Digital Academy

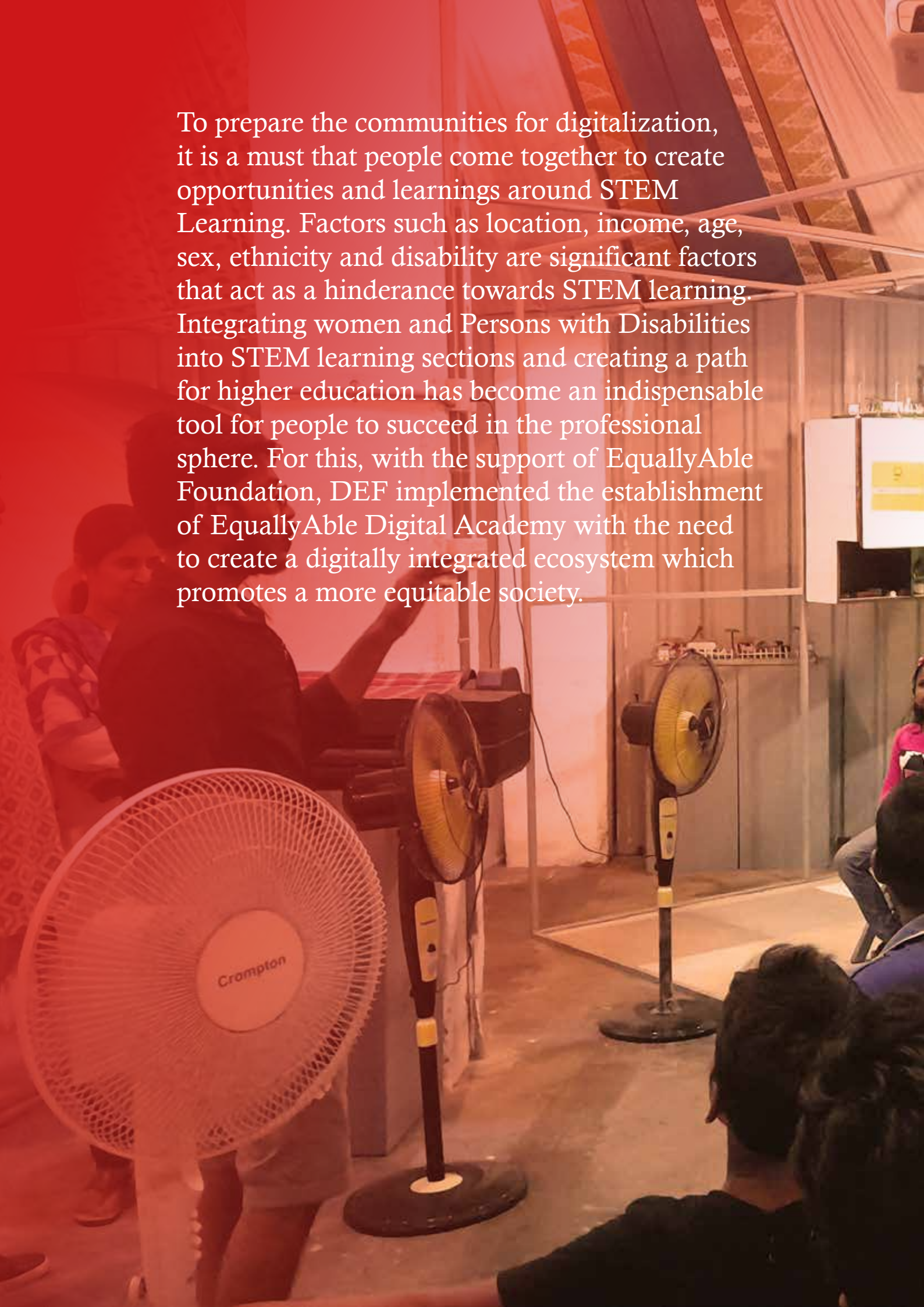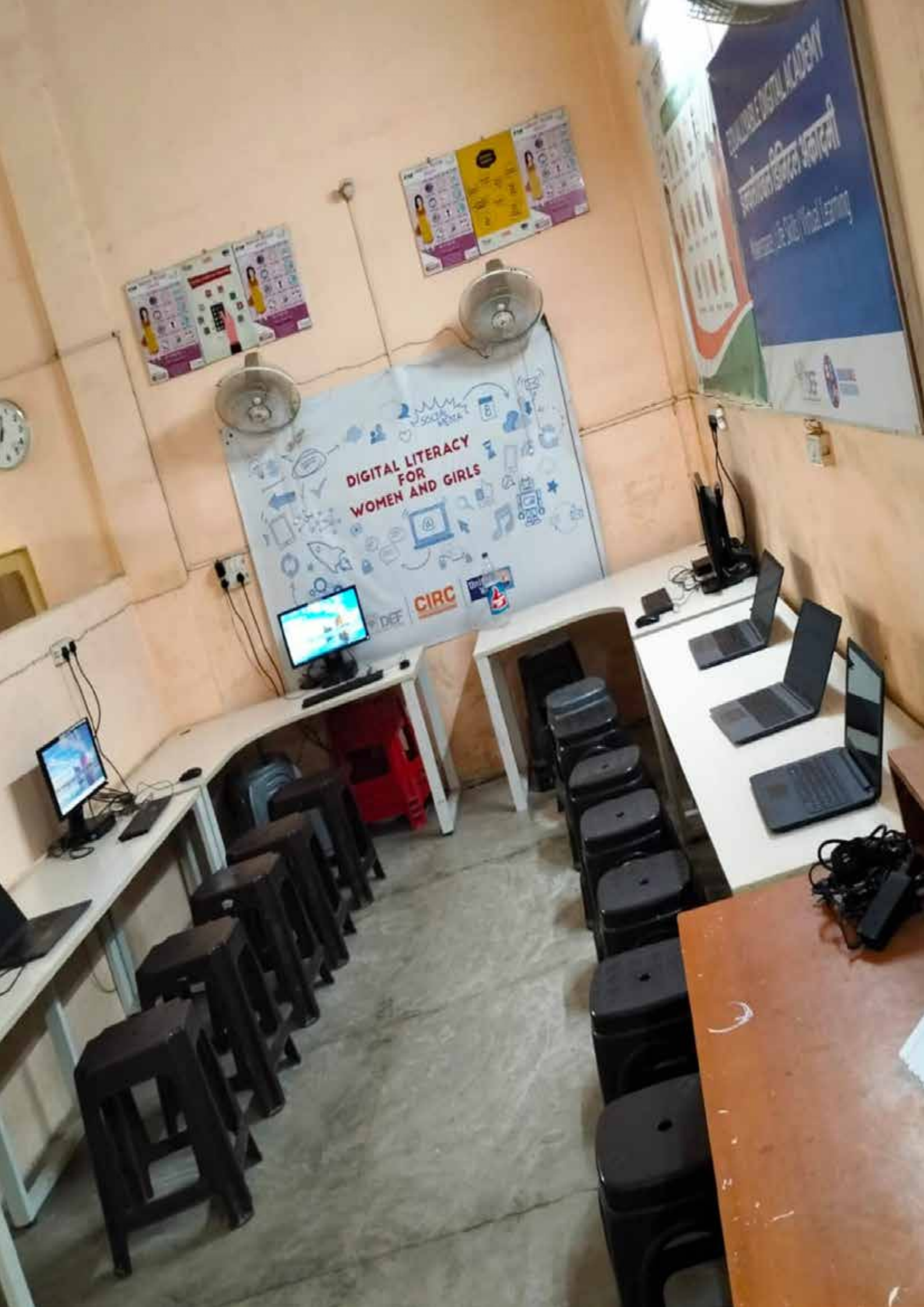EQUALLYABLE FOUNDATION

DEF
DIGITAL EMPOWERMENT foundation

Transforming Education for the Digital Age:
A Comprehensive Report on STEM Learning through Digital Academy

To prepare the communities for digitalization, it is a must that people come together to create opportunities and learnings around STEM Learning. Factors such as location, income, age, sex, ethnicity and disability are significant factors that act as a hinderance towards STEM learning. Integrating women and Persons with Disabilities into STEM learning sections and creating a path for higher education has become an indispensable tool for people to succeed in the professional sphere. For this, with the support of EquallyAble Foundation, DEF implemented the establishment of EquallyAble Digital Academy with the need to create a digitally integrated ecosystem which promotes a more equitable society.

Introduction

The intent of extending the community-oriented interventions with EquallyAble Foundation was inclusivity and enabling marginalised and underserved sections of the society to be able to chart their direction of growth, and give impetus to their faculties of experiential learning.

After thoughtful deliberation on the model of execution of dedicated programmes which could be deployed on field to bring about the envisioned change in the communities, a partnership agreement was signed between EquallyAble Foundation (EAF) and Digital Empowerment Foundation (DEF) in October 2020, with an aim to bring together necessary services to empower target communities that have been pushed to the peripheries due to their socio-economic, physical, cultural, political and geographical conditions.

With this objective in mind, the EquallyAble Digital Academy of Digital Empowerment was created in the communities of Nuh (Mewat, Haryana), Pondicherry (Tamil Nadu) and Ghazipur (Delhi) as a co-learning space which encourages creativity among people in the rural areas to explore and solve problems prevalent to their specific locations.

Predominant idea behind creating these spaces was to foster a mindset among the community members to come up with indigenous solutions to their local problems, rather than adoption of parachuted or foreign solutions due to inaccessibility of infrastructure and educational tools.

There has always been a gulf of information inaccessibility between urban and rural areas, wherein the latter falls way behind in terms of knowledge of the contemporary skills and abilities that remains to be relevant in changing times. It is imperative to bridge this gap of information darkness through a holistic lens where finding way to the impediments that are faced in the path of progress and personal growth, and develop a sense of inquiry in all aspects of life.

Through the EquallyAble Digital Academy, this transformation and skilling the community members with dynamic expertise that has space to transform and grow with the changing landscape of market demands was felicitated. Introduction to 3D printers, robotic kits, laser machine, soldering equipment, audio/videography studio along with computers, tablets and other technology tools has prepared to a great extent, these communities with the advancements and growth being witnessed in skill development arena. There are ample stories of technological and frugal innovations and inventions being done by the members of the community where these spaces are set up, who were previously isolated from the waves of such possibilities.

The EquallyAble Digital Academy, which was established in these communities when EquallyAble Foundation's and DEF's vision aligned, is becoming a platform of knowledge metamorphosis, eventually creating innumerable opportunities for the

Executive Summary

Prior to the commencement of the programmatic interventions in the communities, an extensive Baseline survey was conducted along with understanding the needs of target areas through need assessment. Powered by EquallyAble Foundation, this was complimented with dedicated field visits by DEF team and multiple rounds of discussion with the stakeholders. A comprehensive model of program execution was prepared on the lines of outcomes that resonated from the survey.

Identification of locations, design and construction of EquallyAble Digital Academy was done in consultation with domain experts and complying with the environmental sustainability parameters, incorporating green energy resources and water conservation mechanism. The processes in the campus are aligned to follow upcycling, recycling, re-using the materials generated within the premises.

The trainers that were selected for the EquallyAble Digital Academy were chosen from the community to promote cohesiveness and building of rapport at the village level in order to create a trust cycle so that participation and community engagement level could be given necessary impetus.

The project was designed to make these spaces accessible and relevant for children, youth and adults in the age group of 10 to 24 years of age to create a safe space of learning where community members can come to the Academy and explore all possibilities of learning and strengthening their abilities to innovate and create. Target communities were people coming from socio-economic vulnerable sections, women and girls, persons with disabilities (PWDs), scheduled castes and tribes and minorities groups.

MakerSpace Area and Life Skills Trainings became the highlight of bringing change among the users, when they experienced some of the most fundamental concepts of science, technology, engineering, mathematics and vocational courses, organic farming, weaving and other soft skills could be leveraged to create solutions for pragmatic, environmental and socio-economic challenges faced at the village level.

The development of Learning Management System to facilitate virtual learning which could be utilized as multi-purpose method for live streaming of informative videos, online courses and creating content in order to equip the users to not only be the consumers of information but to become producers of knowledge material through audio/video programmes encapsulating location specific peculiarities, eventually sharing it with the wider ecosystem of sharing of traditional know-how, brought about a transformative change in these communities facilitated by the EquallyAble Digital Academy.

Understanding that the community members, especially girls, were restricted by prevelant gender roles and lack of access to STEM learning and career opportunities, Science Mela's and Awareness Camps were conducted to sensitize the community and igniting the spirit of inquisitive approach of learning because it played a pivotal role of fostering community engagement, participation and a sense of pride in sharing of knowledge for the good of the community.

3
Digital Academy

54+
STEM Facilitators

Large Academy

Remote/Small
Academy
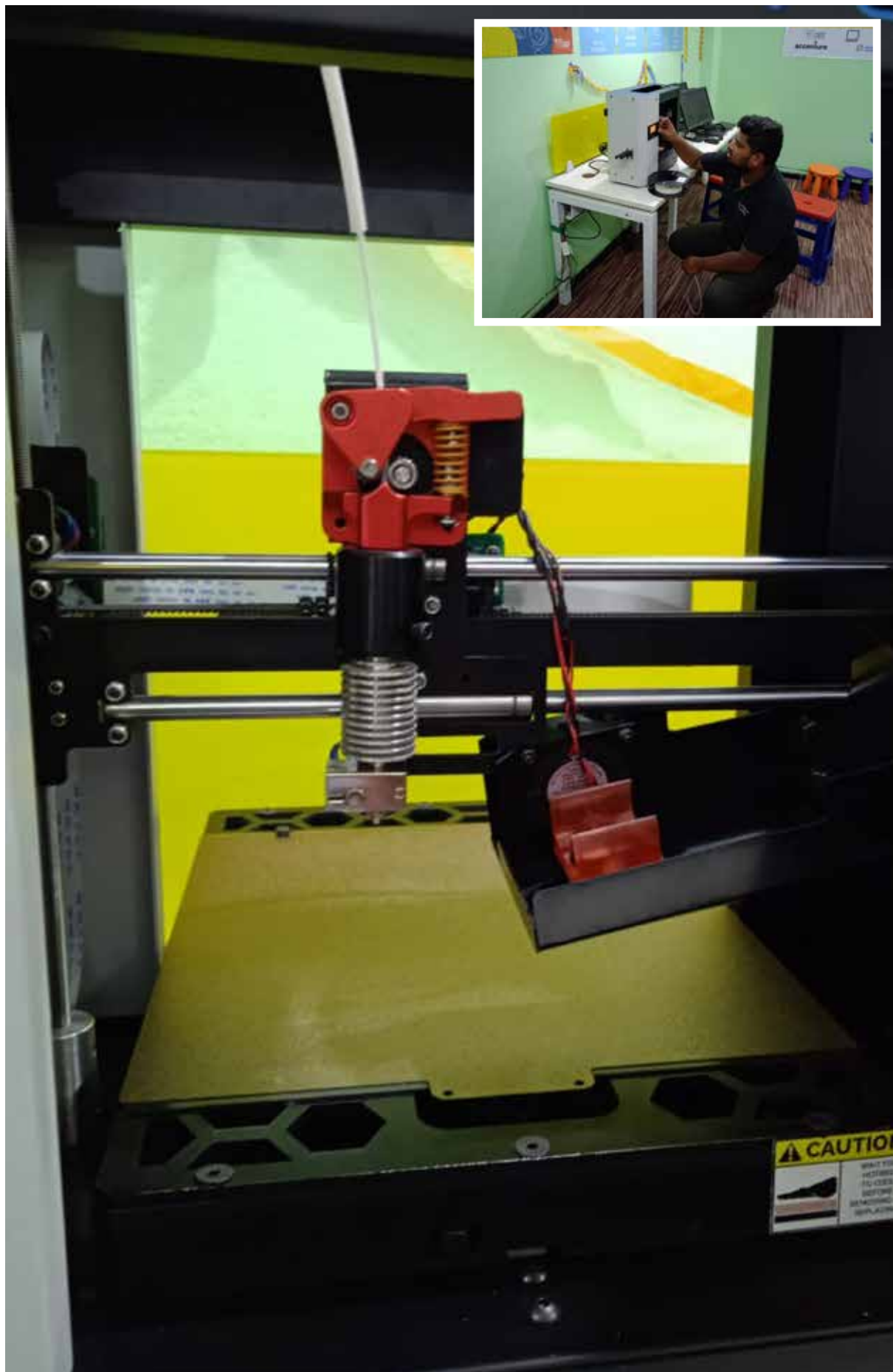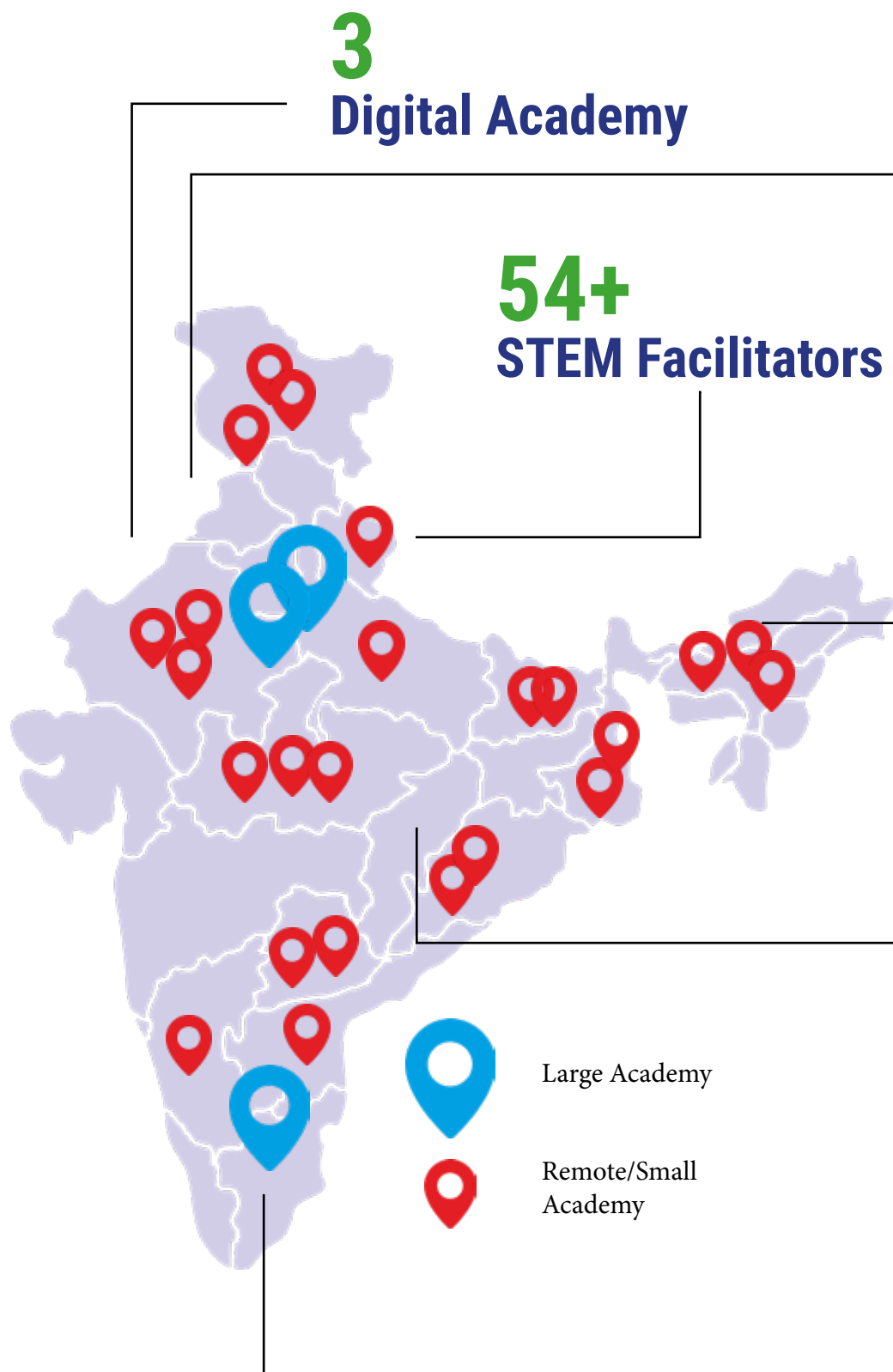
548,000

Enrolled & Trained

241

Remote/Small Academy

189,000

Enrolled & Undergo-ing training

Geographical Outreach of Interventions

After a detailed analysis of feasibility of interventions and need in accordance with the socio-economic landscape of the community, three distinctive/HUB locations were identified for setting up the EquallyAble Digital Academy in the following areas -

Hub EquallyAble Academy ▼

NUH, HARYANA

The Academy in Nuh, Haryana was established in village Tain, catering to the population of 3500 and influx community members. The average number of beneficiaries who visit the Academy for services is 90 per day.

GHAZIPUR, DELHI

The Academy is located in Ghazipur village of Delhi, catering to the population of 4800. Average number of beneficiaries who visit the Academy for a variety of services is 150 per day, accessing different sections of the center.

PUDUCHERRY, TAMIL NADU

The Academy is located in Padmini Thottam village of Kuruchikuppam area of Puducherry, catering to the population of 1500 and influx community members coming from adjacent villages Pappammal Koil area. The average number of beneficiaries who visit the Academy for a variety of services is 60 per day, accessing different sections of the center.

Remote equallyable academy: ▼

S.No.	State	District	Centre Location
1	Andhra Pradesh	East Godavari	Sarpavaram, Kakinada,
2	Andhra Pradesh	Guntur	Gorlivanipalem Sachivalayam
3	Andhra Pradesh	Prakasam(Chirala)	Yadavapalem, Near S.K.A.U.P
4	Andhra Pradesh	Visakhapatnam	Gajuwaka
5	Andhra Pradesh	Visakhapatnam	Gantyada, Pedagatyada Mandal
6	Andhra Pradesh	Vizag	Gorlivanipalem
7	Arunachal Pradesh	Lower Subansiri	Dilang Popin Village, Zero
8	Assam	Cachar	P.O- Binnakandi T.E
9	Assam	Cachar	P.O- Dilkush
10	Assam	Cachar	P.O- Binnakandi Ghat,
11	Assam	Cachar	P.O- Rosekandy
12	Assam	Cachar	P.O- Chengjur
13	Assam	Cachar	P.O- Kaptanpur
14	Assam	Cachar	P.O- Silcoorie
15	Assam	Cachar	P.O- Nunapani
16	Assam	Cachar	P.O- Chincoorie
17	Assam	Cachar	P.O- Sahapur, Pin- 788117
18	Assam	Dibrugarh	MONOHARI T.E,
19	Assam	Dibrugarh	TAMULBARI T.E
20	Assam	Dibrugarh	MUTTUCK T.E,
21	Assam	Dibrugarh	MAIJAN T.E NORTH LINE
22	Assam	Dibrugarh	GREENWOOD T.E 38 Line
23	Assam	Dibrugarh	SESSA TEA ESTATE, Sessa TE Tiniali
24	Assam	Dibrugarh	C/O NIRMAL NAYAK,ROMAI T.E
25	Assam	Dibrugarh	C/O KHAGEN RAJWAR
26	Assam	Dibrugarh	HEZEL BANK T.E
27	Assam	Dibrugarh	Muttuck Tea Estate, Opposite community
28	Assam	Hailakandi	Vill - Chandipur TE
29	Assam	Hailakandi	Vill - Margonpur, P.O. - Chandipur
30	Assam	Hailakandi	Vill - Serispore TE,
31	Assam	Hailakandi	Vill - Singalla TE, P.O. - Singalla
32	Assam	Hailakandi	Vill - Koyah Purbolane
33	Assam	Hailakandi	Vill- Koyah Bazar Tila

34	Assam	Hailakandi	Vill - Mohanpur Grant, P.O. - Mohanpur,
35	Assam	Hailakandi	Vill - Burnie Brease TE, P.O. - Burnie
36	Assam	Hailakandi	Vill - Aloicherra, P.O.- Manipur,
37	Assam	Hailakandi	Vill - Aenakhall, P.O. - Aenakhall Bazar
38	Assam	Jorhat	Letekujaan TE, Ward No6 Near Power
39	Assam	Jorhat	"Bukaholla TE, Ward No 8, Purana
40	Assam	Jorhat	Hilikha TE, Ward No8, Orang Line
41	Assam	Jorhat	Hilikha TE, Ward No9 Line, Jorhat
42	Assam	Jorhat	Khorikotiya TE, Ward No9
43	Assam	Jorhat	Hilikha TE, Ward No8
44	Assam	Jorhat	Bukaholla TE, Ward No7
45	Assam	Jorhat	Rangajan TE, Ward No4
46	Assam	Jorhat	Khorikotiya TE, 1 no line, Titabor
47	Assam	Jorhat	Khorikotiya Grant, Po: Khorikotiya
48	Assam	Kamrup Metro.	CSC Sonapur, J D Complex
49	Assam	Nagaon	Tetelisara
50	Assam	Nagaon	Borbehati
51	Assam	Nagaon	Khetrigaon
52	Assam	Nagaon	Batabdrava
53	Assam	Nagaon	Bhationi
54	Assam	Tinsukia	Dehing Tea Estate
55	Assam	Tinsukia	Dirok T.E. Gate Line
56	Assam	Tinsukia	Doomdooma Raidang TE
57	Assam	Tinsukia	Margherita Tea Estate Nichu Line
58	Assam	Tinsukia	Hukanpukhuri T.E.,
59	Assam	Tinsukia	Talap T,E, Nowgaon line , Tinsukia
60	Assam	Tinsukia	Chandmari T.E.
61	Assam	Tinsukia	Rupai T.E 5 no. Line
62	Assam	Tinsukia	Talap, Dangri T.E
63	Assam	Tinsukia	Limbuguri 17 no line,
64	Bihar	East Champaran	At Madhurapur, Ward N 11
65	Bihar	East Champaran	At Mankarariya Ward No:- 11
66	Bihar	Vaishali	Mansoorpur, vaishali (bihar)
67	Bihar	West Champaran	At Sital Bari Semrahiya Done
68	Bihar	West Champaran	At Haripur Dharmpur Post Sikta Ps Sikta
69	Bihar	West Champaran	At Dhamauara Post Jamuniya Ps Subhdra
70	Bihar	West Champaran	At Gardi Done Ramnagar

71	Bihar	West Champaran	At Kamarchhinwa Done Post Naurangiya
72	Bihar	West Champaran	Bagahi Sakhuhani
73	Bihar	West Champaran	Mahuawa
74	Bihar	West Champaran	Singhadi Panchayat
75	Bihar	West Champaran	Post+Ps Mainatand
76	Bihar	West Champaran	Belsandi Post Belsandi Ps Gaunaha
77	Bihar	West Champaran	Nautanwa Panchyat Jimari
78	Bihar	West Champaran	Sauraha,
79	Bihar	West Champaran	Kunai Laxmipur
80	Bihar	West Champaran	Sirisiya Post Serwa Masjidwa
81	Chattisgarh	Raipur	Taresar, Post office - Pathri
82	Delhi	East Delhi	C-34, Gali no 6, Ghazipur Dairyt Farm
83	Delhi	East Delhi	H. No. 5/459-60, Block-5, Khichripur
84	Delhi	South Delhi	B Block Sanjay Camp Moti Bagh
85	Delhi	South Delhi	Anjam Knowledge House Jangpura
86	Delhi	South East Delhi	C 12/4, Okhla Vihar, Delhi -25
87	Delhi	South East Delhi	H.NO-1446 PH-3, JJ COLONY
88	Haryana	Nuh	Bainsi, Tehsil Nuh
89	Haryana	Nuh	Gram Sachivalay
90	Haryana	Rewari	GOVT Sr Secondary School Karanwas
91	Jharkhand	Khunti	Bagru, Khunti, Jharkhand
92	Jharkhand	Khunti	Idri, Khunti, Jharkhand
93	Jharkhand	Khunti	Jamuwadag, Khunti, Jharkhand
94	Jharkhand	Khunti	Belwadag, Khunti, Jharkhand
95	Jharkhand	Khunti	Bagrutoli, Khunti, Jharkhand
96	Jharkhand	Ramgarh	DVC Chowk, Gola, Ramgarh
97	Jharkhand	Ramgarh	Byang Gola, Ramgarh
98	Jharkhand	Ramgarh	Jamira, Gola Ramgarh
99	Jharkhand	Ramgarh	Dabhatu,Gola, Ramgarh
100	Jharkhand	Ramgarh	Dhamanathand,Gola, Ramgarh
101	Jharkhand	Ramgarh	Murapa, Gola, Ramgarh
102	Jharkhand	Ranchi	Aahan Foundation, Jonha, Ranchi
103	Jharkhand	Ranchi	Sec-II, Dhurwa, Ranchi
104	Jharkhand	Ranchi	Ranikhatanga, Itki, Ranchi
105	Karnataka	Chamarajanagar	sadoddi govt school, Hosadoddi village
106	Karnataka	Shimoga	"ALMEHDI SCHOOL / MADRASA

107	Madhya pradesh	Guna	Thane ke samne, Myana Distt.-Guna
108	Madhya pradesh	Guna	soochna seva kendra,New Bus Stand
109	Madhya pradesh	Guna	Vill.Genhukhedi, Soochna Seva Kendra
110	Madhya pradesh	Sidhi	Mira gautam Near S K Hotel Kotaha
111	Madhya pradesh	Sidhi	Sidhi
112	Maharashtra	Mumbai Suburban	Indira Nagar
113	Maharashtra	Mumbai Suburban	Building No 6/b, Natwar Parikh
114	Maharashtra	Mumbai Suburban	G-2 Ground Floor, G wing
115	Maharashtra	Nandurbar	TIKHORA TAL SHAHADA
116	Maharashtra	Nandurbar	SAMBHAJI NAGAR NANDURBAR
117	Maharashtra	Nandurbar	Narayan nagar,shahda tal.shahada
118	Maharashtra	Nandurbar	Kukdel
119	Maharashtra	Pune	NEAR KASTURI MARKET
120	Odisha	Cuttack	Nuapatna
121	Odisha	Cuttack	Nuapatna
122	Odisha	Cuttack	Kasikiari , Mahulia ,Badamba
123	Odisha	Cuttack	Po-Baunsaput
124	Odisha	Cuttack	Kunarpal ,Po- Abhimanpur
125	Odisha	Cuttack	At-Bidharpur , Po-Abhimanpur
126	Odisha	Cuttack	At/Po-Sankhameri
127	Odisha	Cuttack	At/Po-Nuapatna
128	Odisha	Cuttack	Haridapasi ,Achalkote,Tigiria
129	Odisha	Cuttack	Khuntukata
130	Odisha	Cuttack	Badamba
131	Odisha	Cuttack	Karada,Khuntukata
132	Puducherry	Kuruhikuppam	Deepsthal learning center, 20, Padmini
133	Rajasthan	Alwar	Patankhurd
134	Rajasthan	Alwar	Chawandi Khurd
135	Rajasthan	Alwar	Village Bidarka Post Baghora
136	Rajasthan	Barmer	BAYTU BHOPJI
137	Rajasthan	Barmer	KABIR NAGAR BADNAVA CHARNAT
138	Rajasthan	Barmer	RANIGANV
139	Rajasthan	Barmer	KALYANPUR
140	Rajasthan	Barmer	AALU KA TALA
141	Rajasthan	Emparmer	MADLI
142	Rajasthan	Barmer	INDRA COLONY BARMER
143	Rajasthan	Barmer	DHANAU

144	Rajasthan	Barmer	SAMO KI DHANI
145	Rajasthan	Bharatpur	Sihawli
146	Rajasthan	Bharatpur	Sikri
147	Rajasthan	Bharatpur	Haiwatka
148	Telangana	ADILABAD	ADILABAD
149	Telangana	BHADRADRI	BHADRADRI KOTHAGUDEM
150	Telangana	HANUMAKONDA	HANUMAKONDA
151	Telangana	Hyderabad	DEF,Digital Excellent centre
152	Telangana	HYDERABAD	HYDERABAD
153	Telangana	JAGTIAL	JAGTIAL
154	Telangana	JANGOAN	JANGOAN
155	Telangana	JAYASHANKAR	BHOOPALPALLY
156	Telangana	JOGULAMBA	JOGULAMBA GADWAL
157	Telangana	KAMAREDDY	KAMAREDDY
158	Telangana	KARIMNAGAR	KARIMNAGAR
159	Telangana	KHAMMAM	KHAMMAM
160	Telangana	KOMARAM BHEEM ASIFABAD	
161	Telangana	MAHABUBABAD	MAHABUBABAD
162	Telangana	MAHABUBNAGAR	MAHABUBNAGAR
163	Telangana	MANCHERIAL	MANCHERIAL
164	Telangana	MEDAK	MEDAK
165	Telangana	MEDCHAL	MEDCHAL-MALKAJGIRI
166	Telangana	MULUG	MULUG
167	Telangana	NAGARKURNOOL	NAGARKURNOOL
168	Telangana	NALGONDA	NALGONDA
169	Telangana	NARAYANPET	NARAYANPET
170	Telangana	NIRMAL	NIRMAL
171	Telangana	NIZAMABAD	NIZAMABAD
172	Telangana	PEDDAPALLI	PEDDAPALLI
173	Telangana	RAJANNA SIRCILLA	RAJANNA SIRCILLA
174	Telangana	RANGAREDDY	RANGAREDDY
175	Telangana	SANGAREDDY	SANGAREDDY
176	Telangana	SIDDIPET	SIDDIPET
177	Telangana	SURYAPET	SURYAPET
178	Telangana	VIKARABAD	VIKARABAD
179	Telangana	WANAPARTHY	WANAPARTHY
180	Telangana	WARANGAL	WARANGAL

181	Telangana	YADADRI	YADADRI BHUVANAGIRI
182	Uttar Pradesh	Ayodhya	Gokula Barwa pikhawan,
183	Uttar Pradesh	Barabanki	Sirauli Gung, Post- Shekhpur
184	Uttar Pradesh	Barabanki	vill-&Post-Beekapur ,Barabanki 225404
185	Uttar Pradesh	Barabanki	Alipur, Post - Bhedia, Barabanki 225416
186	Uttar Pradesh	Barabanki	Sundar lal inter collage aurela saidanpur
187	Uttar Pradesh	Barabanki	Vill&post- Hakami, Barabanki 225409
188	Uttar Pradesh	Barabanki	Vill & Post- Mohaliya, Block- Dewa
189	Uttar Pradesh	Barabanki	Vill- Sonipur, Meerapur
190	Uttar Pradesh	Kanpur	Vill- Dool, Post- Bhool
191	Uttar Pradesh	Bhadohi	KOIRAUNA BHADOHI
192	Uttar Pradesh	Chandauli	ALOK HIGH SECONDARY SCHOOL
193	Uttar Pradesh	Chandauli	KHAMARI SAKALDIHA STATION
194	Uttar Pradesh	Gautam Buddha Nagar	B-161, village- Barola, Sector -49
195	Uttar Pradesh	Ghazipur	Village: Kaithwaliya, Block: Sadat
196	Uttar Pradesh	Ghazipur	Village & Post- Vikrampur, Sadat
197	Uttar Pradesh	Ghazipur	Anganwadi Bhavan, Dullahapur
198	Uttar Pradesh	Ghazipur	Jalalabad, Jakhaniya
199	Uttar Pradesh	Ghazipur	Adilabad
200	Uttar Pradesh	Ghazipur	Kurtha
201	Uttar Pradesh	Ghazipur	Miswaliya
202	Uttar Pradesh	Ghazipur	Bhadaura
203	Uttar Pradesh	Ghazipur	Para
204	Uttar Pradesh	Ghazipur	Sarai Mubarak
205	Uttar Pradesh	Kanpur Dehat	MIAU English Convent School, Mewati
206	Uttar Pradesh	Kanpur Nagar	Bhairampur, Kanpur 209304
207	Uttar Pradesh	Kanpur Nagar	Binaur, Block- Kalyanpur, Kanpur Nagar
208	Uttar Pradesh	Lucknow	Purani bans Mandi Khadra Sitpur Road
209	Uttar Pradesh	Lucknow	Shobatiya Bagh, Raza Bazar Road
210	Uttar Pradesh	Mahoba	Kharela, Mahoba 210425
211	Uttar Pradesh	Mirzapur	Mathana
212	Uttar Pradesh	Mirzapur	Mathana
213	UTTARAKHAND	Ponali	Ponali
214	UTTARAKHAND	TEHRI GARHWAL	MUSSOORIE ROAD NEAR SHIV
215	UTTARAKHAND	TEHRI GARHWAL	MUSSOORIE ROAD CHAMBA
216	UTTARAKHAND	TEHRI GARHWAL	Village Saur Jaripani - 249145
217	West Bengal	Birbhum	Vill chandpara, po ChandparaBirbhum

218	West Bengal	Malda	Chhatianmore
219	West Bengal	Malda	SATGORIYA
220	West Bengal	Malda	BUDHIA P.S-ENGLISH BAZAR
221	West Bengal	Malda	SATGHORIYA
222	West Bengal	Malda	Keshurpur
223	West Bengal	Malda	Haripur
224	West Bengal	Murshidabad	Miyarbagan
225	West Bengal	Murshidabad	Jhanja, Rukanpur, Hariharpara
226	West Bengal	Murshidabad	Po-Padmanabpur
227	West Bengal	Murshidabad	Kalupur,Po Beunchitala
228	West Bengal	Murshidabad	Gopinathpur, Po - Kandi
229	West Bengal	Murshidabad	Beldanga, po Jhikarhati
230	West Bengal	Murshidabad	Nagar, Po Nagar, Dist- Murshidabad
231	West Bengal	Murshidabad	Sabaldaha, Ps- Khargram
232	West Bengal	Murshidabad	Amaipara,PO-Jiaganj, Murshidabad
233	West Bengal	Murshidabad	Dewan Sarai,po Laskarpur, Lalgola
234	West Bengal	Murshidabad	Paranpara, Po Ramdevpur,Jangipur
235	West Bengal	Murshidabad	Vill- Uttar Chachanda
236	West Bengal	Murshidabad	Vill-Jotkashi,PO-Kankuria
237	West Bengal	Murshidabad	Vill- Debogram, PO- Joypur
238	West Bengal	Murshidabad	VILL - BISWANATHPUR
239	West Bengal	Murshidabad	VILL - MIRHATI
240	West Bengal	Nadia	Vill & PO-Palasipara
241	West Bengal	Nadia	Panditpur, Natidanga

Key Intervention Areas and Activities

Dedicated programmes are created to impart capacity building trainings on digital education (including hands-on experience of assembling and dismantling technology hardware and tools). Digital education, experiential learning and life skills education such as yoga, crafts, weaving and organic farming constituted the learning curriculum. In order to make the learning experience engaging and non-conventional, these training modules were not delimited to a structured pattern, rather they are designed to accommodate location specific needs and differentials depending in calibration with the understanding levels of the learners. Ample opportunity is accorded to the learner to re-create, re-invent and contribute in the entire learning process, as and when the need is detected.

MakersSpace

This program focusses on encouraging meaningful collaboration, creativity and innovation, knowledge building, enquiry, problem solving and critical thinking. Maker's Space facilitates an unstructured learning space supported by digital/STEM tools that allow children and youth, especially persons with disabilities, to take ownership of their learning and create innovative solutions for their communities.

Students from Satya Special School (particularly specially-abled children in Puducherry, Tamil Nadu) harvested mushroom after undergoing organic farming trainings at the center. It is heartening to witness the happiness of children who prepared different dishes from the mushrooms that we cultivated.

Life Skills Education

This program enables individuals to adapt and deal effectively with daily predicaments one faces in life, and how to become socially, economically and emotionally productive member of the society. Specific trainings on organic farming, pottery, weaving, visual arts and soft skills are imparted to the learners for their holistic development and confidence-building

SOME MAJOR ACTIVITIES >>

Digital Academy (https://www.defacademy.org/) is an es-teemed online platform that offers comprehensive digital education and training programs. With a focus on equip-ping individuals with the necessary skills to thrive in the digital age, Digital Academy provides a diverse range of courses in areas such as web development, data science, cybersecurity, and digital marketing. Through their expertly curated curriculum, interactive learning materials, and in-dustry-relevant projects, Digital Academy empowers learners to gain practical knowledge and expertise in cutting-edge technologies. By bridging the gap between theoretical con-cepts and real-world applications, Digital Academy plays a crucial role in nurturing the next generation of digital pro-fessionals and fostering innovation in the digital sphere.

Children in the age group of 10 years learnt about making telescope using lens and cardboard. The entire process was swiftly adapted by children who created a telescope with little hand-holding and they were very excited to undergo the entire process of learning. Children in the age-group of 12-13 years also made 3D perspective drawings and designs using 3D printers.
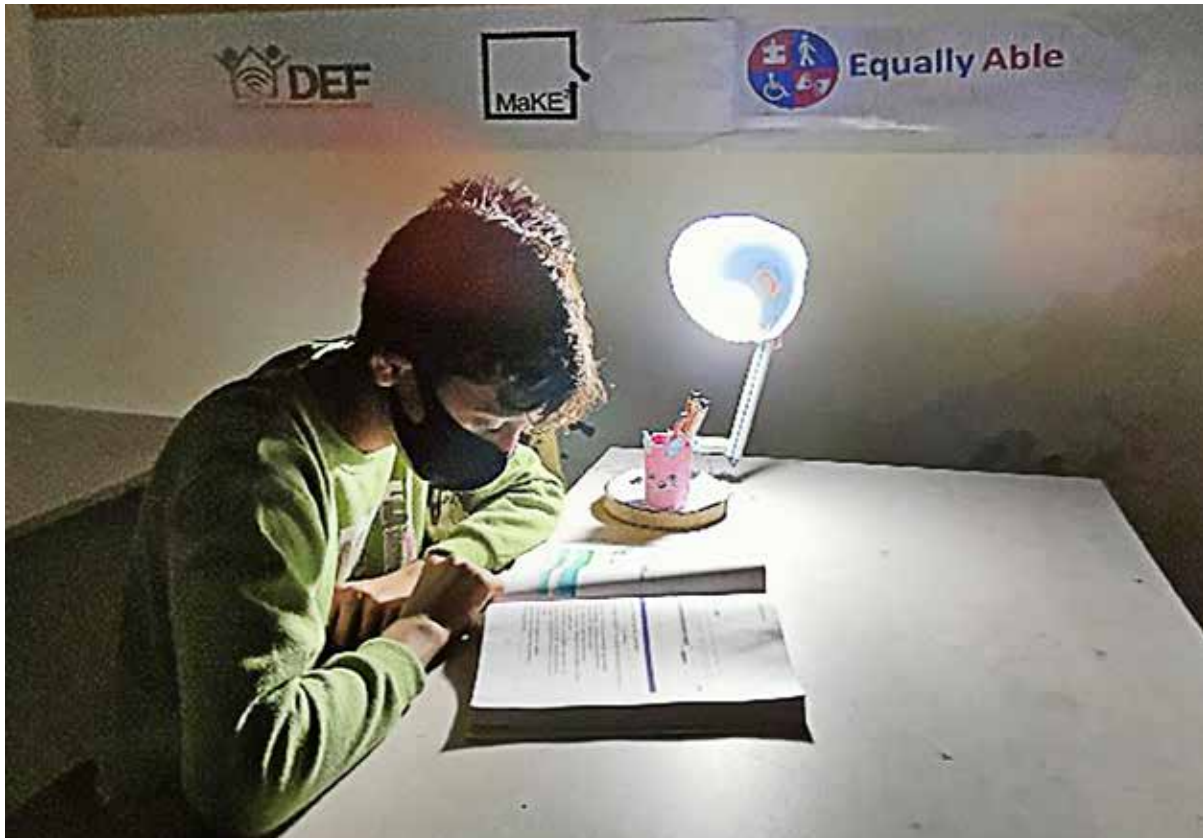
Children at Nuh Center repaired LED bulbs after learning from videos on YouTube. Gradually, they also learnt making a table lamp using a PVC pipe and LED bulb by attaching it with a battery. These frugal innovations at the local level enabled a drive among other users of the center to create something new and innovative of their own. This drive encouraged other users to create a water overflow alarm, which would automatically give an audio alert that the tank is full. This innovation motivated these young creators to make water alarms and fix in their water tanks at home to get an alert each time it is full in order to avoid water wastage.

With the aim of enabling the youth in the rural communities with technology skills, dedicated sessions on MS Excel and advanced analysis formulas were conducted. These technology-based sessions were conducted to facilitate employment opportunities for them, so that they can pursue careers in STEM and become financial contributors in their families.

The activities were also focused on mechanics and analysis. Young people in the community were educated and trained on dismantling and assembling a CPU unit. This helped the learners to develop a clear understanding of each part of the CPU and what is the functionality of each component.

Exposure visit to the Botanical Garden in Puducherry helped equally abled children to learn about varieties of gardening techniques, types of trees and plants which they read in their textbooks. During the visit, these children interacted with strangers and communicated with them, eventually experience a surge of self-confidence in themselves.

Students from the special school in Puducherry learnt conduction of charge in Water and at a further stage learnt using lemon to conduct electricity. They even learnt fundamental concept of solute, solvent and solution, experimenting with the batteries.

Li-fi bi-directional wireless system that transmit data via LED or infrared light was made by one of the users at the Nuh Center. It is highly encouraging for other users to adapt to the innovative methods creating things at the community level which could be replicated for a wider usage in a frugal manner and share for common good.

Empowering Rural Youth through Digital Academy's MyOpportunities Portal

In India, the youth face several challenges that need to be addressed, including education, skilling, economic opportunities, and participation in nation-building. Technology has the potential to bring about change in these areas; however, many young individuals are still at a disadvantage due to issues such as limited connectivity, accessibility, digital literacy, and work-ready skills. Therefore, addressing these issues is critical in empowering the youth.

A significant portion of the Indian population resides in remote areas, where access to career opportunities is limited. Rural college graduates face several challenges in realizing their potential. This is due to flaws in the education system, lack of exposure, and limited access to information. To address this issue, the Digital Academy has taken the initiative to bridge the gap between the rural and urban sectors of the country.

Recognizing the need for equal opportunities for rural college graduates, the Digital Academy has launched myopportunities.in, an online portal that connects youth with career opportunities. The portal provides comprehensive information on fellowships, scholarships, government, and private jobs, entrepreneurship competitions and schemes, internships, entrance exams, and higher education opportunities. The platform aims to create a level playing field for rural college graduates to compete with their urban counterparts.

myopps.in
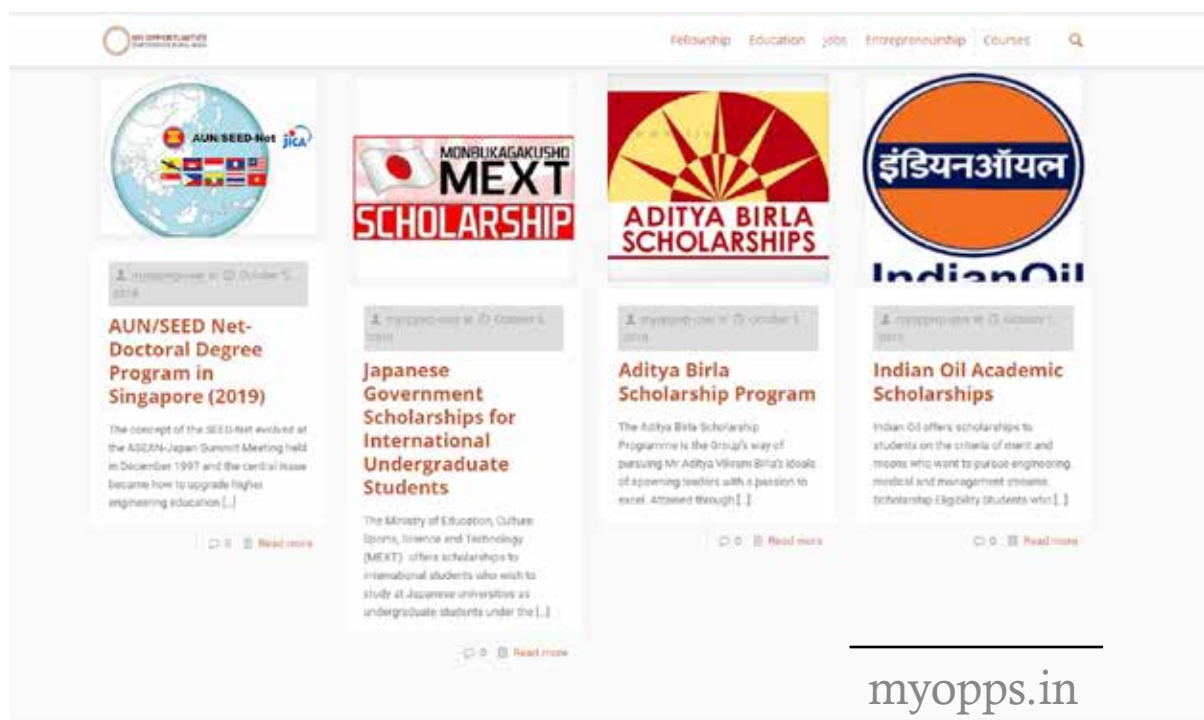
Myopportunities.in provides access to career opportunities and features stories and experiences of individuals who have gone through these opportunities. These stories aim to inspire and motivate rural college graduates to aspire for more. The platform aims to help rural college graduates realize their potential and prepare them for the future.

With platform-centric approaches, barriers can be broken down and collaboration can be facilitated between different parties. The creation of an ecosystem that is connected and interdependent will benefit all by addressing both their needs and their offerings. Through this portal, young people can gain access to skills, job opportunities, and entrepreneurship training they need to thrive. It is through this approach that we can empower the youth and drive positive change as well as make various opportunities more accessible to them.

The myopportunities.in portal is a significant step in that direction, holding great promise in addressing the issue of limited access to career opportunities for rural college graduates. The platform aims to create equal opportunities for the youth of India and drive progress and growth for millions of young individuals in rural areas. The Digital Academy's efforts in bridging the gap between the rural and urban sectors and providing access to career opportunities are commendable and have the potential to create a positive impact on the lives of the youth in the country.
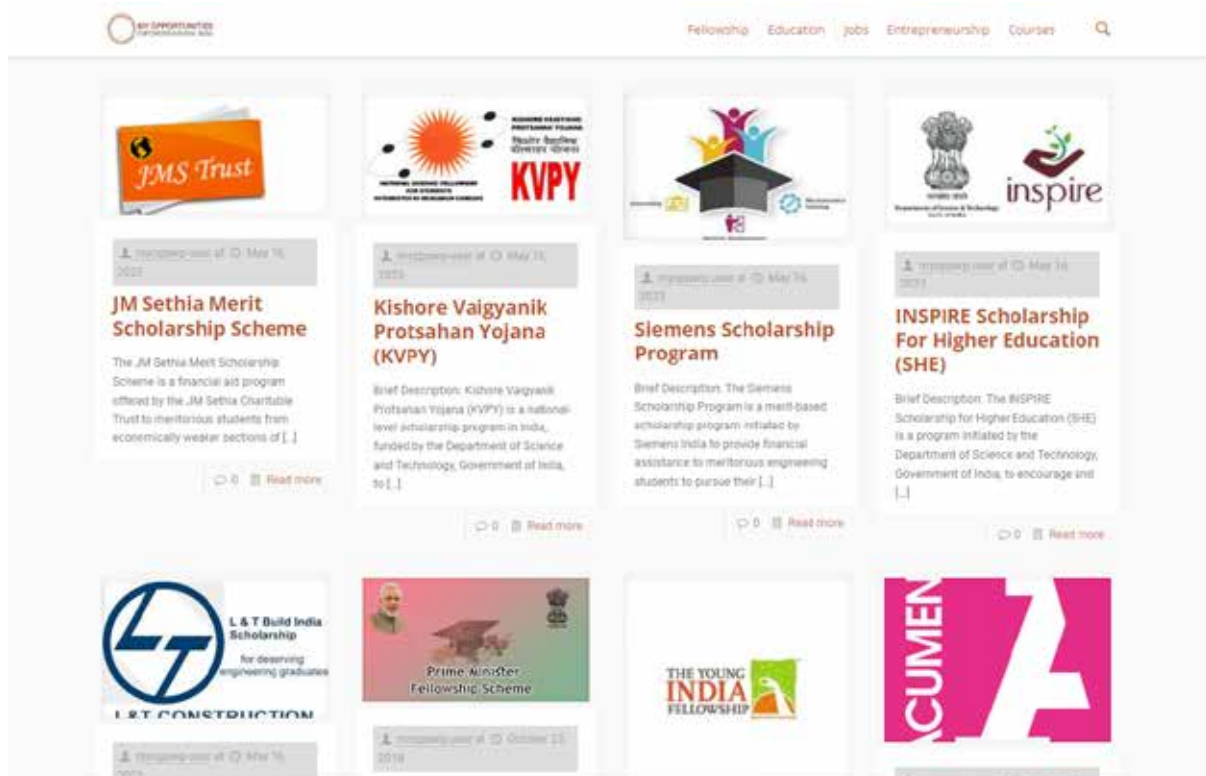
Children at the center in Puducherry created touch sensor, during the process learnt key concepts of electronics, circuit making and its applications. Using these concepts, they even made a weighing machine and, in the process, learnt about modelling, prototyping, testing, designing and deploying. These concepts enabled learners to practically undergo the process of design thinking.

Students learnt coding in Ghazipur through online sessions, including HTML, JavaScript, SQL and programming. The commencement of the program was facilitated by basic HTML script and making webpages with the help of W3C.

Makerspace users in Puducherry created a prototype model of Virtual Reality set. During the community education program, the youth researched the featured and technicalities involved in making of a VR set, ordered lenses online and created a fine model of VR at the center.

Digital Green Prakriya Initiative

Digital Green Prakriya initiative was undertaken as a pilot program at two locations; Nuh (Haryana) and Chanchalguda (Hyderabad). The program aimed to provide an easily accessible repair center with low-cost services to encourage people to undertake repairs of their electronic devices instead of disposing it and purchasing a new one, to extend the products life span and usage.

It was also envisioned to create an ecosystem at the community level to foster digital consciousness and encourage citizens to be digitally responsible, especially towards e-waste management. Door to door campaigns, e-waste collection drives and repairing workshops were conducted, which were deemed relevant to the needs of the community, directly and indirectly reaching to 60 participants in the two locations.

Aligning the program with environment sustainability priorities and e-waste management rules DEF endeavored to contribute in reducing the negative environmental impact of digital technologies, promoting digital safety and care, and generated awareness on judicious

management of electronic waste.

DEF has been focusing on circular economy in electrical and electronic wastes in India and Global South. DEF is one of the core organizations engaged with Ministry of Electronics & IT in India in strengthening the draft policy on circular economy (published in 2021 and amended in 2023) and submitted critical recommendations and inputs.

The outcome of this pilot program is critical to fine tune approaches and strategies to put key factors together for the above. One key outcome has been increased awareness, understanding and interest in the community to the subject and priorities of circular economy in digital devices sector for greater social, economic and environmental good.

Symphony of Science Event

Science is a way of life and to foster a modest, open-minded, question-seeking temperament and readiness to welcome new knowledge through experimentation and critical thinking, Makerspace along with neighborhood schools celebrated children science fest on 25th January 2023 organized by Deepsthal Learning Centre, Puducherry.

The event was designed to encourage students, teachers and the community to take interest in the study of science by providing students with the opportunities to investigate a topic by utilizing the scientific process, conducting the required research, conducting an experiment or inquiring an activity that shows an understanding of the fundamental processes of science.

Happiness is only real when it is shared. Along with Deepsthal Learning Centre, the vibrance at makerspace rippled with the association of school children from the neighborhood community.

Students from Mahatma Gandhi Govt. Aided Middle School, St. Antony's Govt. Aided High School, Immaculate Heart of Mary's Govt. Aided High School, Shree Bharath Vidya Ashram CBSE School and Satya Special School presented themselves with projects across various scientific disciplines.

Projects covering basic concepts in explaining sound, light, tensegrity structures and gravity, using 3D printer resources in creating smart planter & mobile phone cases, creating a model of PSLV rocket, innovating light automation technology & smart blind stick, smart LPG, smart gloves for speechless, understanding the design principles of creating a kennel, researching and publishing a tools guide booklet, making hydraulic machines, creating artistic paintings and handicrafts, uses of renewable energy resources, and re-creating the Virtual Boxes inspired from Google Cardboard. Makerspace feels proud in hosting SYMPHONY OF SCIENCE with the association of 6 neighborhood schools displaying 45 exhibits in total.

Transformation on ground

It is visible from the transformative change observed on ground through these Centers (in the communities of Nuh, Puducherry and Ghazipur) supported by EquallyAble Foundation and dedicated interventions made by DEF in bringing out the latent potential of indigenous knowledge, and problem-solving abilities, leveraging the resources which are local and peculiar at the same time.

The vision of creating these spaces inclusive, innovative, functional, sustainable and resourceful is bearing fruit. Communities with physical and social disabilities

are reaching out and becoming active contributors at the centers through their innovations. These innovations are further encouraging creativity, frugal engineering and multidisciplinary thinking to solve real-word problems.

Children are facilitated with open learning and teaching is focused on student centric inquiry, who are taking ownership of their education and creating solutions for their communities.

As the spaces are functional and accessible, people with disabilities are also being included in the mainstream of learning through dedicated capacity building programs. The premises are constructed using environmentally responsible and energy – efficient design and architecture. Equipped with modern tools, technology and digital infrastructure, these spaces are acting a dynamic node in the community, through which vibrant waves of continuous learning are being emanated, motivating and encouraging the entire community to come and embark on a journey of holistic development, where no one is left out.

Stories of Transformation

Roman >>>>>>

Roman is 21 years old who is passionate about life. Due to his neurodevelopmental disability, he didn't get opportunity to develop his skills. Through his teacher, he visited MakerSpace with his father and showed interest in the activities taking place at the center. As he stayed far, his parents were not ready to send him alone due to safety concerns. He convinced his parents otherwise and decided to travel by local bus on his own to reach the center. During his time at the MakerScape, he showed interest in graphics designing and animation. He also learnt mushroom culture with the hopes of starting his own mushroom farm to support his family. Staying at MakerSpace from morning till evening has given him opportunities to learn subjects, meet people, interact with other children and paving the way for building his self-confidence. He has also applied for 12th board exams in order to pursue higher education. He is one of the children who are inspired by experiential learning at the MakerSpace. Roman is thriving each day to make his dream come true as a recognized designer in the future.

By the end of January, he had developed enough confidence to travel 11 kilometers to the center. He also gained the confidence to apply for a part-time job in his locality, and took the responsibility of designing the brochure for the MakerSpace center, to reach out to other communities and schools.

Siva Prasad >>>>

Siva Prasad is an eighteen-year-old kid with autism. He has completed his 10th standard in NIOS Board. Siva is capable of reading and writing but his attention span is affected due to his autism. Since there is a lack of understanding and empathy when it comes to special needs children, no school accepted him and organisations with special needs facilities asked for fees which the family could not afford. These circumstances made the parents the sole care-takers but also affected Siva's mental health because being at home all the time created problems in social interaction and communication.

After visiting the MakerSpace, the trainers decided to dedicate two hours of their time to him. There was apathy and no interest noted in the beginning, but social interaction with other children at the center improved. With a repetitive pattern of behavior, he got used to the functioning of the center and felt confident. He mingled with the Pyar Trust Children, helped younger children in spellings while writing and reading.

Siva also showed interest in working on his motor skills and cognitive abilities, including his hand-eye coordination and his nerves and muscle coordination. This helped the trainers in identifying the kind of activities that would keep him engaged. Activities implemented included paper cutting, free-hand sketching, glass painting so his concentration span is increased. To make him feel confident, he was given tasks like hammering a nail in wood. Though he was scared of hurting himself, he learnt to hold a hammer and did well. He understands, enjoys the work and also remembers the patterns.

To improve his bone and muscle coordination, he was also taken to a nearby stadium four days a week, to facilitate sports-related activities like running, jumping and basic exercises that he was interested in. To understand the kid more, we go to the nearby stadium four days a week where he learns running, jumping and some basic exercise.

Monisha >>>>

Monisha is a 17 years old and a special needs child. Due to the difficulties she faced at school, she migrated to Satya Special School. With empathy and support from the faculty and other students, she continued her studies. When she came to MakerSpace, she was nervous and would not talk to any other child. Eventually, after honing her confidence and creating a safe and friendly environment, she gained the confidence to socialize with the other children. She also started showing interest in learning various subjects at the MakerSpace and expressed her dream of becoming a mathematics teachers and helping the community members. Her participation in the MakerSpace activities encouraged her to get a part-time job and to provide for her family, and to ensure that they were being taken care of by their daughter.

Acknowledging the Partners

We would like to extend our heartfelt gratitude and appreciation for the invaluable contribution of our partners to the cause of promoting STEM learning, fighting gender-based barriers, and promoting digital literacy. The unwavering support of our partners has been instrumental in driving positive change and creating opportunities for countless individuals.

With the support of EquallyAble Foundation, we were able to create a sustainable model of information dissemination and consumption through activities and events conducted at the Digital Academy.

Our cohort of partners have been instrumental in promoting digital literacy has had a profound impact on bridging the digital divide. The support of Quest Alliance is enabling girl students in STEM learning and EMpower is supporting the training program on mental wellness, STEM learning and gender equality for young girls at the center. Donaldson has upskilled the training-capacity for PWD's and women in STEM Learning and Digital Skilling, Accenture is providing technology and equipment support, TASK and SkillBot is facilitating digital literacy and self-learning modules and WE HUB is further strengthening the capacities of women entrepreneurs in the community.

We are immensely grateful for your partnership, collaboration, and unwavering commitment to these important causes. Your generosity and dedication have created a lasting impact on the lives of those we serve. Together, we are shaping a future where STEM education is accessible to all, gender barriers are dismantled, and digital literacy becomes a catalyst for growth and empowerment.

EquallyAble Foundation

EquallyAble Foundation is a non-profit organization founded in 2001 with a mission to empower people with disabilities around the world. We work towards creating a more inclusive and accessible world where everyone has an equal opportunity to thrive regardless of their limitations.

At EquallyAble, we believe that disability is not a limitation, but a unique perspective that can enrich our world. We strive to create opportunities for people with disabilities to fully participate in society, whether it be through education, employment, or healthcare.

For more information:

Website: equallyable.org
Email: info@equallyable.org

Digital Empowerment Foundation

Digital Empowerment Foundation (DEF) is a Delhi-based nonprofit organization working towards empowering people to gain access to better healthcare, education, skills and livelihood opportunities through digital literacy and digital tools. The organization's main focus is to make technology easily accessible to the masses, to empower women, youth, persons with disabilities and the elderly through providing functional digital literacy, media literacy, and digital up-skilling across agriculture, micro and nano-business, health, education, livelihood, and entrepreneurial skills. Over the last 20 years, the organization has been actively engaged in digitally empowering local communities through its 2,000 Community Information Resource Centers. These centers are supported by a widespread network of 10,000 digital foot soldiers located across 24 states and 135 districts in rural, tribal, marginalized and unreached areas. DEF has directly impacted the lives of more than 30 million people including people from below the poverty line, women, artisans, youth, persons with disabilities, and the elderly.

For more information:

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Email: info@defindia.org