CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

3.1 Promotion of Research

3.1.1 Does the institution have recognized research center/s of the affiliating University or any other agency/organization?

The institute is recognized as a post graduate training and research center of the University of Mysore since its inception offering many PG diploma and degree courses. The institute has been *recognized as a Centre of Excellence in the area of deafness by the WHO, as a Centre for Advanced Research in the field of Speech and Hearing by the UGC under Section 2 (f) of the UGC Act of 1956 and as a Science and Technology Institute by the Department of Science and Technology, Govt. of India*

3.1.2. Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.

Consequent to a decision of the Executive Council of the institute, which met on 12th March 2001, a separate fund, known as "AIISH Research Fund (ARF)" has been established at the institute, so that the faculty of the institute and other professionals make use of this scheme to increase, both the quantitative and the qualitative output of research. Under this fund, short-term projects are awarded for 12-18 months duration with a budget of maximum ₹ 5 lakhs. The total annual budget earmarked for ARF presently, is ₹ 2 crores.

An AIISH Research Fund committee consisting of three to five persons constituted by the Director, with the Director as the Chairperson, will evaluate the proposals. Additional special invitees may be included in the committee whenever indicated. An Internal Research Committee also reviews the progress of the project, mid-way during the project to monitor the progress as well as to suggest mid-course corrections.

The ARF fund is created to encourage multi disciplinary and inter disciplinary research in areas of Speech, Language and Hearing and other allied areas as detailed below.

a) To pursue basic and applied interdisciplinary research in speech, language and hearing sciences and disorders in India through networking among institutions across the nation as well as international centers.
b) To augment the above objectives with a focus on the special population in India (the multilingual) and the sign language users.
c) To facilitate effective collaboration between various scientific and research agencies / laboratories and other organizations working in the field of speech, language and hearing sciences and disorders.
d) To disseminate information on aspects relevant to speech, language and hearing to the scientific community through publications.

The professional applying for ARF fund has to prepare a research proposal in the disciplines of Speech, Language and Hearing. A committee consisting of the Director as the Chairperson and professors nominated as members will monitor the research with respect to presentation of proposals and interim review. The coordination section headed by the Registrar, AIISH will send the project reports for review and will see that the reports are corrected and submitted based on reviewer's comments, if any. A hard copy and a soft copy shall be placed at AIISH Library and Information Centre.

The following policy recommendations were made:

a) Funding under research projects was increased from 50 lakhs to 2 crores.
b) Until previous projects were submitted, new projects was not awarded to investigators.
c) Action was initiated to see that all research reports and papers had to be checked for plagiarism and a report attached.

The institute has a research committee to monitor and address the issues of research. The composition of the Internal Research Committee (IRC) comprises of Director as the Chairperson and other subject experts relating to the subject area of research proposal. Special invitees are also co-opted wherever necessary.

Few recommendations made by the committee for implementation and their impact include:

- Publishing the research in Journals
- Patent generation, etc.

The recommendations made in 2011-12 were as follows:

Total no. of proposals presented	Total no. of proposals accepted without modification	Total no. of proposals accepted with modification	Total no. of proposals not recommended
71	12	30	29

The table below shows ARF committee meetings held during 2010-11 and 2011-12

Dates of meeting	Decision taken
06.07.2010	Evaluation of new project proposal research
27.07.2010	Review / monitoring of research projects
01.09.2010	Review of revised proposals for funding
15.06.2011 & 17.06.2011	Evaluation of new research project proposal
12.10.2011	Review / monitoring of research projects
18.10.2011	Review / monitoring of research projects

The research proposals including the ***doctoral thesis proposal are screened by the AIISH Ethics committee which has established ethical guidelines for bio-behavioral research involving human subjects***.

Course work committee for Doctoral programme is formed as per the 2004 and 2010 regulations of the University of Mysore, governing the award of the degree of doctor of philosophy (Ph.D.). "Doctoral Committee" means the committee constituted by the University, consisting of the Chairman, Board of studies of the concerned subject, Chairman, Department of studies of the respective department, two senior faculty members of the department and the Guide of the candidate. The Chairman, Board of studies of the concerned subject shall be the Chairman of the Doctoral committee. Similarly, for the candidates working at the research institutes/centres recognized by the university for the purpose of research the "Doctoral Committee" shall consist of Director/Head of the Institute/centre, (who will be the Chairman of the Doctoral committee), three Senior

Scientists/Faculty of the Institute in the concerned/related field and the Guide. Wherever Guide is also the Chairman of Board of Studies/Department of studies/senior faculty/Director of the institute, one more senior faculty member shall be included in the doctoral committee. The Doctoral committee shall monitor and evaluate (a) pre-registration colloquium, (b) pre-thesis submission colloquium and (c)viva-voce examination of the candidates. Since the faculty and other members of the doctoral committee may change due to superannuation etc., these can change depending upon the discretion of the Chairman of Department/Institute. However, the Guide's membership in the committee is by name only. The constitution and functions of the doctoral committee for award of doctor degree is as per the University of Mysore regulations. The Doctoral Committee shall consist of (a) the Guide and Co-guide, if any, of the candidate, (b) the Chairperson of the Department, and (c) two Senior Faculty Members / Scientists of the Department. The Guide shall be the Chairperson of the Doctoral committee. Wherever Guide is also the Chairperson of the Department, another Senior Faculty Member/Scientist shall be included in the committee. In such departments wherein the number of faculty is less than two, members of the Doctoral Committee shall be chosen from sister Departments. As the members of the Doctoral Committee may change due to superannuation, resignation of faculty or any other reason(s) these can be filled up by the University upon written request from the Guide, whose membership in the committee is by name only. The Doctoral Committee shall monitor and assess: pre-registration colloquium, progress reports of a candidate submitted periodically through the Head of the Department and the Director of Research and submit possible suggestions, if any, regarding the progress of research work to the candidate through the Director of Research and the Head of the Department, pre-thesis submission colloquium and open viva-voce of the candidate.

3.1.3. *What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/projects?*

Autonomy to the principal investigator:

The principal investigator has complete autonomy for conduction of research under extra mural and intra mural grants. Infrastructural support in terms of laboratory facilities including equipment, office and lab space, telephone, internet, water and electricity is provided.

Timely availability or release of resources:

Release of resources for ***projects granted under the intramural fund "AIISH Research Fund'*** is made available in time through the Coordination Section of the institute. The release of funds of the extra mural grants and others are done through Accounts Section of the institute.

Adequate infrastructure and human resources:

Infrastructural facilities including equipment, office and laboratory space, telephone, internet, water and electricity are provided from the institute. Contract posts as applicable to the projects are advertised and professionals are recruited.

Time-off, reduced teaching load, special leave etc. to teachers:

Research is an integral part of professional responsibility of the faculty of the institute and they are permitted to carry out the research work at their convenience beyond official assignments and after the working hours. There are no special leaves granted to the faculty to conduct research. However, if the faculty go outside on fellowships, they will be given leave for the concerned period.

Support in terms of technology and information needs:

Every department of the institute is provided with state-of-the-art equipment which are procured either through plan funds of the institute or through extra mural research grants. As a policy, the institute encourages basic, applied and multidisciplinary research by the faculty. The information needs are well met by the sophisticated library and documentation centre, both in the hard and soft versions.

Facilitate timely auditing and submission of utilization certificate to the funding authorities:

The administration of the institute, through the employed auditor of the institute, aids in the timely auditing and submission of utilization certificate to the funding authorities as and when required.

Any other:

The faculty is engaged in various other activities to promote research interests. They participate as resource persons in various workshops, seminars and conferences. As per the Bye-

laws, faculty is funded to attend one workshop / seminar / conference with leave and one workshop / seminar / conference without funding. They present papers in national and international conferences/seminars. They publish scientific articles in national and international journals. Student research is an important component in this and the faculty guide post graduate students for their dissertation work. The *abstracts of the dissertations are brought out as research papers and published by the institute annually as 'Student Research Articles" in the field of Speech-Language Pathology and Audiology*. Besides this, faculty guide students for presentation of research articles in national and international conferences/seminars. They also guide students and serve as co investigators for research papers published in national and international journals. The faculty is encouraged to take up projects and work towards fulfilling the mandate of the institute. Further, their promotions are also based on the research work done by them.

The *faculty serve as research guides for doctoral and post doctoral students*. AIISH Junior research fellowship is awarded to 8 candidates every year (4 in the specialty of Speech-Language Pathology and 4 in Audiology). In the past five years, approximately 27 fellowships are awarded under AIISH Junior Research Fellowship and 21 external/part time candidates are registered for Ph.D. Approximately 19 Ph.D is awarded in the last five years. Details are provided in the table below.

Details of Ph.D. Candidates (2007-2011)

Year	Ph.D. Awarded		JRF Enrolled	
	Total No.		Total No.	
2007-08	8	U. Ajith Kumar	2	Sujeet Kumar Sinha
		Divya Menon		Rajasudhakar R.
		Gouri Shankar Patil		
		P. Manjula		
		Ravanan P.		
		Rohini H		
		Vandana V.P.		
		Vani Rupela		
2008-09	4	Animesh Barman	1	Deepa M.S.
		Vinay S.N.		
		Banumathi N		
		Vijay Kumar Narne		

2009-10	4	Ananthi T. Kalai Selvi Preeja Balan Sandeep M.	5	Mr. Ganapathy M.K. Hemanth N. Jijo P.M. Hema N. Santosh Kumar
2010-11	1	Powlin Arocika Catherine S.	9	Abhishek B.P. Gnanavel K. Kuppuraj S. Prarthana S. Pravesh Arya Sampath Kumar Lagishetti Sunil Kumar Ravi Reuben Jebaraj P. Roshini Pillai
2011-12	2	Jayashree C. Shanbal Shilpashree H.N.	10	Priyanka V. V. Ramya Usha Shastri Mahesh B.V.M. A. Navya Reeny Roy Sahana M. Shylaja K. Yashaswini R. Yashomathi
Total	*19*		*27*	

3.1.4. *What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?*

The ***students of the institute are groomed into research right from the undergraduate programmes***. They present scientific papers under the guidance of faculty at national and international conferences and seminars. ***Post graduate students present their dissertation topics in front of a group of faculty and learn the skills to defend the study, choose appropriate research designs etc***. A research committee with all faculties participates in student presentation. ***Two courses on research at undergraduate level and one course each for Post Graduates and doctoral candidates are prescribed as a part of the curricular training***. Most of these include theoretical and practical training by faculty. Besides this, ***students who***

undertake to present and publish research papers are guided by the expert faculty. The *post graduate programmes are research based and every course focuses on addressing the evidence based practice (EBP) in clinical applications with the clients with communication disorders*.

Research interest in the students is promoted by:

a. Encouraging the students to present scientific papers in national and international forums.
b. Publishing scientific papers under the guidance and in collaboration with the faculty.
c. Produce dissertation and projects of a stipulated standard set by the institute under the guidance of a faculty.
d. Presenting peer reviewed journal articles in Journal Club that is organized once in a week.
e. The students are encouraged to think and use theoretical scientific knowledge in the clinic.

The details of student dissertations/ projects are given below:

Year	Departments				
	Speech-Language Pathology	Audiology	Speech-Language Sciences	Special Education	Clinical Services
2007-08	09	20	12	06	-
2008-09	15	20	05	05	-
2009-10	22	31	12	-	-
2010-11	21	40	16	03	01
2011-12	15	34	20	-	01

3.1.5. Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity, etc.)

A total of 308 dissertations at post graduate level was guided by the faculty. The details of faculty guided student research (Dissertations) in enclosed as **Appendix 12**.

A total of 178 research projects were undertaken by the faculty and staff in the reporting years. The details of Research Projects undertaken by the faculty (teaching) and non teaching staff including individual and collaborative research activity with extramural and intramural funds are enclosed as **Appendix 13**.

3.1.6. Give details of workshops/ training programmes/ sensitization programmes conducted/organized by the institution with focus on capacity building in terms of research and imbibing research culture among the staff and students.

A total of 133 workshops/seminars and conferences were conducted by various departments of the institute and the details are enclosed as **Appendix 9**.

A total of 260 short term training and orientation programmes were conducted in the report years and the details are enclosed as **Appendix 14.**

A total of 431 guest lectures were given by the faculty/staff to the institute in the reporting year and the same is enclosed in **Appendix 6A and 6B.**

3.1.7. Provide details of prioritised research areas and the expertise available with the institution.

The core areas of the profession are Speech-Language Pathology, Speech-Language Sciences and Audiology. Major research focus is within these core areas. However, multidisciplinary research across the following disciplines is also carried out:

a. Acoustics
b. Electronics
c. Clinical Psychology/Cognitive Sciences
d. Otolaryngology/Phonosurgery
e. Paediatrics
f. Neurology
g. Physiotherapy/Occupational therapy
h. Prosthetic& Orthotics
i. Plastic Surgery
j. Computer Science
k. Special Education

The table below shows the areas of expertise of the faculty in core and allied departments.

Sl. No.	Name of the faculty	Research areas
1.	Ajish K. Abraham Reader of Electronics	Design and Development of Biomedical instruments
2.	Ajith Kumar U. Reader in Audiology	Speech perception, Diagnostic Audiology

3.	Amrita Kanchan Lecturer in Clinical Psychology	Clinical Psychology
4.	Anagha Ashok Lecturer in Speech Pathology	Speech Language Therapeutics
5.	Animesh Barman Reader in Audiology	Auditory Physiology, Diagnostic Audiology
6.	Asha Yathiraj Professor of Audiology	Management of individuals with hearing impairment, Educational Audiology, Auditory Processing Disorders, Paediatric Audiology, Speech Perception, Cochlear Implants
7.	Brajesh Priyadarshi Lecturer in Linguistics	Clinical linguistics and Psycholinguistics
8.	Chandni Jain Lecturer in Audiology	Diagnostic Audiology, Paediatric Audiology, Auditory Processing Disorders
9.	Devi N. Lecturer in Audiology	Educational Audiology, Rehabilitative Audiology, Diagnostic Audiology
10.	Freddy Antony Assistant Lecturer	Behaviour Therapy, Psychometry, Neurological Assessment
11.	Geetha C. Lecturer in Audiology	Amplification Devices, Physiological tests, Auditory Processing Disorders
12.	Geetha Y.V. Professor of Speech- Language Sciences	Fluency Disorders, Language disorders
13.	Goswami S.P. Reader of Speech Pathology	Child and Adult Language Disorders
14.	Jayakumar T. Lecturer in Speech Sciences	Voice sciences, Speech production and perception, Event related potentials

15.	Jayarama, G. Reader in Clinical Psychology	Learning Disability, Behaviour Therapy, Neuro-Psychological Assessment, Community Services
16.	Jayashree C. Shanbal Lecturer in Language Pathology	Learning Disability
17.	Kishore Tanniru Lecturer in Audiology	Diagnostic Audiology, Psychophysics & Electrophysiology
18.	Malar, G. Reader in Special Education	Inclusive Education, Associated Problems with HI
19.	Mamatha N.M. Lecturer in Audiology	Auditory Physiology, Diagnostic Audiology, Electrophysiology
20.	Manjula P. Professor of Audiology	Rehabilitation Technology, Amplification Devices, Cochlear Implant
21.	Manjula R. Professor of Speech Pathology	Neurogenic Communication Disorders, Augmentative and Alternative Communication, Dysphagia, Prosody
22.	Manohar, N. Lecturer in Electronics	VLSI / Circuit designing on PCB level
23.	Nageshwar Patlola Lecturer in Speech Pathology	Motor Speech Disorders
24.	Niraj Kumar Singh Lecturer in Audiology	Diagnostic Audiology, Paediatric Audiology, Electrophysiology, Speech Perception, Auditory Physiology
25.	Pebbili Gopi Kishore Lecturer in Speech Pathology	Normal aspects of voice, voice disorders, cleft lip and cleft palate
26.	Prakash, T.K Lecturer in ENT	Vertigo, Meringoplasty
27.	Prawin Kumar Lecturer in Audiology	Electrophysiology, Auditory Processing Disorders

28.	Prema K.S. Professor of Language Pathology	Child and Adult Language Disorders, Reading Acquisition and its disorders
29.	Priti Nair Lecturer in Special Education	Development of Educational Material for HI
30.	Pushpavathi M. Professor of Speech Pathology	Fluency and Phonological Disorders, Cleft Palate and Laryngectomy
31.	Rajalakshmi K. Reader in Audiology	Psychoacoustic, Sign Language, Amplification Devices, Auditory Processing Disorders
32.	Rajasudhakar R. Lecturer in Speech Sciences	Voice and its disorders, Speech Acoustics, Bilingualism
33.	Rajeshwari, G. Reader in ENT	Phonosurgery, Micro Ear Surgery
34.	Renuka, C. Lecturer in Electronics	Digital Electronics
35.	Sachin L.C. Lecturer in Speech Sciences	Normal aspects of speech, Fluency and its disorders, Voice and its disorders, Professional Voice Care
36.	Sandeep M. Lecturer in Audiology	Evoked Potentials, Diagnostic Audiology
37.	Sangeetha Mahesh Clinical Lecturer	Childhood Language Disorders and Fluency Disorders
38.	Santosh C.D. Lecturer in Biostatistics	Biostatistics
39.	Santosh, M. Reader in Speech Science	Stuttering
40.	Sarikha Khurana Lecturer in Speech Sciences	Learning Disability
41.	Savithri S.R. Professor in Speech Sciences	Speech production, speech- language perception, stuttering, prosody

42.	Shobha N. Odunuvar Lecturer in Special Education	Development of Educational Material for HI
43.	Shyamala K.C. Professor of Language Pathology	Child and Adult Language Disorders, Bilingualism, Autism Spectrum
44.	Sreedevi N. Lecturer in Speech Sciences	Phonology and its disorders
45.	Sreeraj K. Lecturer in Audiology	Amplification Devices, Auditory neuropathy Anatomy and physiology Auditory system
46.	Sujeet Kumar Sinha Lecturer in Audiology	Electrophysiology, Diagnostic Audiology, Vestibular System, Auditory Neuropathy
47.	Sundaraja Raju, H. Professor of ENT	Phonosurgery, Micro Ear Surgery
48.	Swapna N. Lecturer in Speech Pathology	Child Language Disorders
49.	Vasanthalakshmi M.S. Lecturer in Biostatistics	Biostatistics
50.	Venkatesan, S. Professor of Clinical Psychology	Mental Retardation, Learning Disability, Biomedical Statistics
51.	Vijay Kumar Narne Lecturer in Audiology	Physchophysics, Electrophysiology, Auditory Neuropathy
52.	Vijetha, I. Lecturer in Special Education	Quality of Education Service for HI
53.	Yeshoda K. Lecturer in Speech Sciences	Voice and its disorders, Normal Speech and Language, Phonology

3.1.8. Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

The Institute has research linkages with national and international agencies during the past several decades as follows:

a) AIISH has had research funding from the international agencies like VRA, DANIDA, WHO, UNICEF and some of the leading national agencies like DST, ICMR, ICSSR, S & T Mission Mode, MCI, DOE/DIT, CSIR, SISC and HELPAGE etc., which have enabled the faculty and the staff to successfully complete various projects.

b) Various scientists and scholars from India and abroad are invited to visit AIISH and conduct workshops and seminars and deliver guest lectures. They also contribute to collaborative research. At the national level, AIISH had collaborative linkage with CIIL, CDAC, SJCE, NIE, BSNL, DEBEL, IIT, VIT, and NIT for conducting research.

c) Collaboration with faculty from international institutions are also established. The details are provided in **Appendix 15**.

d) Members of the faculty and technical staff of AIISH have received fellowships (from WHO, Fulbright, post-doctoral fellowships etc) and grants to get trained in UK, USA and European countries, who in turn have invited fellows from these countries.

e) In the reporting years, many dignitaries and VVIPs have visited the institute during which they have interacted with students and faculty/staff of different departments when they are engaged in various activities. The details of the visit of the dignitaries are provided in **Appendix 16**. On 18.5.2012, Bharath Rathna, Dr. A.P.J. Abdul Kalam, Former President of India visited the institute, addressed and interacted with the staff and students of the institute.

3.1.9 What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

There is **provision for 'study leave'** granted to the faculty to complete the doctoral or post doctoral programme at the institute or in other universities. 10% of the faculty has utilized the study

leave in the last five years. The provision of study leave has improved the quality of research and also has imbibed research culture in the campus. Details of study leave availed by the faculty in the last five years is provided below.

Sl No.	Name and Designation	From	To	No. of days
1.	Dr. Animesh Barman Reader in Audiology	01.06.2007	30.09.2007	122
2.	Ms. Yeshoda, K Lecturer in Speech Sciences	10.12.2007	09.12.2008	365
3.	Dr. Shyamala, K.C. Prof. of Language Pathology	01.05.2008	31.07.2008	92
4.	Mrs. Sangeetha Mahesh Clinical Lecturer	01.01.2012	31.12.2012	365
5.	Mr. Ajish K Abraham Prof. of Electronics and Acoustics	01.02.2012	31.07.2012	122

3.1.10. *Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land)*

The institute disseminates information about the research outcome in multiple ways:

a) The *students are posted in various hospitals to carry out new born screening and identify children at risk for communication disorders* under the supervision of staff. They also attend school screening programmes and camps conducted to screen persons with communication disorders.

b) The *website of the institute carries information regarding the forthcoming scientific events* which could be in the form of workshops, seminars, conferences or orientation programmes etc.

c) The *details of the research interest of the faculty and their publication is put up on the website* for wide readership and it is also put up in the web portal aiish.ac.in.

d) The *'Journal of All India Institute of Speech and Hearing'* is a home production of the institute publishing scientific peer reviewed articles annually. The articles include publications of the faculty and staff of the institute, other sister institutions in the country and international universities. The journal is subscribed by many national and international libraries and thus disseminated across the country and globe.

e) The abstracts / full length articles of the dissertations of the post graduate students is brought out as annual publication with the title *'Student Research Articles'*. The same is available for sale for those who are interested.

f) The *research findings as applicable to clinic are published as books from the institute*.

g) The research findings are published as *scientific articles in national and international journals*.

3.2. *Resource Mobilization for Research*

3.2.1. *What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization.*

The primary source for research is from the fund allocation for intra mural research grant called as 'AIISH Research Fund' under plan grants (general). The major heads of expenditure are non-plan general, non-plan salaries, plan general, plan capital, and plan salaries. The allocation of funds and actual utilization is shown below for the last five years.

Year	Plan grants General (Rupees in lakhs)	Allocation for research (in Rupees)	Expenditure for research (in Rupees)
2007-08	1100.00	10,00,000	10,46,813*
2008-09	1752.99	20,00,000	4,40,827
2009-10	2689.00	50,00,000	25,87,942
2010-11	3644.49	2,00,00,000	85,41,241
2011-12	2902.16	2,00,00,000	1,41,69,099
*Met out of carried forward balance			

3.2.2. Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

Intra Mural funding for research is provided for the faculty under *"AIISH Research Funds"* to conduct research. The total allocation and expenditure under this scheme is details in 3.2.1. The percentage of faculty who have availed the facility in the last four years is as follows:

Total % faculty who have availed ARF (last four years)

Year	% faculty who have availed the facility
2008-09	07 %
2009-10	54 %
2010-11	63 %
2011-12	68 %

3.2.3 What are the financial provisions made available to support student research projects by students?

Master's dissertation / project is a course in the Master's programme. Hence, there is no financial provision to support student research. However, all students are provided monthly stipend.

3.2.4. How does the various departments/units/staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.

Interdisciplinary and multidisciplinary focus in research has been one of the thrust areas in research. Few projects sanctioned under ARF and extra mural grants by DST under 'Cognitive Science Research Initiative' has faculty sharing the investigator's role from disciplines across Speech-language Sciences, Speech-Language Pathology, Audiology and Clinical Psychology. For example. a project funded under 'Cognitive Science Research Initiative' by DST (2011-12) titled "Cortical auditory evoked potentials as a measure of central auditory development in children with hearing impairment" includes three faculty from three different departments; Dept. of

Audiology, Dept. of Speech-Language Sciences and Dept. of Speech-Language Pathology. Equipment primarily used for research such as 'Neuro Scan' for Evoked Response Potential Studies, Electro Magnetic Mid Sagittal Articulograph etc are used by professional across the disciplines. No major challenges are faced in organizing the interdisciplinary research in the institute. Minor challenges faced in the form of timely submission of reports, sample size of the subjects etc is resolved through discussion.

3.2.5. *How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?*

The equipment in every department is used for various purposes:

- Few of the equipment is used on a day to day basis to evaluate clients with hearing, speech and language disorders.

- Few of the equipment are used to train clients with communication disorders during the rehabilitation and therapy programmes.

- Majority of the equipment are used for research purposes by faculty, staff (clinical and technical) and students.

- Log books are maintained for most of the equipment in the departments which reflects the use of such equipment.

Overall, there is no equipment which is kept idle without being put into use. On the other hand, wear and tear of the equipment is a common feature of the institute because of the increased demand for the use of equipment

3.2.6 *Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If 'yes' give details.*

The institute has received financial grants from **DST** for various research projects. The department of Speech-Language Pathology has received Level 1 grant under "FIST (Funds for improvement of Science and Technology) in the past. The

department of Electronics has received grants from **DBT** for the project titled "Design and Development of Speech Enhancer" and it has been a member in a team which worked on the project titled "Design and Development of Digital Hearing Aids" funded by **CDAC**.

3.2.7. *Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organisations. Provide details of ongoing and completed projects and grants received during the last four years.*

The faculty are encouraged to write proposals which are forwarded to the funding agencies; they are given TA/DA and OOD for presentations and are also guided in writing proposals. Details of the research projects funded by extra mural funding is provided in **Appendix 17**.

3.3. Research Facilities

3.3.1. *What are the research facilities available to the students and research scholars within the campus?*

The departments have *specialized labs with state-of-the art infrastructure for research*. The students are encouraged to conduct research and *present papers and publish articles* under the supervision of faculty. They are also *provided online access to journals* and there are *workstations in the library* made available for the students *beyond official hours*.

Junior research fellowships are available for 8 post graduate students per year, with 4 each in the discipline of Speech-Language Pathology and Audiology. Apart from this the doors of the institute are open for *part time research scholars*. The research fellows have access to all the facilities in the Library and information centre. *Each of them are provided a work station and they have access to internet, printing and photocopying*. Through the library resources they *have access to e-books, search stations and websites for free access and download*. They are *allowed to use the equipment of their choice* in a department to which their guide is placed. Since they *serve as teaching assistants to their guide*, they get opportunity to address the undergraduate and postgraduate students on topics of their research interest. Their *placement in the clinical services helps them to hone their clinical skills* and also locate the subject groups for their study.

The research fellows *participate actively in the journal clubs organized at the institute* where a peer reviewed article from a journal is presented by post graduate students under the guidance of a faculty. They also get abundant *opportunities to participate and attend workshops, conferences and seminars* that are conducted regularly by various departments of the institute. They get an *opportunity to interact with professionals of repute from within the field and across the field, both at national and international levels*. They *participate in various refresher programmes and in-house programmes* conducted by various departments of the institute. The fellows are *taught to use various software for statistical analysis of the data of research studies*.

3.3.2.   *What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?*

The institute takes *proactive steps to keep up with the advances in the field and emerging areas of research. Seminars and conferences are organized* to boost the input in the new areas of interest in which experts in the respective areas address the latest and updated issues in the field through guest lectures, invited talks etc. *Infrastructure facilities in respect of space, equipment, recruitment of staff etc is given top priority in terms of fund allocation under plan grants. The institute is recognized as Centre of Excellence for its initiative to open channels in various super specialties within the domain of Speech-Language Pathology and Sciences and Audiology and also across multidisciplinary area which are emerging areas of research.* For example, collaborative research on genetic issues in persons with autism spectrum disorders is under way. *Thirteen special clinics and twenty laboratories* of the institute spread across the departments provide plenty of opportunities for the students including the research fellows to carry out research.

3.3.3.   *Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities? If 'yes', what are the instruments/ facilities created during the last four years.*

The department of Speech-Language Pathology has received Level 1 grant under "FIST (Funds for improvement of Science

and Technology) in the past.

3.3.4. What are the research facilities made available to the students and research scholars outside the campus / other research laboratories?

The part time research scholars who are registered for Ph.D under the guidance of the faculty of the institute *can utilize the infrastructure facilities at the institute which includes equipment, printing, photocopying and internet facilities*. Few departments organize short term training programmes and in house training programmes to update the knowledge of alumni, professions from other disciplines and allied areas. The Junior research fellows are provided leave, access to laboratories and instruments and contingency grant of twenty thousand per year.

3.3.5. Provide details on the library/ information resource centre or any other facilities available specifically for the researchers?

The *Internet and other online services of the library are available 24 hours and library is open from 8.30 a.m to 8.00 p.m on all working days and from 9.00 a.m to 5 p.m on Saturdays*. The subscribed online resources include 138 E-books, 94 E-journals, 35 Online journal archives and 2 bibliographic databases pertaining to communication disorders. In addition, the library is providing full-text access to more than 1000 in-house research reports in the field. The faculty and students are using the resources frequently.

The library disseminates information regarding the latest arrivals by:

  a) Displaying the materials on new arrival section display boards,
  b) Sending E-mail and circulars regarding the recent additions, and
  c) Uploading the details of recent additions on to our web portal at www.aiish.ac.in.

These facilities are expanded in the library:

  a) Complete automation of library activities,
  b) Installation of more computers with internet facility,
  c) Expansion of reading facility.

The categories of service include:

a) Reference Service,
b) Current Awareness Service,
c) Selective Dissemination of Information Service,
d) Digital Library Service,
e) Online Public Access Catalogue Service.

The library is having both print and online archives of journals pertaining to communication disorders. These are being used by the members to a great extent.

3.3.6. *What are the collaborative research facilities developed / created by the research institutes in the college. For ex. Laboratories, library, instruments, computers, new technology etc.*

All the departments in the institute have state of the art instruments, laboratories and computer access. There is a centralized library and few departments also have department libraries. Besides this, the ***faculty who have received grants through extramural funding agencies have procured equipment*** such as tape recorders, computers, handycam, software and spares and accessories etc.

3.4. Research Publications and Awards

3.4.1. *Highlight the major research achievements of the staff and students in terms of:*

Patents obtained and filed (process and product):

The outcome of few research projects are planned to be patented. The process is still under progress.

Original research contributing to product improvement:

The material published by the institute for the benefit of the students, staff and alumni is shown in the table listed below:

Recent Publications

Annual Publications
1. Journal of AIISH (JAIISH) ISSN 0973-662X-2009
2. Students Research at AIISH Mysore (Articles Based on

Dissertations Done at AIISH)

Part A: Audiology

Part B: Speech Language Pathology

Part C: Special Education

Part D: Post Graduate Diploma Courses

Other Publications

3. CD on 'Introduction: Parent and Child' in Kannada & English 2011

4. CD on 'Training Your Child' in Kannada & English 2011

5. An Introductory Handbook for Parents on Autism Spectrum Disorders 2011

6. Train Your Child Level II: For Caregivers of Children with Hearing Impairment 2011

7. Train Your Child Level I: For Caregivers of Children with Hearing Impairment 2010

8. Instructor Manual Sensitivity Training of IERTs on Academic Problems in Primary School Children Enrolled under SSA in Karnataka 2010

9. Study Manual for Master Trainers: Academic Problems in Primary School Children Enrolled Under SSA 2010

10. Proceedings of International Symposium on Bilingual Aphasia 2010

11. Proceedings of Seminar on Auditory Dys-Synchrony 2010

12. Proceedings of Seminar on Cochlear Dead Regions 2010

13. Proceedings of the National Seminar on Paediatric Hearing Assessment and Rehabilitation 2010

14. Proceedings of the National Workshop on Speech Intelligibility (2nd ed.) 2010

15. Proceedings of the National Workshop on Voice: Assessment and Management (2nd ed.) 2010

16. Proceedings of the RCI CRE Workshop on Assessment and Management of Fluency Disorders (2nd ed.) 2010

17. Proceedings of the RCI CRE Workshop on Learning Disabilities (2nd ed.) 2010

18. Professional Voice: Assessment and Management 2010

19. 'Toy Kit' for Kids with Developmental Disabilities (2nd ed.) (Kannada & English) 2010

20. Brochure on AAC 2010

21. Brochure on Autism (Kannada, English, Tamil, Telugu, Hindi, Malayalam) 2010

22. Brochure on Toy Kit 2010

23. Informational Brochures on Activities of Department of Special Education 2010

24. ABC's of Communication Disorders 2009

25. Academic Problems in Primary School Children Enrolled under SSA Karnataka: Study Manual for Master Trainers 2009

26. DHLS Self Learning Materials 2009

27. Ethical Guidelines for Bio-Behavioural Research Involving Human Subjects (1st ed. 2004; 2nd ed. 2009)

28. Learning Disabilities: Part of Study Material for Certificate Course for Caregivers of Children with Developmental Disabilities 2009

29. Parents and Children Book 2009

30. Story Books (Hindi) 2009

Research studies or surveys benefiting the community or improving the services:

Currently a project funded under AIISH Research Fund and Plan funds of the institute and run in collaboration with an NGO is conducting process evaluation in 3 Taluks of Karnataka belonging to K.R.Pete of Mandya District; Yelandur of Chamarajanagara District and Nanjangud of Mysore District in Karnataka. The project aims to train ASHA workers and Home makers in identifying persons with communication disorders and employing them to make house to house survey in all villages belonging to these taluks. The project also aims to arrive at prevalence of communication disorders in these districts.

Many research projects conducted with ARF funds have developed clinical material. The details are enlisted in **Appendix 18**.

Research inputs contributing to new initiatives and social development:

Research initiative in various areas has contributed to the

development of laboratories that are specialized in nature. Few projects funded under ARF have also attempted to get feedback from the clients/ stakeholders (the same is listed in **Appendix 19**).

3.4.2. *Does the Institute publish or partner in publication of research journal(s)? If 'yes', indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database?*

The ***Journal of All India Institute of Speech and Hearing (JAIISH) is printed and published annually***. It is a peer reviewed journal with internal and external members in the editorial board with an Editorial chief (Director) and Assistant Editor. It has an ***ISSN Number (0973-662X)***. The terms and conditions for format of the article, copyright agreement and other issues are provided in the website of the institute too. The journal is included in 'Education Fulltext', a full-text database run by the erstwhile HW Wilson Company. Now the company is taken over by EBSCO. The articles submitted by the authors are subjected to peer review. Following this, those recommended for modification by the experts is communicated to the authors. An undertaking from the author/s is taken before its publication to guard copyright issues. As a policy, all scientific articles are subjected to plagiarism check.

3.4.3. *Give details of publications by the faculty and students:*

Publications per faculty:

The group average of publications is approximately 5.33 per faculty. The details are provided in **Appendix 20**.

Number of papers published by faculty and students in peer reviewed journals (national/international):

In the reporting years, there were 278 papers published by faculty in national and international journals and the same is attached in **Appendix 20**.

In the reporting years, there were 456 papers published in the proceedings and student research, The same is attached in **Appendix 21**.

Monographs, Chapters in Books, Books edited:

In the reporting years, there were 112 publications in the

monographs, chapters in books and books. The details of the same are provided in **Appendix 22**.

Number of publications listed in International database (for Eg. Web of Science, Scopus, Humanities International Complete, Dare Database – International Social Sciences Directory, EBSCO Host etc).

The fact to be noted is that the specialty of communication disorders which includes Speech-Language Pathology, Speech-Language Sciences and Audiology fall under the science stream. However, in comparison to other science domains such as pure sciences, the specialty is nascent and hence it has taken its time to establish itself as an independent profession in India. Initially the focus of the premiere institutions in this country has been on clinical issues and manpower development. Research has been promoted as one of the thrust areas only since 2 decades. The details of database listing and other details are provided in **Appendix 23**. The overall average h index of the institute is 7.

3.4.4. *Provide details (if any) of:*

Research awards received by the faculty

In the reporting years, there were 27 awards received for the scientific papers and the details of the same are provided in **Appendix 24.**

Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally

In the reporting years, there were 7 honors/recognition given to the faculty and the details of the same are attached in **Appendix 25**.

Incentives given to faculty for receiving state, national and international recognitions for research contributions:

The honors and awards receive by the faculty and staff is considered as one of the important criteria in Assessment Promotion Scheme for faculty.

3.5 Consultancy

3.5.1. *Give details of the systems and strategies for establishing institute-industry interface?*

a) The ***department of Electronics of the institute provides consultancy services for few areas such as Electro acoustic evaluation of hearing aids, Calibration of diagnostic instruments and Acoustic noise measurements and auditing***. It is mandatory for all industries going for certification under ISO/CE to submit a report of noise auditing/noise measurement for which the certificate / report given by the department of electronics of the institute is valid. The strategy followed for establishing institute industry interface along these lines is to create awareness among the quality managers as well as the managers of quality control departments at these industries. Awareness about these facilities is also given to quality auditors of the certifying agencies. The department has been a member in a team which worked on the project titled "Design and Development of Digital Hearing Aids" funded by CDAC.

b) The ***consultancy services provided by the department of Prevention of Communication Disorders (POCD)*** are as follows:

Sl. No.	Date	Consultancy	Beneficiaries
1.	3rd Feb. 2012	Dr. Surendran Joint Director of Factories, Department of Factories, boilers, industrial safety and health	Hearing conservation for industrial employees
2.	3rd Feb. 2012	Dr. Prashanth K.B. Occupational Health Specialist and ENT surgeon, Jindal Steel Plant, Bellary	Hearing conservation for industrial employees

c) The ***department of Speech-Language Sciences provides consultancy services for Forensic Speaker Identification***

d) The ***department of Special Education*** in the past five year has provided consultancy services to:

- caregivers of children with communication disorders for 'making educational placement decisions and planning instruction',

- caregivers of children with communication disorders for 'curricular supports', individual teachers (mainstream & special) regarding 'adaptation of instructional procedures for children with communication disorders' and In-service orientation / training programmes.

e) The staff from the ***departments of Clinical Services and Audiology offer their services as expert witnesses in Medico Legal cases***.

f) The ***institute is considered as an important nodal centre for SSA-Karnataka to train IERTs from selected schools***.

g) ***Disability certificates to persons with mental retardation is issued by the Dept. of Clinical Psychology and for the hearing impaired by the Dept. of Audiology***.

h) Between August to September 2009, ***two of the faculty were deputed to the Disabilities Studies Department, Faculty of Medicine, University of Kelaniya, PB No 6, Thalagolla Road, Ragama, Colombo, Srilanka*** to conduct :

- Curricular modification,
- workshop on curricular modification
- Conduct practical examination for the students in the final year of B.Sc. (SLT) programme.
- Deliver lectures to the students of B.Sc. (SLT) programme.

3.5.2. What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

The institute promotes consultancy services for ***noise measurement and noise auditing*** as it is in line with one of the established objective of the institute that is prevention of communication disorders. The ***available expertise is publicized through institute brochure, institute website and also through the orientation programmes and workshops organized for the concerned in these lines***.

Few of the areas where consultancy is promoted include:

a) Standards for normal speech and language production and perception
b) Tests in various Indian languages for various types of

communication disorders.

c) Database for text to speech synthesis.
d) Manuals, guides for speech and language therapy.
e) Websites where multimedia contents for client care is provided
f) Development of indigenous software
g) Low cost aids

3.5.3. *How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?*

The institute encourages the faculty and staff to share the knowledge and experience with the sister institutions and other allied areas as and when the opportunities arise and requests are received from various organizations.

3.5.4. *List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.*

The department of Electronics of the institute provides consultancy services for few areas such as calibration of audiometers, noise auditing in industries, setting up speech and hearing centers etc.

a. *Electro acoustic evaluation of hearing aids.*

Revenue generated:

Year	Amount in Rupees
2008-09	1200
2009-10	12600
2010-11	6600
2011-12	11300

b. *Calibration of diagnostic instruments*

Revenue generated:

Year	Amount in Rupees
2008-09	6000
2009-10	9000
2010-11	3000
2011-12	6000

c. Acoustic noise measurements and auditing

Revenue generated:

Year	Amount in Rupees
2008-09	42000
2009-10	27000
2010-11	10000
2011-12	10000

The department of Speech-Language Sciences provides consultancy services for Forensic Speaker Identification. In the last 5 years, 14 cases were taken up and a fee of rupees 2000 per completed case was charged to the referral sources (Police, Lokayukta court and CCB).

The department of Special Education in the past five year has provided consultancy services in the broad areas of:

a) Consultancy to caregivers of children with communication disorders for 'making educational placement decisions and planning instruction'
b) Consultancy to caregivers of children with communication disorders for 'curricular supports'
c) Consultancy to individual teachers (mainstream & special) regarding 'adaptation of instructional procedures for children with communication disorders'
d) In-service orientation / training programmes
   - 1 special school – done on demand for fee
   - 1 regular school – done on voluntary basis

3.5.5. *What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?*

The income generated is transferred to pension funds of the institute. The total revenue generated from consultancy services from 2007-08 onwards by the institute is as follows:

Sl. No.	Year	Amount in Rupees
1.	2007-08	94,719.50
2.	2008-09	48,054.00
3.	2009-10	71,565.00
4.	2010-11	1,23,138.00
5.	2011-12 (upto 31st March)	22,833.00

3.6   Extension Activities and Institutional Social Responsibility (ISR)

3.6.1.   How does the institution promote institution-neighborhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

Students and the supervising faculty and staff participate in numerous activities conducted under NSS with a socio cultural impact for the community. Students are posted in the three Outreach service centres run by the department of POCD in the following places: PHC, Akkihebbalu Village, K.R.Pete Taluk, Mandya District; PHC, Hullahalli Village, Nanjangud Taluk, Mysore District; PHC, Gumballi Village, Yelandur Taluk, Chamarajanagar District. Students participate in various speech and hearing camps conducted by the institute in various districts of Karnataka and other states of India. The students participate in new born screening programme conducted in various hospitals to screen the new born infants for communication disorders. They also participate in tele diagnosis.

The ***institute throws its doors open to the public and school children in the month of October every year*** with the intension of educating and sensitizing the target groups about the activities and facilities available at the institute, how to identify and prevent various communication disorders, whom to consult, if there is a communication disorder etc., specific to student studying in higher primary, high school and college students. Various competitions and games are arranged with suitable incentives to sensitize them to the activities of the institute and the disorders of communication due to hearing, speech and language impairment.

Ever since its inception, AIISH is committed to impart state of the art professional training, render clinical services, conduct research and educate the public on issues related to communication disorders such as hearing impairment, mental retardation, voice, fluency and phonological and language disorders. In view of educating the public, AIISH is conducting programmes like ***'Open Day', 'Science Day', 'SSA programmes' in collaboration with the Government of Karnataka, 'Monthly Public Lecture Series', 'Short Term Training Programmes', 'Public Awareness Camps' at Karnataka, Andhra Pradesh, Tamil Nadu, Kerala, Maharashtra, Lakshadweep etc.*, Publicity pamphlets are distributing before each events to gather more***

public. Also AIISH invites nursing students, Post – Graduate students, KAS, IAS probationary officers, PHC Doctors, Teachers, Anganawadi workers, Indian Aerospace Medicine and many others and provide state of the art information about the clinical services offered at the institute.

In order to prevent and identify communication disorders early, **AIISH creates awareness among the public** about the consequences of loud noise, bursting crackers, speaking loudly amidst noisy places, inserting sharp objects to the ear. AIISH celebrates **'World Disabled Day', 'World Deaf Day' and 'World Stuttering Day'** to create special awareness about the importance of communication.

Apart from organizing events and camps, **AIISH also creates awareness among the public through print and electronic media.** During events, Publicity Information Officer, AIISH takes initiative towards attracting media to provide wide publicity. Also PIO takes initiative towards publicizing more than 20 articles in a year through regional, state and national level newspapers like Deccan Herald, Times of India, The Hindu, Vijaya Karnataka, The New Indian Express, Prajavani etc. Also regional and national television broadcasters like Door Darshan, Udaya, E-TV and many more channels have broadcasted special interviews, interaction with public programmes.

3.6.2. *What is the Institutional mechanism to track students' involvement in various social movements / activities which promote citizenship roles?*

The Heads of the Departments, the NSS Officer and the Camp leader/s track the involvement of students. The best students are given incentives.

3.6.3. *How does the institution solicit stakeholder perception on the overall performance and quality of the institution?*

Feedback about its programmes is solicited from the stakeholders for all its programmes wherever possible. **Complaint boxes** are kept in salient places in the institute and any complaints received by the stakeholders are inquired by a committee nominated to look into the issue by the Director. Complaints are also routed to the **Chief Vigilance Officer** for all matters pertaining to vigilance. The applications by common man and any other section of the society under **RTI act** is attended to

promptly. There is a committee termed *'Public Grievances and Redressal Committee'* to look into complaints received from the public. Issues related to women harassment is looked into by the *"Grievances Cell for Sexual harassment of Women"*.

3.6.4. *How does the institution plan and organize its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.*

The students are posted for clinical activities at the three Outreach service centres located at the three villages (listed in 3.6.1) new born screening, school screening, industrial screening and they also participate in the tele-diagnosis and tele-rehabilitation programmes run by the Centre for Rehabilitation and Education through Distance Mode linked to the 11 DHLS centers. They also participate in NSS activities and camps. A number of programmes (sensitization programmes / community education programme & public lecture) are conducted as a regular feature for the benefit of the mass. The details are provided in **Appendix 26**. In most of the programmes, participation of students is encouraged in order to hone their skills in managing and learning rehabilitation, focus in 'out of clinic', context and also to develop their skills in counseling and guidance.

3.6.5. *How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?*

Through the **NSS of AIISH**, students participate in public education modalities such as street plays, distribution of awareness material, educating public, environment cleanliness, trekking, NSS camp, blood donation and NSS Shramadan.

In UG Programmes (other than B.S.Ed (HI) Clause 4.4 of B.Sc (Sp & Hg) regulations, 2002 ISS Scheme indicates that if a candidate represents his/ her institution/ university/ Karnataka state/ nation in Sports/ NCC/ NSS/Extension programmes or any official activities, he/ she is permitted to avail a maximum of 30 days in an academic year, based on the recommendation and prior permission of the Head of the institution. In the PG Programmes, Clause 6.5 of M.Sc.(Aud/SLP) CBCS Regulations, 2012 indicates that if a candidate represents his/ her institution in

Sports/NSS/cultural or any official activities, he/ she is permitted to avail a maximum of 15 days in a semester, based on the recommendation and prior permission of the Head of the institution.

3.6.6. *Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under-privileged and vulnerable sections of society?*

a) Social surveys, research or extension work is done by **NSS unit, AIISH**. On 5th and 11th of March 2012, a camp was organized in Mandya district, Karnataka by the NSS unit of AIISH. 15 villages were selected on a random basis for the survey purpose. A total population of 15,441 was covered in the survey by 50 volunteers of NSS unit of AIISH. These volunteers were graduates and post graduate students of the institute. A questionnaire was used in the study and initially the volunteers were familiarized with the questionnaire. Door-to-door survey was carried out for the identification of individuals at risk of communication disorders by the volunteers. High Risk Register (HRR) was used to collect information about the medical history of the individual at risk of the communication disorder, and probable cause. The information about pre, peri and post-natal history and family history, if present, was also documented for the entire pediatric population. Those found at risk were referred for a detailed evaluation.

b) A project conducted by the institute trains women **ASHA workers and home maker women volunteers** in identification of persons with communication disorders by conducting house to house surveys in villages attached to PHCs in Mandya, Mysore and Chamarajanagar district of Karnataka.

c) The **C*lient Welfare Fund*** is utilized to reimburse the travel cost or poor clients and also to provide free hearing aids for those who are found to be eligible.

d) The **Staff and Student Welfare Funds** in the AIISH Gymkhana is utilized to sanction interest free loans to staff and students under stipulation conditions.

e) The **academic section processes scholarship of students** who have been granted the same by various agencies.

f) The following facilities were provided free to the public at the *special camp* venue:

- Speech language evaluation
- Speech language therapy
- Psychological evaluation
- ENT evaluation
- Medicine distribution
- Audiological testing
- Hearing aid trial and fitting
- Issue of hearing aids
- Issue of the disability certificates
- Issues of the ear molds
- Counseling

3.6.7. Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.

Placement of the students in the community oriented programmes is done to inculcate the required skills in them to take prompt steps **to diagnose, manage and counsel the persons with communication disorders in the community set up**. This **facilitates transfer of academic skills to practice in realistic situations**. The table below provides an overview of the type of services that the students are exposed to in the outreach service centers of the POCD department when they are posted for a short tenure. The *Outreach service centres (OSCs) at* Hullahalli, Nanjangud taluk, Mysore Dt (*Initiated from* 23rd November 2009) and Akkihebbalu, KR Pete taluk, Mandya Dt.(initiated from 23rd November 2009), and Gumballi, Yelandur taluk, Chamarajnagar Dt. (initiated from 23rd July 2010) provides the following services:

- Diagnosis and management facilities for children and adults with communication disorders
- Infant and School screening programmes
- ENT consultation
- Dispensing of hearing aids
- Speech therapy and listening training
- Counselling

- Public education

Students learn various skills related to diagnosis and therapy in the community set up when they attend the speech and hearing screening camps. ***The table below shows the details of speech and hearing screening camps conducted by the institute where students along with the staff participated in the activities of the camps.***

	2009-2010		2010-2011		2011-2012		Total
	In Karna-taka	*Outside Karna-taka*	*In Karna-taka*	*Outside Karna-taka*	*In Karna-taka*	*Outside Karna-taka*	
Number of camps conducted	10	06	11	02	04	-	33
Number of clients evaluated for communication disorders	1223	1317	2140	706	841	-	6227
Number of hearing aids dispensed	570		854		151	-	1575
Number of certificates issued	289		354		34	-	677
Organizers	1) Mission Hospital, 2) District Block Offices, 3) Sanmarga Theosophical Society, 4) Rotary Club, 5) Chaitanya Charitable Trust, 6) Sri Ganapathy Sachidananda Ashram, 7) Lions Club, 8) Sri Gurumalleswara Seva Samiti, Devanuru, Mysore District Surgeon Association, 9) NSS (AIISH), 10) District In-charge Minister & Dist. Authority						

3.6.8. *How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?*

a) Based on the feedback obtained from the various sectors of the community, significant contribution in terms of ***developing workable modules for rehabilitation at the rural areas*** is developed and this has helped in ***disseminating the information and advocating similar modules in other***

centers and regions in India. *Parents of children with various disorders of communication* who attend the preschool activities are partially and totally involved *as resource persons, support personnel and activators* in various programmes scheduled from time to time by the Department of Special Education.

b) In a project titled *"Process evaluation and comparison of the modules of Outreach Service Centers as a factor of type of volunteers engaged in the activity"*, which was initially funded by ARF and later taken up as a plan activity of the institute, *ASHA workers and Homemaker volunteers* are trained *and deployed in the villages of three districts in Karnataka*. They conduct house to house survey to identify persons with communication disorders and also those who are at risk for communication disorders. These ground level workers are active in following up the clients to see that they undergo evaluation and therapeutic management.

c) The Department of POCD has also produced *public education materials* to educate the public regarding prevention and early identification of communication disorders. These include checklists, pamphlets, posters, booklets and Audio video CDs. The material developed initially in English is translated to Kannada, Telugu, Tamil, Malayalam and Hindi languages.

d) The Department of Material Development has also produced *print and audio visual materials* in English and Kannada.

e) The Department of Special Education has developed *'LiBoToy',* an innovative compilation of teaching, learning, evaluation and models for student teaching.

f) The Department of CREDM launched a *website* on 05.01.2009. So far, 68 orientation programmes have been conducted. *Tele assessment and tele intervention* was initiated in 11 DHLS study centers from 15.3.2010. Persons with various communication disorders and their parents/caregivers are provided diagnostic and intervention services through videoconference mode. To support the programme, resource materials (print mode & e-mode) are also developed.

3.6.9. *Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.*

The POCD Department conducts the following programmes on a regular basis:

a) Screening new born infants
b) Screening schools children
c) Screening public in the camps
d) Screening industrial workers for noise induced hearing loss

The institute has entered into an MOU with the NGO, Karuna Trust in Mysore to train ASHA workers and deploy them in the villages to conduct house to house survey to identify persons with communication disorders

3.6.10. *Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.*

Nil

3.7 Collaboration

3.7.1. *How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives - collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.*

Collaboration is established for ***Fullbright Scholar exchange programme at the international level*** and at the ***national level research projects*** are taken up ***in collaboration with Genetic Laboratories, MAHE, Manipal, NIMHANS, Bangalore and with faculty from universities in USA. Collaboration for research is established with the countries of UK, USA, Japan, Norway, Canada and Malaysia***.

3.7.2. *Provide details on the MoUs/collaborative arrangements (if any) with institutions of national importance/other universities/ industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.*

MOUs and collaborative arrangements are made with MAHE, Manipal, NIMHANS, Bangalore and all hearing aid industries for HAD Scheme.

The institute has entered into an MOU with:

a) The NGO, Karuna Trust in Mysore to train ASHA workers and deploy them in the villages to conduct house to house survey to identify persons with communication disorders.
b) Eleven Medical and teaching hospitals across the country where 11 study centres are established to conduct the DHLS programme.

c) The concerned section of the Ministry of Health and Family Welfare of Karnataka State to conduct the clinical programmes in the three outreach service centers of Akkihebbalu, Hullahalli and Gumballi.

A joint endeavor of the institute and the Ministry of Health and Family Welfare, Govt. of India is carried out to promote placement of Speech-Language Pathologists and Audiologists in district hospitals under the *National Programme on Prevention and Control of Deafness (NPPCD)*.

All these endeavors has helped in :

a) Bringing up the institution at national and international level
b) Enhancing research
c) Providing better services to persons with communication disorders.

3.7.3   *Give details (if any) on the industry-institution-community interactions that have contributed to the establishment / creation/up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories / library/ new technology /placement services etc.*

The institute has **interaction with BSNL to provide terrestrial link for latest technology in video conferencing** for the purpose of conduction of workshops, seminars and academic programmes.

3.7.4.   *Highlighting the names of eminent scientists/participants who contributed to the events, provide details of national and international conferences organized by the college during the last four years.*

A total number of 133 national and international seminars/conferences were conducted by the institute for the past 5 years and the details are provided in **Appendix 9.**

3.7.5. *How many of the linkages/collaborations have actually resulted in formal MoUs and agreements? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated:*

a) *Curriculum development/enrichment:*

- Digital library access is provided to the DHLS centres.

- Earmould laboratories were established through videoconferencing.

b) *Internship/ On-the-job training:*

Internship training for undergraduate students of the institute:

As part of Internship programme, the following number of students were / are trained from the years 2009-10 to the current batch. They are placed in various centres across the country.

Year	No. of students
2009-10	38
2010-11	39
2011-12	46
2012-13	61

Objectives of Internship training are to:

a) Facilitate the transition of training from supervised to independent responsibility
b) Prove additional inputs to attain and maintain competence in clinical management of persons with communicative impairments
c) Initiate group and individual action focusing on prevention/early identification and intervention in individuals with speech, hearing and language impairments at the level of the individual\family and community
d) Facilitate the understanding of professional responsibilities and ethical practices including:

- Rights and dignity of clients
- Consultation and referral to other professionals.
- Conduct and professional obligations to peers/clients/families and the community at large.

To fulfill the above objectives, students are posted at various NPPCD and DHLS centers across the country during their internship programme. The intention of posting the students is to provide clinical services at the NPPCD and DHLS centers.

Following is the details of the centers that were chosen for internship from the years 2009-10 to 2012-13:

States	Centres/ Hospitals			
	2009-10	2010-11	2011-12	2012-2013
Karnataka	Mandya Hubli Hassan	Gulbarga Bidar Chikmaglur	Gulbarga Udupi Chikmaglur Hubli Chamarajnagar Mandya	Gulbarga Udupi Chikmaglur Hubli Dharwad Mandya Tumkur Bijapur Kolar Haveri
Puducherry	Puducherry	Puducherry	Puducherry	Puducherry
Orissa	Cuttack	-	Cuttack	Cuttack
Uttar Pradesh	Lucknow	Lucknow	Lucknow	Lucknow
Mandhya Pradesh	Jabalpur	Jabalpur	Jabalpur	Jabalpur
Jharkhand	Ranchi	-	Ranchi	Ranchi
Rajasthan	Ajmer	Ajmer	Ajmer	Ajmer
Assam	Guwahati	Kamrup	Guwahati	-
Manipur	Imphal	Imphal	Imphal	-
Uttarakhand	Haridwar	Haridwar	-	-
Himachal Pradesh	-	Shimla	-	-

During internship, the students provide clinical services in the area of communication disorder under minimum supervision. They also take part in conducting camps, public

education and orientation programmes on prevention, early identification and management of communication disorders.

Internship to M.Tech. students :
Internship is provided to M.Tech. students from the following institutes / Universities by the Department of Electronics

- Manipal Institute of Technology
- VIT University, Vellore
- Visweshwaraiah Technological University, Belgaum
- University of Mysore

On the job training to technicians of Hearing Aid Dispensing Centres:
On the job training is provided to technicians working at hearing aid dispensing centres in the field of hearing aid maintenance and repairs.

Research Training Fellowship:
Under the Research Training Fellowship for developing country for scientists, (RTFDCS) Dr. Mobio N'Kan Max Ange, an ENT specialist was posted in the Department of ENT at the institute for 10 months training and research starting from 2.11.2011.

Details of short term training programmes are provided in **Appendix 14.**

c) *Summer placement*

Nil

d) *Faculty exchange and professional development:*

Sl. No.	Title of the project	Principal investigator	Co-Investigator/s	Funding agency	Funding in Rupees	Status (Completed / Ongoing)
1.	A study of motor control in persons with mild & severe stuttering under conditions of motor stress	Manjula R.	Venkatagiri, H.	AIISH, Mysore	6,02,000 +92,000	Report to be submitted

2.	Development & evaluation of curriculum for Speech-language transcription	Prema, K.S.	Peri Bhaskara Rao	AIISH, Mysore	2,77,200	Completed
3.	Effects of semantic & syntactic treatments in bilingual stroke survivors	Rangamani, G.N. & Prema, K.S.	-	AIISH, Mysore	4,94,000	Ongoing
4.	Voice Analysis of Vocal Performers in India	Savithri, S. R.	Nandu Radha-krishnan	AIISH, Mysore	6,25,000	Completed
5.	An Articulatory study of Kannada consonants: Co-articulation and speech errors	Sreedevi, N. & Alexei Kochetov	Manjula, R.	AIISH, Mysore	3,15,000	Ongoing

e) *Research:*

A total of 58 collaborative research projects were undertaken by the faculty of the institute in the reporting years. Details are provided in **Appendix-15**.

f) *Consultancy:*

Consultancy services are provided by the departments of Electronics, Speech-Language Sciences and others and the details are provided under Sl. No. 3.5.4.

g) *Extension:*

The institute has collaboration with the concerned section of the Ministry of Health and Family Welfare of Karnataka State to conduct the clinical programmes in the three outreach service centers of Akkihebbalu, Hullahalli and Gumballi.

h) *Publication:*

There was a total of 855 publications in the reporting years. The details are provided in **Appendices 20, 21 & 22**.

i) *Student Placement:*

Students are placed with the help of placement cell.

j) Twinning programmes:

Nil

k) Introduction of new courses:

Three PG Diploma programmes 1) Post Graduate Diploma Programs in Forensic Speech Science Technology, 2) Post Graduate Diploma in Neuro Audiology, 3) Post Graduate Diploma in Clinical Linguistics and M.S.Ed (HI).

l) Student exchange:

Shuveykar Solin, student from Maldives was enrolled in B.Sc. (Sp&Hg) under student exchange under WHO Fellowship.

m) Any other:

The institute has introduced the ***Hearing Aid Dispensing Scheme (HADS)*** in the year 2006. The scheme was launched to facilitate the clients with hearing impairment to procure hearing aids at subsidized cost without having to undergo hardship of going to the authorized dealers and negotiating on the prices. Under this scheme the hearing aids are dispensed to the clients at the dealers' price with an additional overhead cost of 5%. The overhead cost would take care of the cost involved in procuring the hearing aid and also towards after sale services offered at the institute. The scheme ensures that the quality of the hearing aid dispensed is as per specifications. 6053 hearing aids have been dispensed to the clients under HADS since the inception of the scheme.

MOUs with hearing aid companies:

Ten hearing aid companies have entered in to Memorandum of understanding (MOU) with the institute as the core of the HADS. Both the institute and the haring aid companies have to abide by the several terms and conditions laid down in order to provide rehabilitative services for the clients. The following companies have signed the above mentioned MOU:

M/s. Arphi Electronics Pvt. Ltd., 2/5, Sivagnanam Road, Pondy Bazar, T. Nagar, Chennai – 600 017	Alps International Pvt Ltd Ashirwad Complex, D-1, Green Park, New Delhi- 110 016 Ph: No. 26863359, 26851361
Hearing Aid Centre (M/s. Bernafon) # 152-3rd floor, 18th Main, 1st Cross, 2nd Stage, Near Domlur Flyover, Indira Nagar, 100 Ft Road, Bangalore.	Starkey Laboratories India Pvt Ltd, C-2, SECTOR-7, Noida Uttar Pradesh

M/s. Otic Hearing Solutions
Pvt.Ltd,
Sai Sangam, Office No. # 706/707
7th Floor, Plot No. 85,
Sector 15, CBD Belapur,
Navi Mumbai – 400 614

M/s Elkon Pvt. Ltd.,
904, Majestic Chambers
Majestic Shopping Centre
144, Girguam Road,
Mumbai – 400 004
Fax No. 080-41153366

M/s. Phonak India Pvt Ltd,
30, 2nd Floor,
Castle Street, Ashok Nagar,
Bangalore – 560 025
Ph : 080 41127074

M/s. Audifon Hearing Systems
Global Care
#706, "Saffron", Opp. Central Mall,
Ambawadi, Ahmedabad - 380 006,
Gujarat
Fax no. 07926468640

M/s. Sintron Electronics Pvt. Ltd,
Sintron Square, First Floor,
I – 9, Dr. VSI Estate,
Thiruvanmiyur,
Chennai – 600 041
044 - 22542462

M/s. HAC Acoustic Technologies
(Hansaton)
TF4, Lokesh Towers, #18,
Kodambakkam High Road,
Chennai- 34.

3.7.6. *Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/collaborations.*

a) Meetings on Research:

Periodic meetings are held by the PI's and Co-PI's to review the progress of funded research projects. Departmental meeting held in order to submit 'Expression of interest to study the outcome of inclusive education' to Sarva Shiksha Abhiyan (SSA) that is also geared towards National Literacy Mission. The departmental staff participate in regional, national meetings to offer consultancy for research to design better classroom assessment and special educational strategies for CWSN. Scientific papers are also presented at the regional, national and international forum.

b) External linkages:

The faculty and staff of the department participate in programmes as resource members, nominated members, and representatives on Academic Boards of the Universities, Planning Boards of sister institutions focused towards educational empowerment of Persons with special needs, Consultants at the National level (NIMH, RCI, PHFI, IGNOU and NGO's) in addition to offering

orientation and guidance to medical, dental specialists, administrators and policy makers in the educational sector (BEO's and IERT's). Besides these, the institute has established a MOU with two special schools in Mysore city for adoption in order to offer service for CWSN enrolled.

In addition, Guest lectures are organized by inviting resource persons from within and outside the country.

Any other relevant information regarding Research, Consultancy and Extension which the college would like to include.

Itinerant Speech-Language Pathologist and Social Worker :

A Itinerant Speech-Language pathologist and social worker are recruited in the Dept. of Clinical Services to mediate and coordinate the following activities:

Roles and responsibilities of Itinerant Speech-Language pathologist and social worker include:

- Coordinating the disbursement of client welfare fund for various aids and appliances for persons with communication disorders.
- Interact with persons with communication disorders and their families to cope with issues in their everyday lives, deal with their relationships, and solve personal and family problems.
- Look into the social problem, such as inadequate housing, unemployment, or substance abuse in and around Mysore, Karnataka and India
- Assist families that have serious domestic conflicts, sometimes involving child or spousal abuse.
- Liaison between different professionals providing clinical services.
- Create awareness in public and professional about the clinical services, facilities available for persons with communication disorders such as disability certificate, concessional facilities provided by all the states
- Educate the public how to avail these facilities.
- Visit schools, families, hospital, orphan age home, and other places
- Help people cope with job-related pressures or with personal problems that affect the quality of their work.
- Maintain Statistical data in the clinic.
- Supervise maintenance of hygiene in and around the around Institute

- Arranging and coordinating camps.
- Handle Legal and ethical issues related to persons with communication disorders.
- Compliance with citizen's charter.
- Liaison between different funding agencies to raise funds for assistive devices and other expenses for persons with communication disorders
- Prepare summary reports and discharge reports of persons with communication disorders
- Issue certificates such attendance certificate, language exemption, preferential postings etc.

Extension activities in Department of Clinical Psychology :

Various extension activities are carried out by the Department of Clinical Psychology which includes:

1. Guiding regular school managements, principals and/or proxy
   representatives on referral of school children with academic problems, learning disabilities, communication disorders carried out with (a) St. Pauls High School, Mysore; (b) St. Josephs (Central/State), Mysore; (c) Bharatiya Vidya Bhavan, Mysore; (d) Kendriya Vidyalaya, Siddarthanagar, Mysore; (e) Vijay Vittala, Mysore; (f) Orchids Public School, Mysore; (g) Acharya Vidya Kula, Mysore; (h) De Paul International School, Mysore; (i) Coorg Public School, Coorg; (j) Carmel English School, Nanjangud;   (k) Alpha National School, Mysore. Activities included resource teacher orientation for referral and school based follow up of affected children.

2. Guiding NGOs and parent self help groups on institution and home based management of affected children with communication disorders, their caregivers and family members. Some organizations addressed include PAMENCAP, Mysore, Sneha Kiran Spastics Society, Mysore; Swasahaya Samuchaya, Mysore, etc.

Faculty as Guide and Co-guide for external doctoral candidates:

Few faculty have served as Guides and co Guides for doctoral candidates registered from:

1. Padmavathi Mahila University, Tirupathi.
2. National Institute of Information Technology, Tiruchirapally