

# **ANNUAL REPORT**

2008-2009

SPACE

## Introduction

SPACE completed the second phase of its programme 'Capacity Building in FOSS and ICT for Equitable Development in Kerala' amidst heightened activities in ICT for Development sector and growing fears in the IT industrial sector in Kerala about the unfolding economic downturn. SPACE's working relationship with the Government continued to be strong and it gave SPACE a decisive role in the planning and execution of many state initiatives such as Malayalam Computing Campaign, Insight Project for the differently abled and Village Documentation and Computing Centre (VDCC). SPACE was invited to work on Aasthi, an inventory management system for the government.

The year also generated a lot of publicity for Free and Open Source Software (FOSS). The International Conference organised by SPACE and Kerala State IT Mission (KSITM) revived media attention in FOSS. The experience of working with Kerala State Electricity Board (KSEB) and Kerala Khadi and Village Industries Board also created examples of using free software in public enterprises. The migration to free software in the IT@School programme was also completed in 2008. There is increased awareness of free software, especially in public enterprises, educational institutions and civil society institutions. There is increased visibility and recognition of SPACE and its activities. This also positions SPACE in direct competition with other institutions involved in IT promotion in the state.

The political climate became charged when the ruling party formed a wing of free software proponents. It sought to create new power equations and polarise opinion on FOSS in the state. SPACE was occasionally caught in the crossfire. Despite this, SPACE was able to forge ahead, on the strength of its unique technical expertise and capacity for innovation in ICT and FOSS.

Arun M, Coordinator of SPACE since its inception, joined KSITM as Special Officer in July 2008. For three months, the activities of SPACE were managed by a Coordination Committee drawn from senior staff of SPACE. R.V Jayapadma joined SPACE as Coordinator in November 2008. Nine new staff joined SPACE this year to work on its various projects. Four of the new team members are women, which includes the current Coordinator of SPACE, two programmers and content editor of the audio magazine for the visually challenged.

# Capacity Building in ICT and FOSS for Equitable Development in Kerala

## Components

1. Advocacy
2. Micro enterprise development
3. FOSS based human resource development
4. New media initiatives
5. Gender research and intervention.

## 1. Advocacy

### 1.1 International Conference on FOSS

SPACE and KSITM organised the International Conference on Freedom in Computing, Development and Culture at the state capital Thiruvananthapuram between December 9-11, 2008. 40 speakers from across the globe addressed the conference on the three tracks: technology, culture and policy. Over 400 delegates participated in the conference. Workshops, exhibitions and free software installation services were also conducted in course of the conference.



*The Chief Minister of Kerala Mr V S Achuthananthan lights the ceremonial lamp to mark the beginning of the FOSS conference*

## **1.2 FOSS Development Centre**

The Government of Kerala announced the setting up of an International Centre for Free and Open Source Software (ICFOSS) during the international conference on FOSS. This was the result of advocacy efforts by SPACE. The proposed centre would look into software development and into issues such as patents, copyright, digital content and scientific publishing. It would provide leadership in identifying FOSS technologies for different applications for the government, public enterprises, educational institutions, small business, individuals and other key sectors. It would provide consultancy for all government departments in the state for IT-related activities, besides creating a level- playing field for all software acquisition and development.

## **1.3 Advocacy among Civil Society and NGOs**

SPACE's advocacy with Non Government Organisations (NGOs) aimed at two aspects: migration to FOSS and adoption of ICT. With FOSS being successfully implemented at ACCORD, an organisation based in Gudalur, we were able to showcase the model at SOMA, our project partner and Technical Support Unit of Kerala State AIDS Control Society and Sakhi, a leading women's organisation. The computer lab of Rajagiri College of Social Sciences was moved to free software platform during the year. SPACE conducted a demonstration workshop on FOSS and ICT at Cultural Academy for Peace (CAP) an organisation which intervenes on legal issues of women.

ACCORD which moved to FOSS in 2007, became its strong votary. It partners with SPACE for mobilising opinion among Civil Society Organisations (CSOs) regarding FOSS. It published its experience in migrating to free software on the website of Gudullar Users of Swathanthra Software (<http://guss.web4all.in/?p=14>). It is in dialogue with SPACE for building a free software based accounting package. SOMA moved to FOSS in December 2008. Sakhi made the commitment to adopt FOSS in a phased manner.

For ICT adoption SPACE was able to leverage its partnership with the Rajagiri College of Social Sciences by reaching out to CSOs/NGOs associated with Rajagiri. We were able to reach out to more NGOs through two nodal agencies - the Indian Council of Social Welfare (ICSW) and North Malabar NGO network which is an association of 10 organisations in Kannur and Wayanad. Workshops were organised with the support of these agencies for organisations such as Mass, Kairos, COD, PCDP, Women's Welfare Association, Matha Charitable Trust, Sreyas, Wayanad Social Service Society and Tellicherry Social Service Society.

SPACE conducted website development training for Mythri Vanitha Sangam, a collective of sex workers in Thiruvananthapuram working on HIV/AIDS and for Sakhi, a woman's organisation in Thiruvananthapuram. While the former has put on hold its web development activities due to resource constraints, Sakhi has made a commitment to building a dynamic website. Farm Broadcasting Trust, an organisation based in Ernakulam produces videos and documentaries on farming practices in India. SPACE helped it to build a concept of a portal on farming. The challenge or opportunity which it foresees is in making it an income generating model.

Green Energy Trust is an organisation supported by environment activists in Kerala. With the support of SPACE it built *Urjasamrakshanam*, a Malayalam portal on energy conservation (<http://urjasamrakshanam.org/>). It was launched on 30 October 2008 by Dr.N.S Ramaswamy,

Founder-Director, IIM Bangalore. The portal aims to raise awareness on energy concepts, sources and need for conservation among students. The portal offers them support to develop projects on energy and water conservation.

SPACE supported Kerala Sasthra Sahithya Parishad (KSSP), to build its web portal (<http://kssp.in/>). KSSP is a people's science movement started in 1962 with more than 2000 units spread all over Kerala. A one-day web development workshop was held for members of KSSP on web development on 23 November 2008.

Mediaact, an organisation that promotes media awareness developed a portal for Balasabha, the children's unit of Kudumbashree in collaboration with SPACE. SPACE trained project members on how to add content to the website.

#### ***1.4 Participation in national and regional level ICT events***

National Conference on Free Software: The National Conference was organised by Cochin University of Science and Technology from 15-16 November 2008 at Ernakulam. SPACE was part of a panel on Free Software Business Models where it presented the FOSS solution for the visually challenged addressed by Insight project and web development opportunities for Akshaya entrepreneurs on web4all platform. SPACE also provided technical inputs in a session on Wikis.

National Public Meeting on Software Patents: The meeting was held at Bangalore in October 2008 in the wake of the cancellation of a public consultation by the Patent Office on the Draft Patent Manual. Various issues surrounding software patents were discussed at the meeting.

National Conference on Best Practices in IT Enabled Teachers Education and Knowledge Management: SPACE spoke on its Insight Project, which offers FOSS based inexpensive solutions for ICT learning of the visually challenge at the conference organised by University of Kerala and Kerala State IT Mission (KSITM) at Trivandrum in October 2008.

**Table 1 Summary of FOSS promotion events of SPACE 2008-09**

	<b>Topic</b>	<b>Events</b>	<b>Date</b>	<b>Partners</b>
1.	FOSS Meet@NITC	FOSS training for school students and teachers in Malappuram. Discussion on "how to improve School GNU/Linux distribution".	6 April 2008	National Institute of Technology, Calicut
2.	FOSS cell	Basic GNU/Linux installation troubleshooting and networking workshop for students at Wayanad.	7 April 2008	Free Software Cell
3.	Software Freedom Day	Seminar on FOSS in governance and session on how to build a basic shell for students.	20 September 2008	SPACE
4.	Freedom Walk	A walk through all districts of the state, by FOSS activists Anoop John, Cherry George Mathew, Prasad S. R. and Sooraj K to spread the word of freedom in computing.	2 October-14 November 2008	Zyxware, SPACE, FSF India, GNU/Linux Users Group, Ascent Engineers, SMC, fsug, Calicut
5.	Blender Awareness Workshop	Workshop on FOSS animation tool, Blender for multimedia students and young artists	17 October 2008	Young Men's Christian Association
6.	Course on Operating Systems	Course for computer science teachers in polytechnic colleges on basic aspects of operating system and coding at Central Polytechnic College, Vattiyoorkavu, Trivandrum	10-14 November 2008	Polytechnic Colleges
7.	Innovative Technology Exhibition	Exhibition on Insight, Malayalam Computing, Swaram and IP phone	28-30 November 2008	Institution of Engineers
8.	Insignia 3.0 Hackerdom	Seminars and exhibition at Government Engineering College, Thrissur	9-11 January 2009	Department of Computer Science

	<b>Topic</b>	<b>Events</b>	<b>Date</b>	<b>Partners</b>
9.	FOSS awareness workshop	Workshop for employees of Khadi Board, which moved to FOSS in 2008	13 January 2009	Village Industries and Khadi Board
10.	Workshop on Koha	Training in Koha, an open source integrated library management system for 42 librarians in the state.	14-16 February 2009	Kerala Library Association, Christ Nagar School
11.	Linux Installation Workshop	Workshop for women computer science students	14 March 2009	LBS Institute of Technology for Women, Trivandrum.
12.	Gnu/ Linux workshop	Workshop for Engineering College teachers at NSS College, Palakkad	17-21 November 2008	NSS College, Palakkad
13.	Workshop on Free Software	Workshop for Plus two students	4 February 2009	Govt. VHSS Vattiyoorkavu
14.	ICT workshop	The workshop was conducted at Ernakulam for heads of Polytechnic Colleges.	20-21 February 2009	Polytechnic

## **1.5 Regional Centre**

SPACE had a set back when its regional partner SOMS scaled down its activities, a few months into the partnership. This temporarily affected activities in the Regional Centre in Ernakulam. However, SPACE was able to revive its work through a partnership with Rajagiri College of Social Sciences. A Memorandum of Understanding was signed with Rajagiri College of Social Sciences for two years to collaborate in the areas of social research and capacity building of civil society organisations and students in ICT. The Ernakulam Regional Office of SPACE functions on Rajagiri College campus. The two organisations have already jointly organised workshops for North Malabar NGO network and Indian Council of Social Welfare on Free Software and Free Software based web development.

## **2. Micro enterprise Development**

### **2.1 Developing Kudumbashree IT unit**

SPACE supported Technoworld the Kudumbashree IT unit in Trivandrum, to successfully undertake the digitisation of the Malayalam Encyclopaedia. The unit has completed the digitisation of over 3 volumes. SPACE provided technical guidance and support for using free software in the digitization process.

## **2.2 Web development training for Akshaya entrepreneurs**

A tutorial for web development in Malayalam was developed and published online by SPACE at [tutorial.web4all.in](http://tutorial.web4all.in).

A meeting of Akshaya entrepreneurs was called at Kannur on 20 October 2008 to introduce web4all and how to build a business model of it. SPACE proposed to train entrepreneurs and handhold the first project. A similar meeting was organised with entrepreneurs at Malappuram on 21 October 2008. The 20 entrepreneurs who attended the meeting were enthusiastic about the proposals. 9 women community facilitators were given training in web development at Akshaya Project Office at Kannur from August 9-10.

A second round of training in web4all was conducted for Akshaya entrepreneurs at Malappuram on 26 and 27 November 2008. 32 entrepreneurs representing 15 centres attended the basic training on developing websites with content management systems. Compared to Kannur, the entrepreneurs at Malappuram were keen on having advanced training in website development.

SPACE's work with kudumbashree's IT units has been limited primarily because of lack of interest and involvement of concerned officers. SPACE has continued to engage with Akshaya centres primarily through the Malayalam Computing Campaign in the districts of Kannur, Malappuram, Kollam, Pathanamthitta and Kozhikode. These have been through training in Malayalam Computing, local content development, website development. However, there has so far been limited interest from Akshaya officials in developing entrepreneurship plans.

## **3. FOSS Human Resource Development**

### **3.1 ICT Training**

A two day ICT training was conducted for 11 students of S.N Women's College at Kannur on August 23-24, 2008. The students were introduced to various Internet tools.

Students of Government VHSS, Manja, Thiruvananthapuram were trained in FOSS and ICT tools. The first batch of 14 students were trained on October 24-25, 2008 and the second batch of 14 students were trained on November 8-9, 2008. ICT training was held for Plus two students of Government Vocational Higher Secondary School on 4 February 2009. 60 students including 28 girls participated in the training.

SPACE also initiated an ICT/FOSS campaign at St. Xavier's College, Thumba. The college which has a mix of rural and urban students in Thiruvananthapuram, has limited ICT infrastructure. Our survey among the students had shown that use of Internet is very low. The campaign will provide basic ICT skills to the students undergoing graduate courses.



## **4. ICT and Media**

### **4.1 ICT workshops**

ICT workshops were organised for students, teachers and organisations with a view to creating a volunteer base for community media (Refer Table 2). SPACE began to standardise its training programmes using its training module.

Partnership with Rajagiri College opened an opportunity for reaching out to students on a large scale. Different batches of students of Rajagiri College were trained in the use of email, applications for online document sharing, social book marking, uploading photographs and videos and in blogging. The second target group during the year was media students. SPACE held workshops at the Trivandrum Press Club for students of journalism on community media and Malayalam computing.

The decision of IT@School, the project for ICT enabled education in Kerala, to have websites for each school in the state, has made it mandatory for teachers to acquire website management skills. This is expected to increase usage and contribution of online content by teachers and students. SPACE trained Master Trainers of IT@School in website development and in content generation for IT enabled education.

Teachers of Irimpanam School (See *School turns Free Software evangelist*), Government School teachers of Attingal, Trivandrum and Women's ITI Colleges received training in web development. Women's ITI College, Thottada, Kannur approached SPACE for organising a workshop on web development for its teachers to enable the college to build its own website.

### **4.2 Setting up of portals**

12 portals were set by organisations and schools in the reporting period which makes a total of 33 portals set up with the support of SPACE since the beginning of the project. SPACE supported Election Watch Kerala (EWK) a civil society initiative which aims to help voters have a better understanding of candidates by disseminating affidavits and informs the public about the election process, voter rights etc. SPACE worked as the coordination office and provided technical support to EWK to build its portal ([www.electionwatchkerala.org](http://www.electionwatchkerala.org)), as well as provide support for data entry and analysis ahead of the April 2009 Lok Sabha elections.

SPACE set up a Malayalam portal ([balasabha.org](http://balasabha.org)) for Balasabha, the neighbourhood group of children below poverty line and the children's unit of Kudumbashree. SPACE trained Mediact, the Kudumbashree training partner in content management. The other organisations/institutions which set up portals are:

- Irimpanam Vocational Higher Secondary School, Ernakulam
- Palace School, Ernakulam.
- Hidayathul Islam Higher Secondary School, Edavanakad
- Govt. Girls Higher Secondary School, Kottappady, Malappuram
- DIS Girls Higher Secondary School, Kannur
- Govt Girls Higher Secondary School, Attingal
- G V Higher Secondary School, Attingal

- Open Frame, Payyannur
- Green Energy Trust

### School turns Free Software evangelist



Tucked away in the little village of Irimpanam, 3 km away from Thripunithura, the headquarters of the erstwhile Cochin royal family, a school is championing the cause of freedom in computing.



Vocational Higher Secondary School (VHSS) Irimpanam is in many respects, the regular Malayalam medium school in the state. But this unassuming school is fast

becoming a free software knowledge hub for schools in Kerala.

VHSS made history a year ago with a few other schools when it set up a website. This was long before there was an official decision to introduce websites for schools. It was at one of the workshops organised by SPACE that the VHSS teachers learnt how to set up a website. Till today vhsririmpanam.org is one of the well maintained sites of schools in Kerala. So rare was the feat that the school was invited to present its website at the National Conference on Free Software held at Ernakulam in November 2008.

Although the teachers had been using free software for several years, web development using Wordpress, the free software content management system brought them closer home to lesser known facts about freedoms in computing. They began organising workshops for students and teachers on FOSS and new media. The school launched an initiative called *Swathanthra Software Kuttaima* (Free Software Community) for FOSS awareness among students. It networks with Indian Libre Users Group Kochi (Ilug Kochi) for conducting training programmes.

**Table 2 Summary of training programmes 2008-09**

	<b>Trainees</b>	<b>Date</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
1	Members of Tirurangadi Young Men's Library	13-14 April 2008	11	0	11
2	Teachers of Irimpanam VHSS, Ernakulam	30-31 May 2008	5	2	7
3	Members of Open Frame, Payyannur	14-15 June 2008	23	2	25
4	Students of Social Work Department, Sankara University	21 June 2008	7	8	15
5	BSW students of Social Work Dept, Rajagiri College of Social Sciences	30 June- 1 July 2008	10	25	35
6	Government School teachers, Attingal	14 July 2008	8	2	10
7	3 <sup>rd</sup> Semester MSW students, Rajagiri College of Social Sciences	30 November - 1 December 2008	14	20	34
8	Rajagiri College of Social Sciences	18-19 February 2009	15	13	28
9	Polytechnics Teachers	20 February 2009	10	7	17
10	Students of Little Flower Institute of Social Sciences and Health (LISSAH) College, Kozhikode	10-11 March 2009	14	20	34
11	Master Trainers and Master Trainer Coordinators of IT@School	16-17 March 2009	19	2	21
		<b>Total</b>	<b>136</b>	<b>101</b>	<b>237</b>

### 4.3 Community portal-Ila

SPACE set up a community media portal in Malayalam *Ila* to spearhead the community media drive in Kerala. Ila is built around the news and views of the Malayalee. Ila has two functions. One is to pool existing online Malayalam content that seriously address themselves to socio-political issues. Second is to promote generation of quality Malayalam content from a wider audience.



The home page of Ila

An Editorial Team and an Advisory Committee of noted media personalities were constituted. An editorial policy was developed and the key features of the portal were finalised in consultation with them. SPACE partners with Mediact, an organisation that promotes media literacy for implementing this project. Ila was pre launched on 8 November 2008 at Trivandrum.

Ila features news and information categorised under arts, gender, governance, health, media, politics, science/technology, cinema, development and environment. Currently it pools articles from 15 Malayalam blogs and also hosts featured articles.

To build a volunteer base, SPACE conducted lecture-demonstration of Ila at Kozhikode on 25 January 2009. Dr. Mahesh Mangalath, Malayalam Faculty of Mahatma Gandhi Government Arts College, Mahe gave an introduction on New Media. A similar session was also held at Press Club, Thiruvananthapuram on Feb 9, 2009.

### 4.4 Ente Gramam-The Village Community Portal

9 women community facilitators of Ente Gramam portal were given training in web development at Akshaya Project Office at Kannur in August 2009. Ente Gramam, which began as a pilot project of SPACE in 11 local bodies in Kannur will be extended to all panchayats in Kannur and selected panchayats in Kollam and Malappuram districts with the support of Kerala State IT Mission.

More services like advertisement options for local advertisers, matrimonial have been added to the Ente Gramam portal. SPACE will conduct an evaluation of the Ente Gramam project before it is rolled out to other areas.

## **5. ICT and Gender**

Gender as a component was introduced by SPACE to embed gender consciousness in its own programmes and to actively strive for gender inclusion in the ICT initiatives of the state. It undertook two studies in the reporting year to assess how women fare with regard to ICT in Kerala.

### **5.1 Study among students on awareness and use of ICT**

The study was conducted among students of arts and science colleges in Kerala to understand the level of awareness and use of ICT among girls. It was conducted in five districts of Kerala with 200 samples. The initial analysis shows that computers and the Internet are worlds apart for girls. While over 90% of the girls have earned computer literacy through formal training, only 23% of the girls have ever used the Internet alone. 38% of the girls had never used the Internet even by proxy.

In comparison only 58% boys have been trained in computers but 72% use the Internet and mostly by themselves. Girls browsed the Internet mostly to check examination results published by universities and to collect information for their class assignments. But this was most often a group activity, where one of the girls who would collect the information. The boys also used the Internet for information but they spent more time than girls for emails, orkut, online games, etc.

Access was also different for boys and girls. Most of the boys used Internet at cafes, followed only by computer centres at the college. But the girls were strongly dissuaded from visiting Internet cafes. Many of the girls were uncomfortable about going to cafes not only because it was forbidden by their parents but also because they felt ill at ease within the peculiar settings of the cafes. So the only place of access for them was either college or friend's house. Only a few colleges provide access to students for limited hours of a day.

### **5.2 Study on the impact of IT@ School**

SPACE which was closely involved with IT@School project from its formative years was attracted by the high level of enthusiasm and involvement shown by women teachers to study the gender dynamics of the project. The study looks into the changes that the project brought in the women teachers and the challenges they face.

Interviews and group discussions were held with 22 teachers who are involved in the project. The teachers are in the age group of 30-50 years. Discussions were also held with the project leadership.

Although the project was not designed with a gender perspective, it ended up benefitting a large number of women teachers, who would otherwise not have been exposed to ICT. In fact women teachers became the strong pillars of the project not only in terms of their representation in the project as School IT Coordinators, but as dedicated team members. But they face a lot of challenges being women-such as not being able to strike a balance between the demands of work and home, erosion of privacy and mobility issues. The study points to the importance of a gender sensitive policy in the design of ICT programmes.

The preliminary observations of the study “Gender Experiences in IT@School” was presented at the International Conference on Freedom in Computing, Development and Culture held in Trivandrum. The study has been selected to the Journal of Community Informatics' special issue on

Gender and ICT.

### ***5.3 Gender Evaluation***

SPACE is building an association with Association of Progressive Communications Women's Networking Support Programme (APC WNSP) for training in Gender Evaluation Methodology and integrating it in the programme.

Reflections

#### ***ICT and Gender***

ICT had long been considered only a matter of technicality by social workers and activists in the state. But its potential for abuse came to light when several instances of misuse of mobile phones and suicide attempts by girls, were widely reported in the media. The need for social intervention in this area led Sakhi to organise a workshop on 'Misuse of Communication Technologies and New Forms of Violence Against Women' with the support of SPACE in March 2009. We feel more action is required to demystify technology and sensitise organisations and individuals on potential risks.

# Insight-Centre for the Differently Abled

## Components

1. Capacity Building of the differently abled
2. Advocacy and networking
3. Technology Development
4. Audio content production for the visually challenged

## 1.Capacity Building

### Summary of capacity building programmes of Insight 2008-09

Sl. no.	Title	Target Group	Date and Place	Number of participants
1	Assistive technologies for the visually challenged	Akshaya entrepreneurs	Malappuram August 9-10 2008	
			Kannur August 16-17 2008	
			Thrissur September 18-19 October 29 2008	
2	Master Trainers training (fourth level)	Master Trainers	4-6 September 2008	11
3	Training on Ubuntu GNU/Linux Operating System and Orca	Students of Blind School, Vazhuthacaud, Trivandrum	November 15 2008	24
4	Introduction to Ubuntu Operating System and Assistive Technologies for the Visually Disabled.	Staff of Vocational Rehabilitation Centre for Handicapped (VRC)	March 4-6 2009	5

### 1.1 Fourth Level Master Trainers

The Fourth Level Master Trainers training was conducted for 11 Master Trainers at the Insight resource centre from 4-6 September 2008. The sessions were facilitated by Mr. Krishnakanth Mane, Research Fellow, Tata Institute of Fundamental Research (TIFR), Ms Anusha Kadambala, an accessibility advisor based in Mumbai and by the inhouse trainers of INSIGHT. New features of Firefox, introduction to Latex, programming concepts and blogging were the topics included in the sessions.

## **1.2 Training for Akshaya Entrepreneurs**

Akshaya Entrepreneurs of Malappuram, Kannur and Kollam districts of Kerala were trained ahead of the roll out activities of Insight. The topics covered were - Installation of Ubuntu Operating System, Orca Screen Reader, Open Office and Web surfing using Mozilla Firefox. CDs containing Ubuntu operating system and Orca Screen Reader and a handout containing the shortcuts keys for Orca were also distributed to the Akshaya Entrepreneurs.

## **1.3 Training Programme for Visually Challenged Students**

A one day training on Ubuntu GNU/Linux Operating System and Orca was conducted at the Insight centre on November 15, 2008 for 24 students of Blind School, Vazhuthacaud. Accessing files and folders, creating new ones, listening to their favourite song, creating documents with OOWriter and some number crunching using OOCalc. were some of the skills that the children were equipped with during the training. The latest issue of Swaram audio magazine was played for the students at the end of the sessions.

## **1.4 Training for staff of VRC**

A three day training programme was conducted for the staff of Vocational Rehabilitation Centre for Handicapped (VRC), a project under the Ministry of Labour & Employment, Govt. of India, on Introduction to Ubuntu Operating System and Assistive Technologies for the Visually Disabled. The training programme, held over March 4-6, 2009, was attended by 5 Master Trainers from the VRC.

## **1.5 Workshop on Interface Development for the Differently Abled**

INSIGHT organised a workshop on Software Development for children with special needs on September 4, 2008. Dr.Arun Mehta, the chief resource person gave a demonstration of the Skid platform developed by him for children with special needs and also presented the ways in which to add modules to the platform using ruby on rails. The workshop was held at Government Engineering College, Trivandrum and it was attended by students of various Engineering Colleges.

## **1.6 Soft skills development programme**

A sixty-day soft skills development and English language communication course was started on 12 March 2009. Fourteen visually challenged students attended the course. Apart from the regular sessions, training on Ubuntu and Orca screen reader was also given to the participants. Free accommodation was provided to 12 participants from outside the district.

## **2. Advocacy & networking**

### **2.1 Conference on Employing the Differently Abled**

Insight participated in the conference Diversity in Workforce: Employing the Differently Abled held by Group of Technopark Companies (GTECH) in Technopark Trivandrum on August 7, 2008. Arun Ramachandran, Coordinator Insight spoke in the session on Industry-NGO partnership to



train Differently abled.

### **Distribution of free PCs to the Master Trainers**

Free PCs were distributed for 15 visually challenged master trainers. PCs were donated by SBI, SBT and GTECH and procurement was done by Kerala State IT Mission. Orca screen reader was also provided along with the PCs.

**2.2**

## ***National Conference on Enabling the differently abled with the use of ICT***

SPACE and Insight organised a national conference on Enabling the differently abled with the use of ICT at Trivandrum on September 3, 2008. The conference showcased the work of various organizations and individuals across India in the field of accessibility. The speakers in the session on ICT for the Mentally and Physically Challenged included Dr. Arun Mehta, Gaurav Takkar, Media Lab Asia, Swati Chakraborty, Indian Institute of Cerebral Palsy (IICP), K V Johny, CDAC Trivandrum and Vijayachandran of Future India Foundation presented their work.

Sachin Verma of Access Ability, New Delhi, Shanti Raghavan of Enable India, Bangalore, Krishna Kant Mane of Tata Institute of Fundamental Research, Sundar R of IBM Bangalore and Binu Sankar of G-Tech, Technopark spoke in the session on Employability for the Differently Abled.

### ***1.3 Presentation on IT in Special Education***

Insight made a presentation on IT in Special Education at the two-day National Seminar on Best Practices in IT Enabled Teacher Education and Knowledge Management, organised by Department of Education, University of Kerala held at Trivandrum from 17 to 18 October 2008. Mr. James P Mathew, Coordinator, Insight introduced the activities of the centre and its future plans. Mr P. Balaraman, Master Trainer demonstrated how a visually challenged person can use a computer.

### ***1.4 Association with EnableIndia***

Ms. Shanti Raghavan, Founder and Managing Trustee, EnAble India, Bangalore visited SPACE on the 24<sup>th</sup> of December, 2008 in order to have a discussion with the trainers of the English training programme and also to discuss the possibilities of collaboration with Insight. EnAble India, a Bangalore based NGO, provides employment services, training and support services for people with disabilities. Insight wishes to collaborate with EnAble India for its activities related with employment for the differently abled. Mr. Deepesh Sutariya, co Founder and Managing Trustee of EnAble India also took part in the discussions.

### ***1.5 Demonstration of Orca at Science exhibition***

Insight participated in a meet named Poornamitham in Ernakulam held as part of a science exhibition organised by Swadeshi Science Movement and Saksham on October 19, 2008. It demonstrated the screen reader technology for the visually challenged students of blind schools in Ernakulam district.

## ***1.6 Insight website launched***

Insight developed and activated a website detailing the various activities and services provided by Insight. The website is the first accessible website under the Govt. of Kerala. The development of the website was taken up by SPACE. The website came to life in June 2008.

## ***1.7 Employment Portal***

The work on employment portal is almost complete. Enable-India and AccessAbility, two organizations working in the domain of employment of the differently abled have agreed to help INSIGHT in this regard.

## **2. Development of Audio Content**

### ***2.1 Setting up of Studio***

A recording studio was set up at Insight with the support of Kerala State IT Mission. The studio is equipped with sound recording, editing and audio production facilities.

### ***2.2 Swaram audio magazine***

Over the year, the third, fourth and fifth editions of Swaram audio magazine were released, the copies of which were distributed to visually challenged people associated with Insight and to organizations working for their welfare.

In the recent editions visually challenged people were involved in developing content together with the production team at INSIGHT. An editorial committee of visually challenged people provide feedback before each version of Swaram is finalised. Efforts are under way to release the magazine on a monthly basis and to disseminate it widely.

### ***2.3 Textbook Recording***

Insight started producing audio content of school text books for the benefit of the visually impaired students. We have started with books of Standard 7 and hope to do more in the coming year.

### ***2.4 Recording of books from Balasaahithya Institute***

State Balasaahithya Institute gave INSIGHT permission to record two of the titles published by them. Recording of one book is complete.

## **3. Software Development**

### ***3.1 Research on Text to Speech engine***

INSIGHT has been able to do preliminary research on the development of the Malayalam Text to Speech engine. Currently there is only one engineer dedicated for this enormous task. More people will be engaged in the coming months so that the work can be completed as early as possible. We have also taken the services of some linguists to guide us in the process.

### ***3.2 Development of sound database***

Mr. Krishnakant Mane, Research Fellow TIFR, visited SPACE for giving technical assistance for the development of text to speech synthesizer for Malayalam. He shared details of how eSpeak, a speech synthesis software works. He also demonstrated how to record the voice for the speech database using audacity.

### ***3.3 Preliminary report on technologies for Mentally and Physically Challenged***

Various innovative technologies have been developed for the differently abled to use computers efficiently. These technologies called accessible technologies are available in the market - some affordable and others costly. Insight has prepared a preliminary report on the accessible technologies for Mentally and Physically Challenged. This report is available on Insight's website.

# Malayalam Computing Project

## Components

1. Information dissemination
2. Training
3. Technical support

## 1. Information dissemination

SPACE developed an information booklet on how to enable Malayalam in computers and designed the logo and caption for the campaign. The booklet and the logo were released by the noted Malayalam poet, Sri P. Madhusoodhanan Nair.

SPACE designed the website <http://malayalam.kerala.gov.in>. The site provides a range of information and on-line resources. The site is maintained and updated by SPACE.

A CD with necessary information and tools to enable Malayalam in computers was prepared by SPACE. This is also available on the website. SPACE has also built an interface for the English Malayalam dictionary database. SPACE also customised a 2 CD set based on ubuntu GNU/Linux 8.04 with all the packages necessary to support Malayalam. A Malayalam tutorial on how to build a website using the Free Content Management System, based on Wordpress was also developed.

SPACE periodically contributed technical articles for Janapadam, Malayalam Computing Newsletter. The details are as follows:

### Malayalam Computing Newsletter(e-മലയാളം):

Date	Article
January 2009	Contents in 'സാങ്കേതികം' page
February 2009	Contents in 'സാങ്കേതികം' page

### Janapadam:

November 2008	വിവരസാങ്കേതിക വിദ്യയും മലയാളവും മലയാളം മരിക്കാതിരിക്കാൻ സ്വതന്ത്രമലയാളം കമ്പ്യൂട്ടിങ്ങ് കൂട്ടായ്മ
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## 2. Training programmes

SPACE reached a wide range of organisations and institutions in course of the Malayalam Computing Campaign project. These include Master Trainers and Coordinators in Akshaya centres, media persons, librarians, staff in government departments, faculty in colleges/ polytechnics, staff in Citizen Call Center, school teachers under IT@School project. The details of the training programmes are listed below:

### Training for master trainers in Akshaya centres

Date	Venue	Event	Number of participants
18.04.2009	Akshaya district office,Kannur.	Training for master trainers, office staff, field co-ordinators.	20
23.05.2008	Akshaya district office,Kannur.	Training for Resource persons, Key resource persons, Akshaya Entrepreneurs,Akshaya staff.	22
16.07.2008	Akshaya district office, Kollam.	Training for master trainers.	28
19.07.2008	Palace auditorium, Malappuram.	1 <sup>st</sup> phase of Training for Akshaya Entrepreneurs.	75
13.01.2009	Akshaya e-centre, Kodunthara, Pathanamthitta.	Training session for Master trainers of Pathanamthitta Dist.	22
17.01.2009	Palace auditorium, Malappuram.	Training for master trainers.	150

### Training for media persons:

01.09.2008	Press Club,Kollam.	Technical Training for media persons.	
27.11.2008	Palace auditorium, Malappuram.	Workshop for media persons.	60

### Training for librarians:

01.03.2009	Shanthi Conference Hall, Pathanamthitta.	Training for District Library council members of Pathanamthitta.	52
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Training for staff in government departments:

17.05.2008	Akshaya district office, Kannur.	Training provided for Collectorate staff.	
October 2008	Kozhikode	Awareness Programme for Govt. officials in Koilandy Taluk.	
19.11.2008	Collectorate Conference Hall, Pathanamthitta.	Training session for Govt. Officers of Pathanamthitta Dist.	54
26.11.2008	Collectorate, Kollam.	Technical Training for Govt. Staff, Collectorate, Kollam.	
23.01.2009	Transport Commissioner's office. Trivandrum.	Awareness Programme for staff in Transport Commissioner's office. Trivandrum.	
02.02.2009	District Panchayat Conference Hall. Pathanamthitta.	Training session for District Panchayat committee members and staff of Pathanamthitta	28
06.02.2009	Transport Commissioner's office. Trivandrum.	Trouble-shooting Workshop.	

Training in Colleges/Polytechnics:

15.01.2009	Govt. Polytechnic. Kalamassery.	Training and awareness programme for non-teaching staff of Govt. Polytechnics of Kerala.	20
22.01.2009	Govt. Polytechnic Kalamassery.	Training and awareness programme for non-teaching staff of Govt. Polytechnics of Kerala.	20
30.01.2009	U.C College, Aluva.	Attended the National Seminar in U.C College, Aluva and conducted a session on Malayalam computing.	40
07.02.2009	C.M.S College, Kottayam.	Attended a workshop on 'Malayala Bhasha Computing' at C.M.S College, Kottayam and conducted a session on Malayalam computing.	25

Training for website updation:

29.12.2009	Akshaya District office, Kozhikode.	Training on updating Malayalam computing website for Akshaya Malayalam computing co-ordinators.	6
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Training on creating websites in Malayalam (IT@School):

16 <sup>th</sup> &17 <sup>th</sup> March 2009	DRC Trivandrum.	Training for Resource Persons about creating websites for all schools.	24
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Training for Citizen Call Centre:

October 2008	Trivandrum.	Training for citizen call centre staff about Malayalam computing	15
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### **3. Technology support**

- SPACE provided technology support to C-DIT to build online survey application for e-Krishi project with Malayalam keyboard support.
- SPACE provided technology support to Kerala Power Finance Corporation and Kerala State Archival Department on how to enable Malayalam in computers.
- SPACE provided technology support to The State Institute of Encyclopaedic Publications and Technoworld, a Kudumbashree unit to digitize the content of *sarvavijnanakosam* to unicode. The online version of the encyclopaedia is available at <http://ml.web4all.in>

## **Aasthi - IT Asset Management System**

Aasthi is a FOSS based Asset Management System developed by SPACE, which helps in creating and managing a data repository of the inventory of hardware and software of IT resources in an organisation. It has two major components, OCSNG, an application for automatically capturing the inventory data pertaining to the installed hardware and software of a computer and its associated peripherals, and GLPI which helps in the management of these inventories.

The official release of Aasthi was done on 13 June 2008 at 10.30 am at a function held in Mascot Hotel, Trivandrum by Mr R. Chandrasekhar IAS, Additional Secretary, Department of Information Technology, Government of India in the presence of Dr. Ajay Kumar IAS, Secretary (IT), Government of Kerala.

The Government Secretariat is currently implementing it after its successful adoption at Kerala State IT Mission. Keltron is the service agency appointed for installation and data collection. They have installed Aasthi in about 2000 computers at the IT Department and is in the process of installing this e-inventory management system for the rest of the inventories at the IT department.

Apart from software development and customisation of Aasthi, SPACE also trained staff at KELTRON, and Secretariat for maintenance. SPACE prepared the User's Manual, Administrative Manual and Stakeholder Document for Aasthi.



## **List of reports/ publications in 2008-2009**

- Report of the National Conference on Enabling the differently abled with the use of ICT, SPACE and KSITM, October 2008
- Report of review of programmes and organisational systems, Liby T Johnson and Sajith Sukumaran, SPACE, October 2008
- Notes on Radio Alakal, Rema Sundar, SPACE, February 2009
- Insights on INSIGHT, Rema Sundar, SPACE, February 2009
- Gender Experiences in IT@School - an ICT enabled education project of Kerala, India, Raji P R and Arun M, March 2009 (forthcoming in Journal of Community Informatics' special issue on Gender and ICT)