

Science, Technology and Innovation Hub for Empowerment of SC/ST Population
(SEED/SCSP/2019/54-(May 29, 2019))

Science Technology and Innovation hub for the Empowerment of SC/ST Population

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Professor M. D. Shirsat and Professor Bharti W. Gawali
(Principal Coordinators)

DST SEED Science, Technology and Innovation Hub for Empowerment of SC/ST Population
Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (MS)

Project Period - 01/07/2019 to 30/06/2022

Project Cost- Rs. 2,61,86,209/-

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD (MS)

Department of Science and Technology
Science, Technology and Innovation Hub for Empowerment of SC/ST Population
Project Implementation Team

Principal Coordinators : Professor M. D. Shirsat and Professor B.W. Gawali

KUSHAL Activity	CSTURI Activity	HARIT Activity
PRINCIPAL INVESTIGATORS PROFESSOR M. D. SHIRSAT DR. K. DATTA MR. V. USHIR	PRINCIPAL INVESTIGATORS PROFESSOR B. W. GAWALI DR. PRAVIN YENNAWAR	PRINCIPAL INVESTIGATOR PROFESSOR A. S. DHABE
CO-PRINCIPAL INVESTIGATORS MR. A. SAMBARE MR. R. HIWRALE	CO-PRINCIPAL INVESTIGATORS PROFESSOR RAMESH MANZA	

DDU KAUSHAL Kendra Dept. of Computer Science and Information Technology Dept. of Botany

Project Location: Kannad Taluka (MS)

Chikalthan	(Completed)	Village 1
Narsingpur	(Completed)	Village 2
Andhaner	(Completed)	Village 3
Nagad	(Completed)	Village 4
Lohgaon	(Completed)	Village 5
Deogaon	(Completed)	Village 6





ҚАЗАҚСТАН РЕСПУБЛИКАСЫНЫҢ БІЛІМ ЖӘНЕ ҒЫЛЫМ МИНИСТРЛІГІ

№

2024

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CONCEIVING INTERVENTION- ROADMAP

Identification of regions on basis of SC/ST population

- Tools –
- Preliminary study through census data
 - Regular meetings with NGOs

Villages undertaken for intervention finalized based on extreme socio-economic condition of SC/ST community

- Tools –
- Meetings with village level officials
 - Campaigns in SC/ST colonies in identified villages
 - Meetings with persons having root level connection with SC/ST community

In-depth Study on livelihood of SC/ST Community in target villages

- Tools –
- Extensive door-to-door outreach

Identification of Root Cause of misery and distress

- Tools -
- Brainstorming sessions in association with Janki Devi Bajaj Gram Vikas Sanstha (NGO)

Interventions planned

- Tools –
- Brainstorming sessions with NGOs
 - Exercise of own expertise area

PROBLEM(S) IDENTIFIED

Working population among target beneficiaries are -

- Working as daily workers in cultivation land of others
- Going to nearest township (Kannad/ Aurangabad) for daily jobs in purely unorganized sectors
- Devoid of any alternative livelihood skills
- Suffering from inferiority complex to merge themselves with professional life of cities/industries

Above leads to hand to mouth situation

Continuous threat -

- Unpredictable atmospheric behaviour (extensive flood 2019-21; extreme draught 2016-2018)
- Unorganized job sectors do not offer long term security

Many female members of such families are working as house maids.

Those who want to acquire skills in some format to become eligible for jobs in Aurangabad based industries, cannot afford to bear the cost of training.

PROJECT OBJECTIVE

- ✓ To bring the non-working population of SC/ST community from target region to a socio-economically respectable platform
- ✓ To provide Skill based Training for generation of alternate livelihood *(in domains with local opportunity)*
- ✓ Training to at least one member of a family where there is no perennial income source *(to cater maximum strata of household)*

Three Activities –
Across Six Villages in Kannad Taluka

Transforming Skills 



DDU KAUSHAL Kendra



Dept of Computer Science & IT



Agriculture



Dept of Botany



Salient Achievements

Awareness Program Conducted

Village	KUSHAL	CSTURI	HARIT	TOTAL
1 & 4	13	11	5	29
2 & 5	15	11	07	33
3 & 6	11	09	04	24
Total				86

Number of Participants in Awareness Program

KUSHAL	CSTURI	HARIT	TOTAL
1214	1554	829	3597

Salient Achievements

Direct Beneficiary Details

Village	KUSHAL		CSTURI		HARIT		TOTAL
	Male	Female	Male	Female	Male	Female	
1 & 4	90	01	88	71	39	22	311
2 & 5	139	39	116	90	71	61	516
3 & 6	28	33	35	44	28	18	186
Total							1013

Female : 37 %

Male : 63 %

Salient Achievements

List of Training Domains

KUSHAL	CSTURI	HARIT
<ul style="list-style-type: none"> Household Wiring and Pump Repairing 2-wheeler servicing Pollution Under Control Solar Panel and Pump Installation Automated Irrigation for Cultivation Land Industrial Robotics (Adv. Course) Wheel Alignment and Balancing (Adv. Course) Training of PLC and Control Panel (Adv. Course) <p>Electrical & Automobile</p>	<ul style="list-style-type: none"> Basic Computer Skill Open Office Desktop Publishing Graphic Design Network Design Computer Animation Computer Maintenance Mobile Maintenance Software Testing Network Administration Mobile App Development Internet of Things Linux Administration <p>Computer Technology</p>	<ul style="list-style-type: none"> Cultivation of Medicinal Plants Collection of Medicinal Plants Development of new herbal formulations <p>Agriculture</p>

Salient Achievements

Small Enterprise/ employment Generation

Entrepreneurial ventures	10
Employment Generation	92

Alternate Livelihood Creation

KUSHAL	08
CSTURI	05
HARIT	02
Total	15

Improved Linkages with Market

KUSHAL	07
CSTURI	03
HARIT	06
Total	16

Salient Achievements

Science & Technology Intervention

KUSHAL	08
CSTURI	08
HARIT	02
Total	18

IMPACT OF ACTIVITIES UNDERTAKEN

- Now villagers have understood the importance and significance of skill based training for creation of alternate livelihood
- Their Interest towards entrepreneurship and starting enterprise has been considerably increased
- Significant number of farmers are inclined to adopt scientific methods of farming
- Their Interest towards cultivation of medicinal plants has also been increased
- Socio-Economic status of SC/ST community has been enhanced

Proposed Future Activities

- Short Term Skill based program based on the infrastructure created under this project would be implemented in respective University department
- Students from SC/ST community would be allowed to join free of cost
- Revenue generated through fees collected from other students would be utilized for recurring expenses of the activities

KUSHAL Activity



KUSHAL Activity

Transforming Skills



Generic Objectives

1. Hone skills in the area of basic electrical, electronics and automobile technology
2. Adaptation of above technologies/tools/techniques in rural domain for socio economic development
3. Integrate technologies/tools/techniques with individual interest
4. Creation of micro entrepreneurship and forward linkages

KUSHAL Training Domains

Transforming Skills

Hone skills in the area of basic electrical, electronics and automobile technology

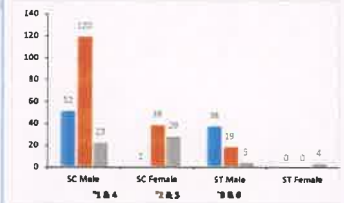
Activities Undertaken

Training on Solar Panel and Pump Installation	Training on Control Panel Wiring
Training on Automated Irrigation for Cultivation Land	Training on Wheel Alignment and Balancing
Training on 2-wheeler servicing	Training on Household Wiring and Pump Repairing
Training on PUC	Training on Industrial Robot Programming

At a Glance Figures

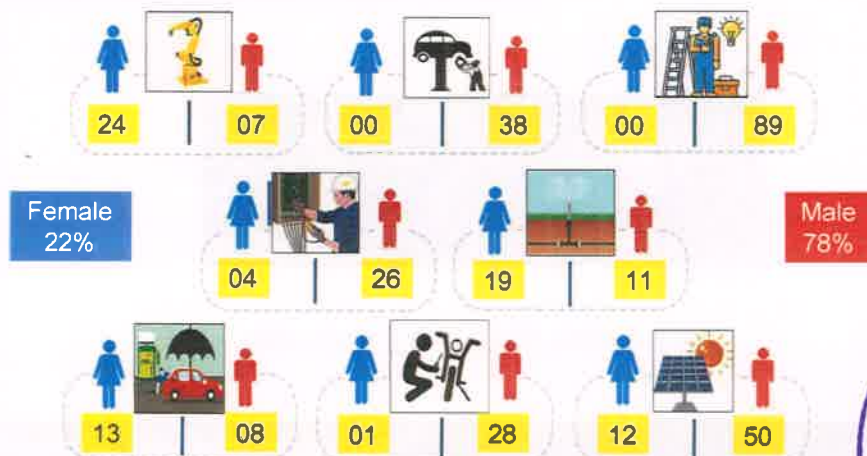
Target Enrolment : 375
Total Enrolment : 330

Gender-Wise Enrolment across villages



KUSHAL Domains: Gender Wise Enrolment

Transforming Skills



KUSHAL Domains: Salient Training Features

Transforming Skills

Technical Training Schedule in Village (Monday to Saturday)		Technical Training Schedule at University Campus (Monday to Saturday)	
9:00 AM to 11:00 AM	Theory session	9:00 AM to 11:00 AM	Theory session
11:30 AM to 1:30 PM	Hands on session	11:30 AM to 1:30 PM	Hands on session
2.30 PM to 4.30 PM and 5:00 PM to 6:00 PM	Sessions towards development of skills to confront on-field situations	2.30 PM to 4.30 PM	Hands on Session
		5:00 PM to 6:00 PM	Discussion on Industrial problems
	<ul style="list-style-type: none"> Weekly Expert Lectures Training Sessions through Industry Persons Expert Lectures on Micro-Entrepreneurship Development Field Training Examination and Certification 		<ul style="list-style-type: none"> Weekly Expert Lectures Training Sessions through Industry Persons Expert Lectures on Micro-Entrepreneurship Development Field Training Examination and Certification



KUSHAL Activity @ Chikalthan & Nagad

Transforming Skills

Glimpses of Major Achievements

- Mass Awareness Programme: 13
- Participants involved in awareness: 689
- Total Beneficiaries: 91
- Household involved: 67



Sr. No.	Activities	No. of Trainees
1	Automated irrigation for cultivation land	09
2	Domestic electric wiring and pump repairing	34
3	Solar Panel Installation	41
4	Vehicle servicing	07

KUSHAL Activity @ Narsingpur & Lohgaon

Transforming Skills

Glimpses of Major Achievements

- Mass Awareness Programme: 15
- Participants involved in awareness: 369
- Total Beneficiaries: 178
- Household involved: 168

Sr. No.	Activities	No. of Trainees
1	Automated irrigation for cultivation land	10
2	Domestic electric wiring and pump repairing	36
3	Solar Panel Installation	10
4	Vehicle servicing	13
5	Pollution Under Control	10
6	Industrial Robotics	31
7	Wheel Alignment and Balancing	38
8	PLC and Control Panel	30



KUSHAL Activity @ Andhaner & Deogaon

Transforming Skills

Glimpses of Major Achievements

- Mass Awareness Programme: 11
- Participants involved in awareness: 156
- Total Beneficiaries: 61
- Household involved: 48



Sr. No.	Activities	No. of Trainees
1	Automated irrigation for cultivation land	11
2	Domestic electric wiring and pump repairing	19
3	Solar Panel Installation	11
4	Vehicle servicing	09
5	Pollution Under Control	11

Glimpses of Activities

Transforming Skills



Mass Awareness



Beneficiary at Field



Electrical Repairing Shop



Door to Door Awareness



Exhaustive Hands on Sessions



Garage & Spare Parts Shop

Glimpses of Activities

Transforming Skills



Door to Door Awareness



Hands on Sessions



Field Installations for Training



Awareness Drives



Hands on Sessions



Theory Session

Glimpses of Activities

Transforming Skills



Awareness Drives



Hands on Sessions



Exhibition on S&T Van



Awareness Drives



Hands on Sessions



Exhibition on S&T Van

S & T Intervention

Transforming Skills

Activities : 1. Product Development; 2. Training Set-ups for Knowledge Dissemination



Mobile Operated and Soil Moisture based Motor Starter Controller at significantly lower commercial rate designed and developed in house

(Product Development)

- A simplistic demonstration cum real time applicable training module
- Mobile based & Sensor Based operation
- Assembly and Dismantling possible
- Training of manufacturing and training of circuit can be provided
- Possibility of self entrepreneurship after gaining knowledge

S & T Intervention

Transforming Skills

Activities : 1. Product Development; 2. Training Set-ups for Knowledge Dissemination



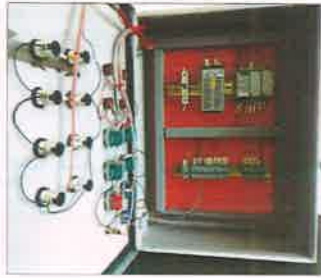
Specialized Training Equipment for Household Wiring Training (In-house designed and developed) (Knowledge Dissemination)

- A realistic training module for training in household wiring
- Net-Meter and Mains wiring possible
- Concealed and Conduit wiring possible
- Staircase wiring possible
- Multi socket assemblies , ceiling fan wiring possible
- Scope of Inverter and solar panel linking

S & T Intervention

Transforming Skills

Activities : 1. Product Development; 2. Training Set-ups for Knowledge



Specialized Training Equipment for PLC programming Training (In-house designed and developed) (Knowledge Dissemination)

- Fully industry grade training panel
- Training in basic automated control operation in industries possible
- Training in Discreet Control Possible
- Training in Continuous control possible
- Training with Interfacing of real time units possible

S & T Intervention

Transforming Skills

Activities : 1. Product Development; 2. Training Set-ups for Knowledge



Specialized Training Equipment for Control Panel Wiring Training (In-house designed and developed) Installed at DDU-KK (Knowledge Dissemination)

- Fully industry grade training panel
- Training with main busbar wiring possible
- Training with safety switchgears possible
- Training with 3 phase motor wiring possible
- Training with motor safety switchgear possible
- Training with interfacing of CT, and meters possible

S & T Intervention

Transforming Skills

Activities : Training Set-ups for Knowledge Dissemination



Specialized Training Equipment for Complete Solar Panel and Solar Pump Installation Set Up (In-house designed) (Knowledge Dissemination)

- Fully industry grade training panel for 1 KW generation
- Training with panel installation possible
- Training with solar panel and interfacing with solar inverter and battery possible
- Training with installation of solar pump possible
- On-grid and off-grid installation training possible

S & T Intervention

Transforming Skills

Outcome of S & T Research (Inprocess)

Prototype under development

An innovative set up for actuation of alarm in case of excessive emission of prescribed pollutants from two wheeler exhaust

Specialized Training Equipment for Vehicle Exhaust Alarm Machine (In-house designed and developed) (Knowledge Dissemination & Possible Product)

Activities : Training Set-ups for Knowledge Dissemination



Special Purpose Vehicle for purpose of mobile training
(In-house designed and Developed)
(Knowledge Dissemination & Possible Product)

- Taking the lab to remote rural areas
- The special purpose vehicle houses a modular lab containing training scopes in-
 - Solar power
 - PLC programming
 - PUC operation
 - Automated irrigation equipment
 - Two wheeler engine operation demonstration
 - Household wiring
 - Basic robot operation demonstration

Output Indicators (Cumulative Figure)

Sr No.	Output Indicator	Outcome	Remark
01	New technologies/ techniques/ tools/processes developed	01	Low Cost Exhaust Tester is outcome of Research towards low cost detection of vehicle pollution
02	Technologies/ techniques/ tools deployed (existing technologies)	06	<ul style="list-style-type: none"> • Science and Technology Van • Mobile Operated Irrigation Pump Controller (Trainer Set Up and Product) • Domestic/Household Wiring Training Setup • Mobile Solar Panel, Pump and Inverter Installation Training Set Up • Programmable Logic Controller Trainer Panel • Control Panel Wiring Trainer Set Up
03	Technologies field tested (new and modulated technologies)	06* <small>*Considering Covid-19 combat technologies developed</small>	<ul style="list-style-type: none"> • Community Level hand sanitizer dispenser • Personal Hand Sanitizer Dispenser • Foot Operated Door Opener • Sanitizer Dispenser Tunnel • UV Germicidal Box • Low Cost Emergency Light

Output Indicators (Cumulative Figure)

Sr No.	Output Indicator	Outcome	Remark
04	Technologies that can be transferred / commercialized	01	Mobile Operated Irrigation Pump Controller
05	Manuals prepared	10	-----
06	IPR generated	01 (Submitted) 01 (In process)	<ul style="list-style-type: none"> • Design application has been submitted for community level hand sanitizer dispenser • Patent is in process of submission for 01 intervention
07	Awareness leaflets, COVID - 19 Handbook developed and published	02	-----
08	Short Duration Video	33	-----

COVID - 19 : Technologies Developed



Community level automatic sanitizer dispenser



Sanitizer Tunnel



Personal Automatic Sanitizer Dispenser



UV-Disinfection Chamber

Low Cost Emergency Light



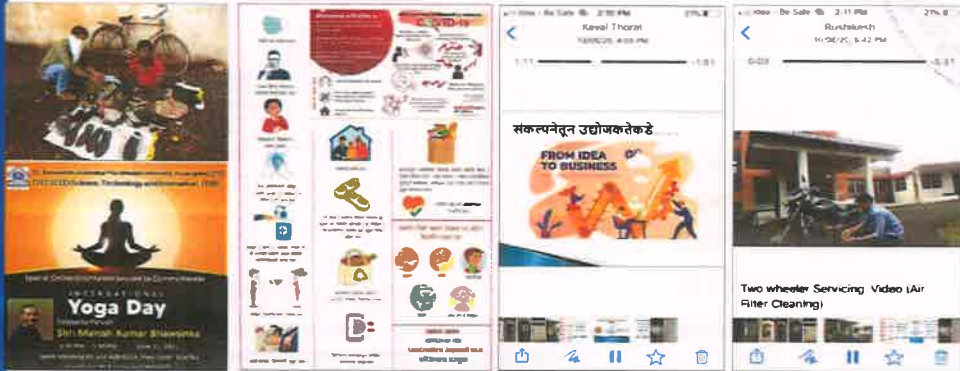
Foot Operated Door Opener/Closer



KUSHAL Activity

Transforming Skills

COVID - 19 : Special Activities



Prominent Success Stories

Transforming Skills

Creation of employment opportunities- 78

Service and Installation in the field of Domestic Electric Wiring/Appliance Repairing	07
Professional Electrician	24
Agricultural and Domestic Pump Repairing	08
2 - Wheeler Servicing	14
Solar Panel Installation	12
Selling and Maintenance of Automated Irrigation Machine	06
PLC based Control Panel Technician	05
Wheel Alignment and Balancing	03



Linkages Created

Transforming Skills

Linkages Created for Training and employment generation- 07

- **Samarth Enterprises, Aurangabad** (For Solar Installation domain job opportunities)
- **Agro - Sakal, Aurangabad** (For Electrical House-Hold Wiring domain job opportunities)
- **Hero Motor Corp, Aurangabad** (For 2 Wheeler Servicing related opportunities)
- **Aarohan Technologies, Aurangabad** (for PCC/ MCC panel related opportunities)
- **Sumannajali Enterprises, Aurangabad** (for PLC based Control Panel related opportunities)
- **Adinath Enterprises, Aurangabad** (for Industrial Robotics programming and maintenance related opportunities)
- **Overall support towards placement of trained candidates in requisite domains has been assured by MASSIA (through benevolent support of Mr. D. Athwale, Member of SC/ST High Power Committee (MSME))**



Prominent Success Stories

Transforming Skills

Micro-Entrepreneurship Generated 03 (06 employments generated)



Electrical Repairing/ Commodity Shop at Chikalthan



2 Wheeler Garage at Chikalthan



2 Wheeler Garage at Narsingpur

CSTURI Activity

CSTURI Activity



SKILLS TRAINING



CAREER COUNSELLING



Generic Objectives

1. Technology Training for basic, intermediate and advance skill training programs
2. Career Counselling to the students/participants those are skilled during program
3. Encourage stakeholder to for establishing own micro enterprises and service business or attend service sector
4. Encourage stakeholder to use developed technology and transfer technology for its use commercial use

CSTURI Training Domains

Technology Training for basic, intermediate and advance skill training programs

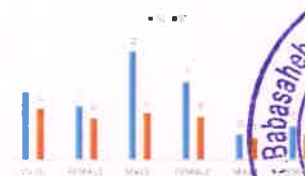
Activities Undertaken

Program Name	Course Name	Qualification
Basic Skill Program	Basic Computer Skill	10+2
	Open Office	
	Desktop Publishing	
	Graphics Design	
Intermediate Skill Program	Network Design	Under Graduate
	Computer Animation	
	Computer Maintenance	
	Mobile Maintenance	
Advance Skill Program	Software Testing	Post Graduate
	Cyber Security	
	Network Administration	
	Mobile App Development	
	Internet of Things	
	Linux Administration	

At a Glance Figures

Target Enrolment : 375
 Total Enrolment : 444
 Target Achieved : 100 %

GENDER-WISE ENROLMENT ACROSS VILLAGES



CSTURI Domains: Gender Wise Taking of Courses

Students in Activity

Name of Village	Category	Gender		Total
		Male	Female	
1 & 4	SC	50	40	159
	ST	38	31	Male-55.34% Female-44.65%
2 & 3	SC	81	58	206
	ST	35	32	Male-56.31% Female-43.68%
3 & 6	SC	19	25	79
	ST	16	19	Male-44.30% Female-55.69%
Total		239 (53.82%)	205 (46.17%)	444

Intermediate Skill Development Program

Name of Course	Chikalthan		Narsingpur		Andhaner		Total
	Male	Female	Male	Female	Male	Female	
Mobile Maintenance	3	3	5	1	11	10	33
Computer Maintenance	8	1	16	3	11	10	49
Network Design	1	3	6	2	0	0	12
Computer Animation	1	3	7	3	0	0	14
Total	13	10	34	9	11	10	87

At Three Villages

Male - 33.78% SC Female - 27.70%
 ST Male - 20.04% ST Female - 18.46%

Basic Skill Development Program

Name of Course	Chikalthan		Narsingpur		Andhaner		Total
	Male	Female	Male	Female	Male	Female	
Basic Computer Skills	34	15	36	13	18	11	127
Desktop Publishing (DTP)	25	14	32	12	18	11	112
Graphics Design	4	7	1	1	0	0	13
Open Office	7	5	1	1	0	0	14
Total	70	41	70	27	36	22	266

Advance Skill Development Program

Name of Course	Chikalthan		Narsingpur		Andhaner		Total
	Male	Female	Male	Female	Male	Female	
Software Testing	4	1	0	0	0	0	5
Cyber Security	3	3	12	6	0	0	24
Mobile Application Development	4	1	0	1	0	0	6
Network Administrations	1	2	0	1	0	0	4
Internet of Things	2	1	16	5	0	0	24
Linux Administrations	2	1	17	8	0	0	28
Total	16	9	45	21	0	0	91

Basic Skill Development Program - 59.90% SC & ST Enrolments
 Intermediate Skill Development Program - 19.59% SC & ST Enrolments
 Advance Skill Development Program - 20.49% SC & ST Enrolments
 Around 46.17% of Female Participants

CSTURI Domains: Salient Training Features

Transforming Skills

Training sessions : 07 days in a week.

Classes used to start from morning 7:00 AM.

There were 07 sessions conducted regularly;

Every Sunday we have taken extra lecture slow learner and fast learner. Special Sunday lecture Series for student.

(A) 7:00 AM to 08:30 AM (B) 08:30 AM to 10:00 AM (C) 10:00 AM to 11.30 AM

(D) 11:30 AM to 01:00 PM (E) 02:00 PM to 03:30 PM (F) 04:00 PM to 05:30 PM

(G) 05:30 PM to 07:00 PM

While the morning and half of late afternoon sessions were dedicated for theoretical training and demonstrations, rest of the sessions were completely hands –on. The last hour used to be the wrapping up session.

CSTURI Activity @ Chikalthan & Nagad

Transforming Skills

Glimpses of Major Achievements

- Mass Awareness Programme: 11
- Participants involved in awareness: 689
- Total Beneficiaries: 159
- Household involved: 63

Sr. No.	Activities	No. of Trainees
1	Basic Skill Development Program	111
2	Intermediate Skill Development Program	23
3	Advance Skill Development Program	25



CSTURI Activity @ Narsingpur & Lohgaon

Transforming Skills

Glimpses of Major Achievements

- Mass Awareness Programme: 11
- Participants involved in awareness: 655
- Total Beneficiaries: 206
- Household involved: 83

Sr. No.	Activities	No. of Trainees
1	Basic Skill Development Program	97
2	Intermediate Skill Development Program	43
3	Advance Skill Development Program	66



CSTURI Activity @ Andhaner & Deogaon

Transforming Skills

Glimpses of Major Achievements

- Mass Awareness Programme: 09
- Participants involved in awareness: 210
- Total Beneficiaries: 79
- Household involved: 52

Sr. No.	Activities	No. of Trainees
1	Basic Skill Development Program	58
2	Intermediate Skill Development Program	21
3	Advance Skill Development Program	00



Glimpses of Activities

Transforming Skills



Mass Awareness



Conduction of Theory Lectures



Certificate Distribution



Door to Door Awareness



Exhaustive Hands on Sessions



CSTURL Multiservice Shop

Glimpses of Activities

Transforming Skills



Mass Awareness



Conduction of Theory Lectures



Certificate Distribution



Door to Door Awareness



Exhaustive Hands on Sessions



Eklavya Multiservice Shop

Glimpses of Activities

Transforming Skills



Mass Awareness



Conduction of Theory Lectures



Exhaustive Hands on Sessions



Door to Door Awareness



Exhaustive Hands on Sessions



Exam Conduction

S & T Intervention

Transforming Skills

Proposed Activities : 1. Village Information System (VIS)



Purpose

- To develop Web based GIS Application for Village.
- It will provide all relevant information at the click of the button.
- To make available this information on the Bhuvan Web site and STI Hub Portal.

Significance and Contribution

- No such Village Information System is made in Marathwada Region.
- This information will also available on Bhuvan website.

S & T Intervention

Transforming Skills

Proposed Activities : 2. QR Code Scanner for medicinal plants for its easy identifications



Purpose

- Generate QR Code for medicinal plants in Gautala Sanctuary.
- An application will be made that will be used to read the QR Code.
- The QR Codes will be helpful to find the information of the respective plant.

Significance and Contribution

- Gautala sanctuary is a protected forest area in Aurangabad, Maharashtra, India.
- It holds many medicinal plants which are found commonly and very rarely along with wildlife sanctuary.
- The QR coding will help to provide the information of all these plants to both who are aware of them and those who are not aware of these plants information.
- The QR coding will help for increasing more visitors to the forest.
- No such QR code so far made Gautala Sanctuary.

Work Done

- <http://www.stihub.org/intervention.php>

S & T Intervention

Transforming Skills

Proposed Activities : 3. YouTube Channel



Purpose

- To develop YouTube Channel.

Significance and Contribution

- Online teaching and getting aware with technology

Work Done

- YouTube Channels Created https://www.youtube.com/channel/UCTT3W_S5XUwJa0KBM7vLztg
- More then 90 Students are watching CSTURI

S & T Intervention

Transforming Skills

Proposed Activities : 4. Web Portal for DST-STI HUB



Purpose

- To Provide the information of the project and facilities.

Significance and Contribution

- To get the information about the project and details of facilities provided all on one platform.

Work Done

- Development under Progress <http://www.stihub.org/>

S & T Intervention

Transforming Skills

Proposed Activities : 5. Weather Portal



Purpose

- To provide the weather details of the location/village.

Significance and Contribution

- People should be updated with the weather and can make the better decision.

Work Done

- <http://www.stihub.org/intervention.php>

Output Indicators (cumulative Figure)

Sr. No.	Output Indicator	Outcome	Remark
01	New technologies/ techniques/ tools/processes developed	05	1. Village Information System 2. QR Code Scanner for medicinal plants for its easy identifications
02	Technologies/ techniques/ tools deployed (existing technologies)	05	3. YouTube Channel 4. Web Portal for DST-STI HUB 5. Weather Portal
03	Technologies field tested (new and modulated technologies)	08* <small>*Considering Covid-19 combat technologies developed</small>	1. Village Information System 2. QR Code Scanner for medicinal plants for its easy identifications 3. YouTube Channel 4. Web Portal for DST-STI HUB 5. Weather Portal 6. SARATHI APP 7. MAZISHALA APP 8. KRISHI SETU APP

Output Indicators (cumulative Figure)

Sr. No.	Output Indicator	Outcome	Remark
04	Reports/Manuals generated	04	Developed in Regional Language (Marathi) 1. Basic Computer Skills 2. Computer Graphics 3. Desktop Publishing (DTP) 4. Open Office
05	Paper published	03	Paper In Progress: 1. Climate Smart Agriculture for soil properties and Climate Parameters using Artificial Intelligence and Machine Learning 2. Digitization of medicinal plants in Gautala Autram Ghat with Quick Response Code 3. Web Based GIS Village Information System: A Review
06	Awareness leaflets, COVID - 19 Handbook developed and published	awareness leaflets-1000 pamphlets-2500	
07	Short Duration Video	20	CSTURI YouTube Channel

CSTURI Activity @ COVID - 19

Technology Developed During Pandemic Time: 1. SARATHI APP



Purpose

- To Create an Android Application
- It will provide awareness for COVID-19 and all information will be available at one app.

Significance and Contribution

- This app will help to get more correct information about COVID-19
- It will provide information such as protective measures, travel safety, immunity boosters, Myths, Does and Don'ts, Helpline available, etc.

Work Done

- The development of App is completed.

Department of Computer Science and IT
Dr. Babasaheb Ambedkar Marathwada University Aurangabad.

CSTURI Activity @ COVID - 19

Technology Developed During Pandemic Time: 2. MAZISHALA APP



Purpose

- To provide "School From Home"

Significance and Contribution

- Education of the students will not suffer even in Lockdown or Pandemic period
- Students will be able to download and study the syllabus as per their area and school.

Work Done

- The development of App is completed and available on Play Store.

Output

- The development of App is completed.

MaziShala App View

MaziShala Review and Downloads



CSTURI Activity @ COVID - 19

Transforming Skills

Technology Developed During Pandemic Time: 3. KRISHI SETU



Purpose

- To Provide online Marketing.

Significance and Contribution

- It will provide the online market to farmers.
- It will help to improve the earning of farmers.

Work Done

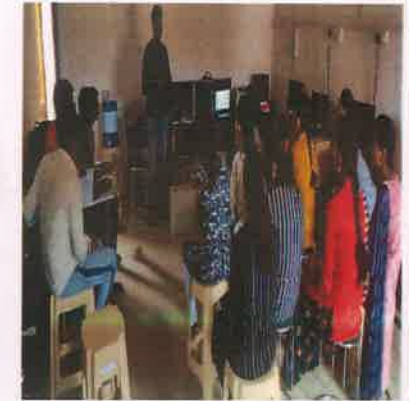
- The development of App is under progress.

Prominent Success Stories

Transforming Skills

Creation of employment opportunities-20

Entrepreneurial Ventures	06
Job	14



Linkages Created

Transforming Skills

Linkages Created for Training and employment generation

- Janki Devi Bajaj Foundations, Aurangabad
- Maharashtra Knowledge Corporation Limited (MKCL)
- Spoken Tutorials



MKCL

Creating a Knowledge Lit World



Spoken Tutorials



Prominent Success Stories

Transforming Skills

Micro-Entrepreneurship Generated 06 (14 employments generated)



Glimpses of Soil Testing Camp



सायन्स हबतर्फे माती परीक्षण



संवादात्मक माती मूल्यांकन
 जीवशास्त्रज्ञ डॉ. बाबुसाहेब कर्वे यांच्या अध्यक्षतेखाली आयोजित करण्यात आलेले सायन्स हबतर्फे माती परीक्षण कार्यक्रमाचे उद्घाटन करण्यात आले.

पंचगंगा तालुक्यातील वस्तीगाव येथील सायन्स हबमध्ये आज सायन्स हबच्या माती परीक्षण कार्यक्रमाचा शुभारंभ करण्यात आला. यावेळी डॉ. बाबुसाहेब कर्वे यांच्या अध्यक्षतेखाली आयोजित करण्यात आलेले सायन्स हबतर्फे माती परीक्षण कार्यक्रमाचे उद्घाटन करण्यात आले. यावेळी डॉ. बाबुसाहेब कर्वे यांच्या अध्यक्षतेखाली आयोजित करण्यात आलेले सायन्स हबतर्फे माती परीक्षण कार्यक्रमाचे उद्घाटन करण्यात आले.



In collaboration with MIT college, CSTURI has arrange soil testing program for the villagers of Chikalthan in the month of March 2021. More than 100 farmers were benefited.

Glimpses of Soil Testing Workshop



Glimpses of Soil Testing Camp

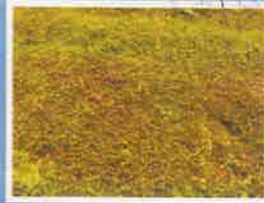


HARIT Activity



HARIT ACTIVITY

Transforming Skills



OBJECTIVES: HARIT ACTIVITY

Transforming Skills

- Spreading traditional knowledge of the medicinal plants
- Training for sustainable collection of medicinal plants from the wild habitats.
- Training for sustainably cultivation and harvesting of medicinal plants in the agriculture land.



HARIT Activity

Transforming Skills

Generic Objectives

1. Cultivation of Medicinal Plants in the Agriculture land.
2. Sustainable collection of Medicinal Plants from the wild habitats.



HARIT Activity @ CHIKALTHAN & NAGAD

Transforming Skills

Objective -1 Cultivation of Medicinal Plants in the Agriculture land.

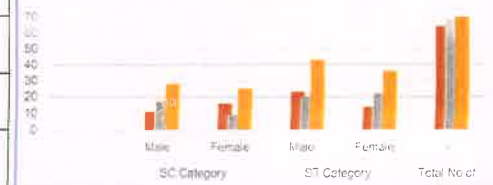
Sr. No.	Projected Deliverables	
1	Awareness Programme	07
2	Enrolment of Farmers	61
3	Cultivation of Shatavari	08
	Cultivation of Ashwagandha.	06
	Sustainable collection of Medicinal Plants from the wild habitat.	53

Progress till Date

Target Enrolment : 125

Total Enrolment : 61

Enrolment



■ No. of Student Below 18 years
 ■ No. of Student Between 18 to 35
 ■ No. of Student Above 35 years
 ■ No. of Student Total No of Participant



HARIT Activity @ Chikalthan & Nagad

Transforming Skills

Glimpses of Harvesting of Shatavari roots



Enrolments : Total Beneficiaries: 61 SC: 30 ST: 31

HARIT Activity

Transforming Skills

Farmer from Chikalthan Showing the yield of Shatavari roots from one plant at RCFC- NMPB – WRC Pune for Marketing



HARIT Activity

Transforming Skills

Visit for Shatavari Peeling machine exploration and Successful Medicinal farming by Mr. Ganesh Rathod at Kathkumbh, Amravati District, Maharashtra.



HARIT Activity : The total yield of plant roots at one harvest in Chikalthan is 4.3 Tonnes from 9 Gunthas



Record yield is 19.11 Tonnes per acre .



Felicitation of Farmer for Highest Production of Shatawari



HARIT: Achievement at Chikalthan & Nagad

We have 61 enrolment from SC/ST Category

Sr. No	Activities	Projected Deliverable	Training Imparted	Actual Beneficiary through livelihood	Entrepreneurship started/ employment generated
1	Sustainable collection of Medicinal Plants from the wild habitat.	30 youths (Benefitted through livelihood)	53 persons (SC/ST category)	53 persons (SC/ST category)	1 micro entrepreneur
2	Cultivation of Medicinal Plants in the Agriculture land.	10 persons (Benefitted through livelihood)	14 persons (SC/ST category)	14 persons (SC/ST category)	

HARIT Activity @ CHIKALTHAN & NAGAD

Transforming Skills

Objective -2 Sustainable collection of Medicinal Plants from the wild habitat.

Sr. No.	Project Deliverables	Output
1	Collection of Gums from trees with medicinal importance.	<ul style="list-style-type: none"> Beneficiaries Covered Under Project -53 Training Programme Conducted- Regularly during August 2019 to January 2020 as per Training schedule.
2	Collection of roots/ rhizomes from plants with medicinal importance.	<ul style="list-style-type: none"> Male participants - 27 Female Participant- 26 Skill Development Programme Conducted- 01
3	Collection of fruits having medicinal properties.	<ul style="list-style-type: none"> Manpower Trained- Regularly during August 2019 to January 2020 Youth Employed - 01. (01 Participant has opened his own shop.

HARIT Activity @ NARSINGPUR & LOHGAON

Transforming Skills

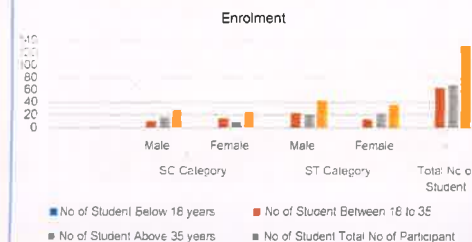
Objective -1 Cultivation of Medicinal Plants in the Agriculture land.

Sr. No.	Projected Deliverables	
1	Awareness Programme	05
2	Enrolment of Farmers	132
3	Market Survey, searching buyers for Shatawari	05

Progress till Date

Target Enrolment : 125

Total Enrolment : 132



Achievements



Awareness and meeting with local people at village



Lectures on Ayurveda By Prof. A. S. Dhabe

Achievements



Shopopening by Sanjay Birhare

HARIT Activity

Transforming Skills

Sustainable collection of Medicinal Plants from the wild habitat.

Sr. No.	Project Deliverables	Output
1	Collection of Gums from trees with medicinal importance.	Beneficiaries Covered Under Project 132
2	Collection of roots/ rhizomes from plants with medicinal importance.	Training Programme Conducted- Regularly during February and March Male participants - 71 Female Participant- 61
3	Collection of fruits having medicinal properties.	Skill Development Programme Conducted- 07 Manpower Trained- Regularly during July November Youth Employed – Training under process (entrepreneur development)

HARIT Activity @ ANDHANER & DEOGAON

Transforming Skills

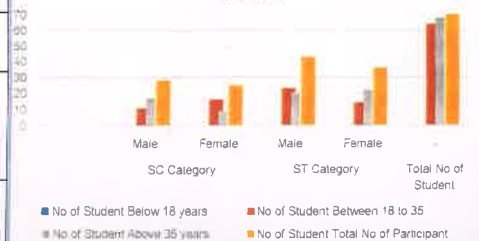
Objective -1 Cultivation of Medicinal Plants in the Agriculture land.

Sr. No.	Projected Deliverables	
1	Awareness Programme	04
2	Enrolment of Beneficiaries	46
3	Distribution of Anantmul, Adulsa, Sonamukhi, Gulwel and Sarpagandha plants to Farmers	14
4	Soil testing of samples of farmers field in collaboration with CSTURI	17

Progress till Date

Target Enrolment : 125

Total Enrolment : 46
Enrolment



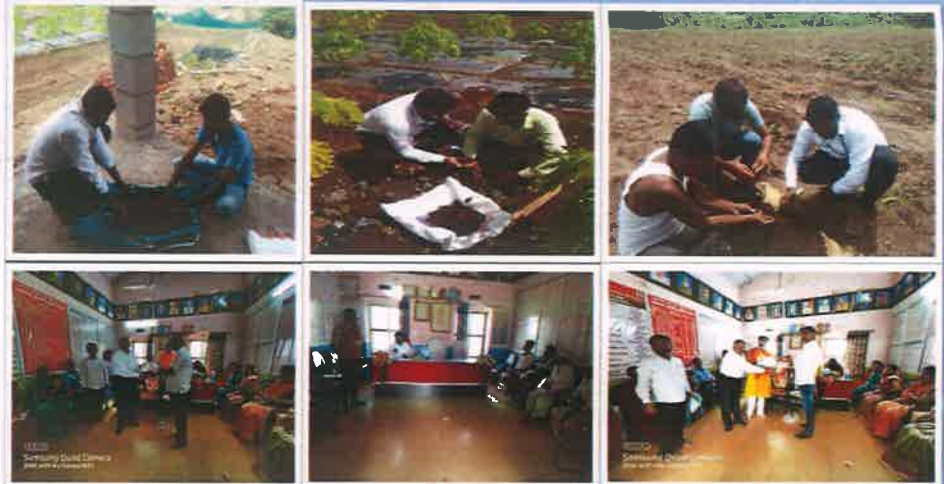
HARIT Activity

Transforming Skills

Objective -2 Sustainable collection of Medicinal Plants from the wild habitat.

Sr. No.	Project Deliverables	Output
1	Collection of Gums from trees with medicinal importance.	Beneficiaries Covered Under Project 46 Training Programme Conducted- Regularly during
2	Collection of roots/ rhizomes from plants with medicinal importance.	Male participants - 27 Female Participant- 19 Skill Development Programme Conducted- 01 Manpower Trained- Regularly January to June 2022
3	Collection of fruits having medicinal properties.	Youth Employed - Training under process (01 Micro-entrepreneur development)

Achievements at Andhaner Village Soil Testing at Farmers Field



Beneficiary felicitation

National seminar on Medicinal plants conducted at Department of Botany



Health Programme on the occasion of women day



Cultivation of Medicinal plants



Cultivation of Bramhi at Mr. Rajendra Satdive's Field



Cultivation Giloy at Mr. Deepak Galkwad Field in Andhaner Village

Sustainable collection of *Gloriosa superba* roots and Anantmul from Gautala Forest

Meeting of Farmers and NGO (Kishi Doot Vishwa Vikas Foundation for motivation of Medicinal Plant Farming



Awareness program (Door to Door)



Cultivation of Anantmul

S & T Intervention

Transforming Skills

Proposed Activities : **Objective 1: Spreading Knowledge for sustainable collection of Medicinal parts of plants.**



Purpose

- To transmit Knowledge of medicinal plants from one to next generation.

Significance and Contribution

- Participants will understand the properties and uses of medicinal plants in their common disorders.

Work Done

- beneficiaries are trained for sustainable collection of Medicinal parts of plants by keeping ecofriendly approach.

S & T Intervention

Transforming Skills

Proposed Activities : **Objective 1: Sustainable farming of medicinal plants in agriculture land.**



Purpose

- To train farmers towards rotation of crop plants with medicinal plants to increase their income and maintain soil fertility.

Significance and Contribution

The demand of Medicinal plants is continuously increasing and their cultivation in agriculture land has been proved to be economically beneficial to the 14 Farmers.

Work Done

- 14 Farmers from Chikalthan were trained for sustainable farming Shatavari. 14 Farmers of Andhaner have cultivated Anantmul, Adulsa, Sonamukhi, Gulwel and Sarpagandha plants medicinal plants in their field for 2022-2023.

Output Indicators

Output	Outcome	Impact
<ul style="list-style-type: none"> Report/ Manuals Generated - 01 Number of micro-enterprises created: 02 Ayurvedic Ayushadhi Vikri Kendra Shree Swami Samartha Ayurvedic Ayushadhi Number of youth/women Trained through project interventions : 239 	<p>Livelihood Diversification (Farmland Non-Farm): Agriculture</p> <ul style="list-style-type: none"> Increase in household income: 80-90% Increase in crop productivity about 100% 14 Farmers from Chikalthan and 14 Farmers trained to cultivate Brahmi Anantmul, Adulsa, Sonamukhi, Gulwel and Sarpagandha crops. Total 239 candidates have joined the course. Out of them 231 are able to identify, collect medicinal plants. Number of Entrepreneurs created: 02 	<ul style="list-style-type: none"> Traditional knowledge of Various Medicinal plants and their uses made available to farmers and beneficiaries Beneficiary got Primary health care knowledge regarding common disorders and their home remedies. 02 Participant after training had set up own herbal shops. Other farmers get attracted towards medicinal farming than the traditional farming.

Village name	Male	Female
1 & 4 (61 Beneficiary)	39	22
2 & 5 (132 Beneficiary)	71	61
3 & 6 (46 Beneficiary)	28	18

Linkages Created

Transforming Skills

- Dhoot papeshwar Pvt. Ltd, Panvel, Navi Mumbai
- Sandu Pharmaceuticals, D. K. Sandu Marg, Chembur Mumbai 400071
- Dhabe Herbals, Pvt. Ltd., Jetvan Colony, Aurangabad 431002
- RCFC, Regional- cum Facilitation centre, National Medicinal Plant Board, WRC Pune for Marketing.
- Krishi Doot Vishwa Vikas Foundation.

Success Story



Shop Opening at Chikalthan and Andhaner



Cultivation of Brahmi, Anantmul and

12 Farmers of Andhaner have cultivated Anantmul, Adulsa, Sonamukhi in their field for 2022-2023



Distribution of Anantmul



Distribution of Adulsa



Thank You



Action Taken on basis of Recommendation by Experts

Recommendation : Consideration of gender neutrality, inclusion and equity in selection of beneficiaries

Action Taken:

- All inclusive awareness drive.
- Inclusion of NGOs in sensitization.
- Inclusion of noted female social activist in awareness generation.
- Special workshop on 'Women Entrepreneurship' by NGO expert.



Outreach speech by noted social activist Dr. P. Ahire



Views of workshop on women entrepreneurship by Pragati Foundation (NGO collaborator)



Special enrolment drive for lady aspirants



Action Taken on basis of Recommendation by Experts

Recommendation : Organization of a VC towards connecting NGOs with PAC members

Action Taken:

A virtual meeting was held on 6th February, 2021 through video conferencing (VC) mode to connect the NGOs with few selected members of PAC for hand holding and project development



Screen Shot of the Video Conferencing held on 6th February, 2021



Registrar,
Dr. Babasaheb Ambedkar
Marathwada University,