Cell
* Incharge – International Guest House, AIISH
* Asst. Warden for boys hostel till 26.10.10
* Member Secretary, Vertigo Clinic, AIISH
* Co-chairperson for the poster presentation on 21.01.11 during the ISHACON43 at Kolkata

**Other Curricular and Extracurricular Engagements**

* Invigilator for B.Sc (S&H) Entrance Examination on 05.06.10
* Faculty meeting reg. faculty evaluation, distribution of works, CC, JC and guiding of dissertations, no. of papers to be presented in conference etc. on 09.06.10
* Invigilator for BSc (S&H) on 29.11.10 & 14.12.10
* Invigilator for PG Exams on 02.02.11

**Dr. Vijayakumar Narne**

**Positions Held**

* Member – Core committee to plan quasi distance mode post-graduate program in speech language and hearing
* Inspector to inspect the infrastructure for infant hearing screening and ear mould lab at DHLS centre, Shimla

**Other Curricular and Extracurricular Engagements**

* Invigilator for B.Sc (S&H) 05.06.10
* Faculty meeting reg. faculty evaluation, distribution of works, CC, JC and guiding of dissertations, no. of papers to be presented in conference etc. on 09.06.10
* Invigilator for BSc (S&H) on 29.11.10 & 01.12.10.
* Served as a member, setting/scrutinizing the question papers for PG courses on 02.12.10 & 03.12.10.
* Invigilator for PG Exams on 05.02.11.

**Mr. Niraj Kumar Singh**

**Positions Held**

* Member, Vertigo Clinic, AIISH

**Other Curricular and Extracurricular Engagements**

* Faculty meeting reg. faculty evaluation, distribution of works, CC, JC and guiding of dissertations, no. of papers to be presented in conference etc. on 09.06.10
* Invigilator for BSc (S&H) on 29.11.10 & 02.12.10.

**Ms. Chandni Jain**

**Positions Held**

* Member, Issue of clinical services on first & last Friday on every month.
* Member, Committee of Listening Training Unit.
* Member, Learning Disability Unit

**Other Curricular and Extracurricular Engagements**

* Faculty meeting reg. faculty evaluation, distribution of works, CC, JC and guiding of dissertations, no. of papers to be presented in conference etc. on 09.06.10
* Served as a member, setting/scrutinizing the question papers for PG courses on 02.12.10 & 03.12.10.
* Invigilator for BSc (S&H) on 29.11.10
* Invigilator for PG Exams on 27.01.11
* Served as internal examiner for PGDNA on 31.12.10.

**Dr. Ramadevi K.J**

**Other Curricular and Extracurricular Engagements**

* + - Internal examiner for practical examination for Diploma in HAET students at AIISH on 23.04.10.
		- Invigilator for B.Sc (S&H) 05.06.10

**Ms. Dhanalakshmi T**

**Other Curricular and Extracurricular Engagements**

* Invigilator for B.Sc (S&H) 05.06.10

**Mr. Jawahar Antony P**

**Positions Held**

* Member, Internship Coordination Committee

**Ms. Revathi K.R**

**Positions Held**

* ‘Monitor’ to supervise the activities of DHLS centers for the newborn screening program at DHLS center, Ajmer.
* Inspector to provide a status report of the centre for the new born screening program at r DHLS center, Ajmer on 31.01.11.
* Member, Issue of clinical services on first & last Friday on every month.
* Member Secretary, Committee of Listening Training Unit.