

Extension Activities

(Societal Connect Through Technology)



**SVERI's College of Engineering,
Pandharpur**

ICT Enabled School Education

Dr. B. P. Ronge Presenting SVERI-ICT Project at IISc Bangalore

Visit on You Tube Link of Scan QR code

<https://youtu.be/3A7qjLSWHEY>



ICT Enabled School Education

NKN connectivity to RURAL Schools



Demonstration of NKN connectivity extension to Schools for e-learning experience.

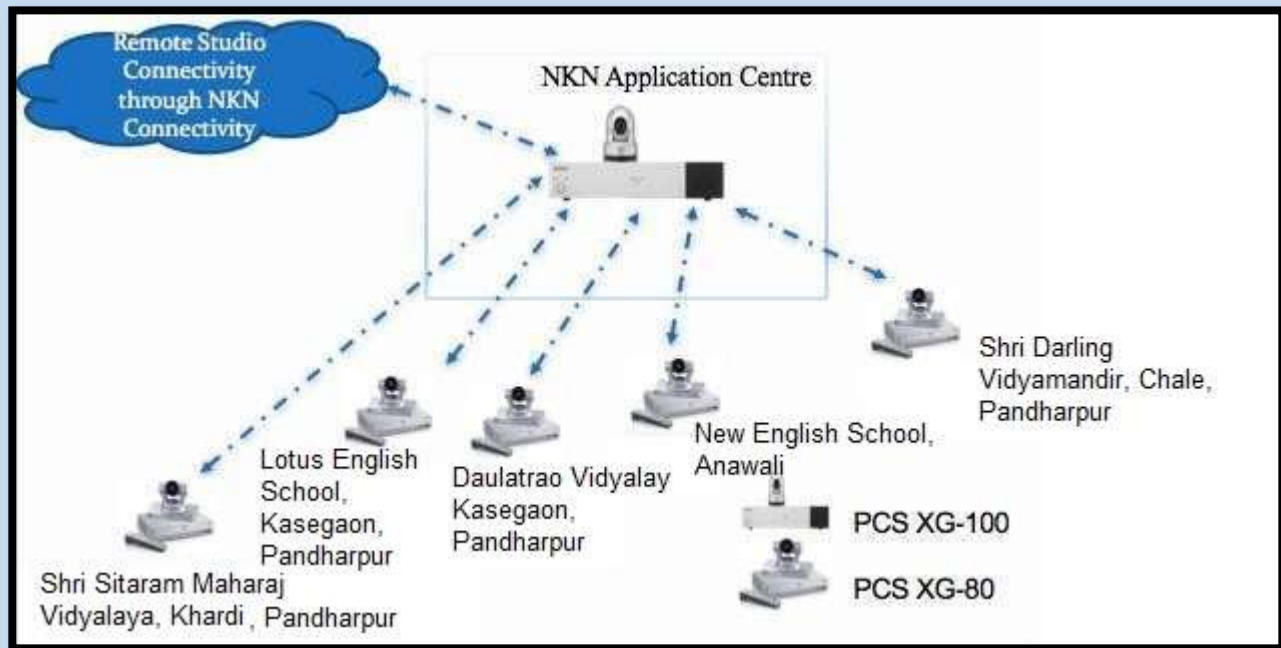
For More Information to watch video visit on:

<https://youtu.be/86RzaSMoORI>

Or Scan QR Code



Connectivity to Five Schools



Training for Usage of NKN through Tablets



Training for Student and staff Usage of Tablets



School Students with Tablets



Training for Usage of NKN through Tablets

For More Details Scan QR Code



NKN Activities



Online Interaction of Hon. Padma Vibhushan Dr. R. Chidambaram with Students

For more Details visit You Tube Link: https://youtu.be/a6wPIHJC_x0

Or Scan QR code



Impact of NKN-Enabled Schools

- Improvement in thinking and confidence level of participated students.
- Different ways of learning which are more linked with day-to-day societal problems.
- Students Self-Learning Approach: developed their local community for sharing audio and video
- Changes in School Teachers: Teaching approach is improved through open source online contents
- Pictures Animations and Videos for easy learning
- Sharing Good teachers for some of the topics through videoconferencing for students of other schools.

NKN-Enabled CILLAGE Centre

- High Performance Computational (HPC) facility GRID-GARUDA, E-Foundry developed by IIT Bombay, Collab CAD etc.
- Live Transmission Wari exhibitions
- Information support and data keep for Projects
- Weather based individual crop advisory system
- Network Monitoring System Software which records various network parameters viz. packet losses, minimum latency, maximum latency and average latency on continuous basis
- Video-Conferencing facilities to organize talks for farmers from the remote experts.
- Lab-to-Field Activity

Gram Visit

For More Details Visit to : <https://youtu.be/8OJdiSPZ9i0>

Or Scan this QR Code



Gram Visit

Under The Extension activity, students visit villages to implement village related projects like water supply system design, sewerage system design, water conservation projects, etc.



Students at Ambe Village Grampanchayat



Dr. P. M. Pawar Sir addressing to villagers during Gram Visit at Ambe



Students doing Drainage line Survey at Ambe



Creating awareness among villagers through SVERI- and ZP Student Rally



Addressing Sarapanch to Villagers at Marapur



Students Doing Survey



Drainage Road Survey

Societal Connect Through Technology

SVERI's College of Engineering, Pandharpur is committed to social welfare and understands its responsibility towards development of society. The institute is located in the vicinity of rural area. The institution strives to improve the socio-economic condition of the region. Looking towards these aspects, institute has built societal connect through technology through various societal activities as follows:



Societal Connect through various activities

Rural Human Resource Development Facility (RHRDF)

Rural Human Resource Development Facility (RHRDF)



Development of demonstration and cum-training facilities at CILLAGE

**Hon. Padma Vibhushan Dr. Anil Kakodkar, Director, BARC,
Shri. Ajit Patankar, Member, RGSTC Mumbai.**

CILLAGE: Best of City in a Village

- Set up a CILLAGE at a higher technical institution or a university in a rural domain in the Block
- Set up a number of Akrutis- technology demonstration/ practice centres , in surrounding villages

Best of the **C i t y**
Best of the **V i l l a g e**
Creates

C i l l a g e

From Group of Villages for Healthy Work – Living Environment



To minimize the gap between Urban and Rural area CILLAGE is must.

To Bring the concept in reality first pilot project in India was started at Pandharpur Under the guidance of Hon. Padma Vibhushan Dr. Anil Kakodkar, Director, Bhabha Atomic Research Center (BARC) and his Co-Worker Shri. Ajit Patankar, Member, RGSTC Mumbai.



Inauguration of RHRDF center, by Hon. Padma Vibhushan Dr. Anil Kakodkar, Director, BARC and Shri. Ajit Patankar, Member, RGSTC Mumbai.



To Initiate the CILLAGE program SVERI institute was selected due to its excellent academic record and tendency of societal work.

Integration with RHRDF

BARC Technology Demonstration facility for agricultural and rural employment generation.

➤ Key Objectives of RHRDF

- Demo facilities of BARC technologies.
- Training centre for various technologies.
- R&D for rural and agricultural technologies using SVERI Human resources.
- Technology implementation in villages using the AKRUTI module of BARC.

➤ Integration

- Small life skill projects.
- Maintaining online RHRDF data & course work.
- Organizing talks/courses for farmers through NKN Wi-Fi connectivity.

Preliminary Investigations

People's needs

Farm waste management and compost manure development

Potable drinking water

Soil testing not available locally

Farming-related training and information network

Projects identified

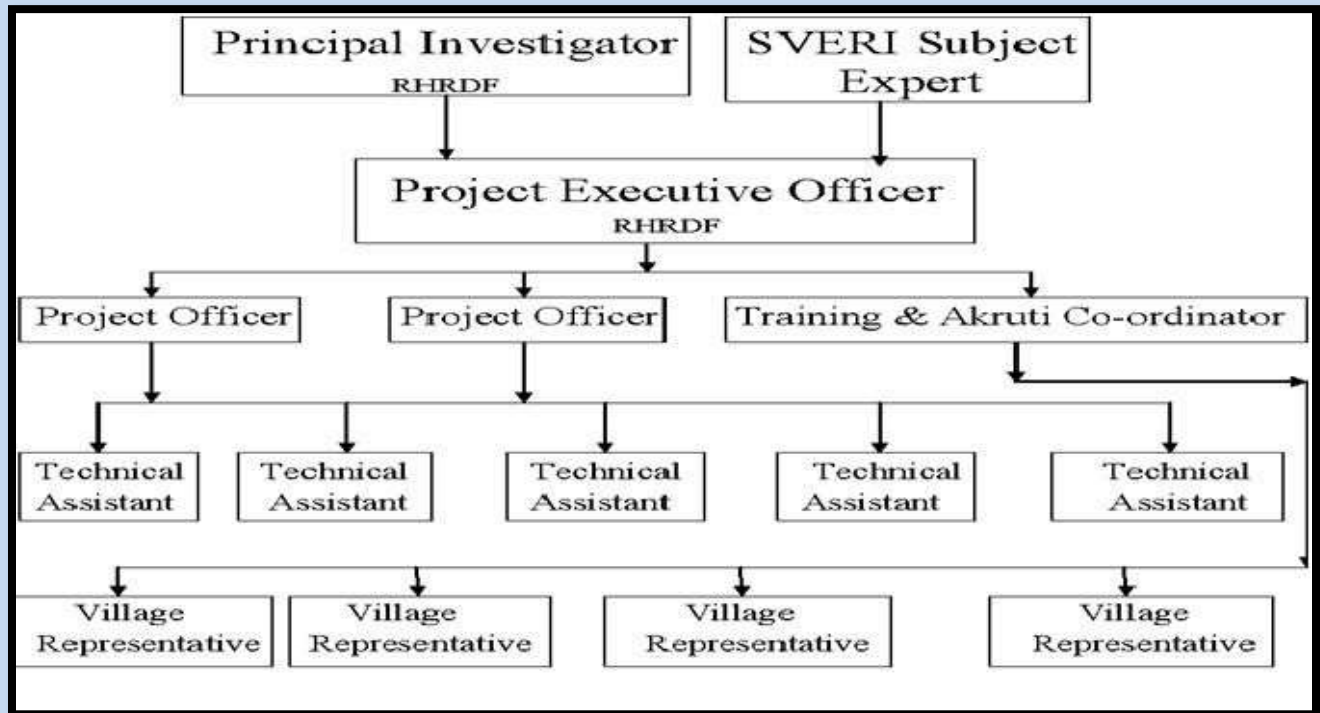
NISARGRUNA, biogas technology

Water technologies: domestic and community water filter

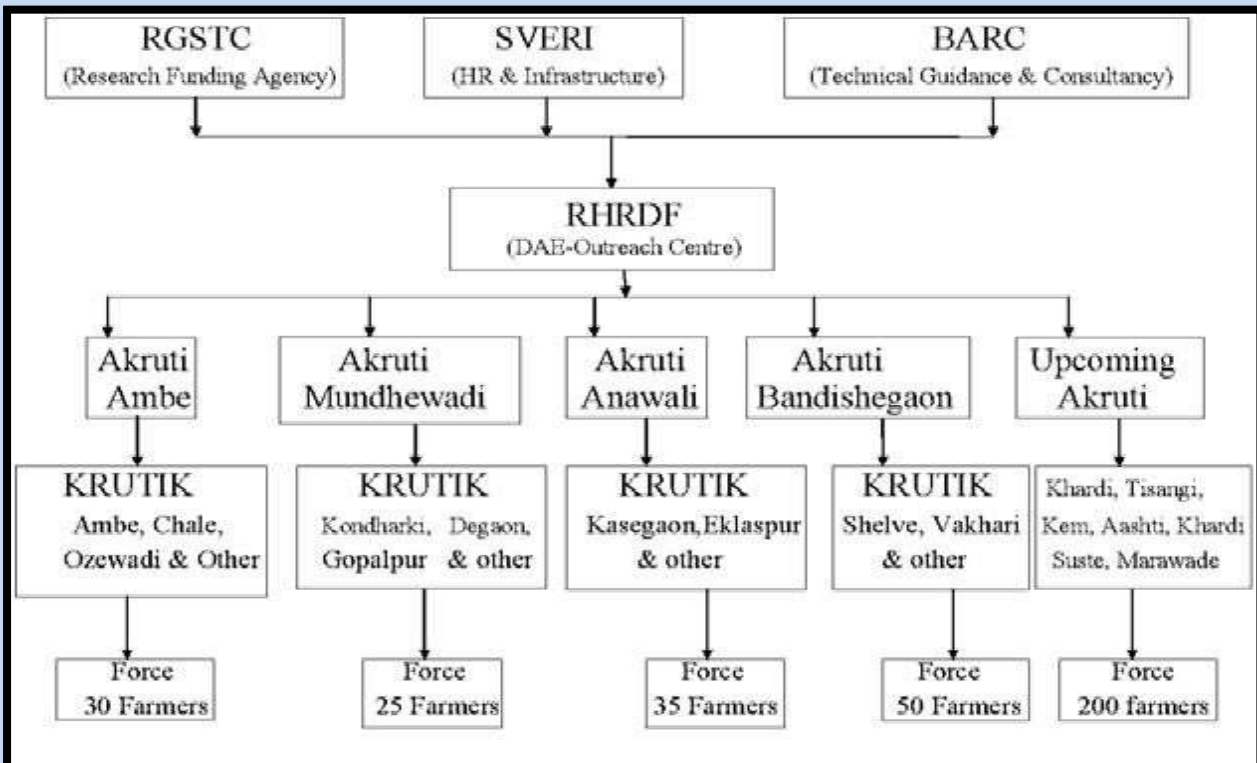
Soil Organic Carbon testing kit

With the help of NKN, training session of experts can be arranged at Rural Human and Resource Development Facility (RHRDF)

Project Team



Project Implementation



Objectives of the Project:

- To develop training facility for rural and agricultural technologies and research programme for making advancement in technologies initially accessed from BARC and development of other similar technologies.
- To deploy technology from laboratories to the field through village centers of CILLAGE.
- To develop an incubation centre for high-tech products for the rural and agriculture sector.
- To encourage technological workforce to get involved in local problems.
- To develop science and technology culture in the rural sector.

To develop training facility:

- Working space of about 30000 sqft, which include labs, office space and small training hall
- Demo Facilities of soil organic carbon testing lab, water technology lab, seed bank, Nisargruna biogas, FSD/VTD, raisin making facility, LLL, Weather Stations, RIA
- Nine Technologies are transferred and 50 BARC scientists participated in establishment of facilities along with SVERI Staff, RHRDF staff and Villager Volunteers.

Implementation Region



RHRDF activity Implement Region





Visit of Hon. Padma Vibhushan Dr. Anil Kakodkar, Director BARC, to Pandharpur – RHRDF-Akruti at Tisangi. 1st Feb 2015 Other dignitary's present-Dr. V. K. Suri (Head-Precision Engg. Division, BARC), Shri. A. M. Patankar (Member, RGSTC), Prof. B. P. Ronge (Principal, SVERI)



Hon. Padma Vibhushan Dr. Anil Kakodkar visited sankalp SHG Group who were using the FSD

To Develop Training Facility



Training the trainers by BARC scientists (Padmashri. Dr. Sharad Kale)



Awareness camps in Villages



Domestic water purifier: Community level water purifier



Foldable solar dryer: Low Cost poly-foldable solar dryer



Soil testing kit: More farmers friendly



Demonstration of use of Soil Testing Kit



Natural fiber based composite



Vibro Thermal Disinfestor is provided with Grading and cleaning facility

Shellac based Products



Development of Lac Bangle machine

For More Details visit YouTube Link: <https://youtu.be/Wkz1jrd46lQ>

Or Scan QR Code



Deploy Technology from Laboratories to the Field

Laboratory to Field Connectivity

For more details Visit to YouTube link: https://youtu.be/zsBg7U_QbZk

Or Scan QR Code



- **Nisargaruna:** 1 Tone Plant and Usage of Nisargaruna for improving Soil organic carbon and Encouragement for Small Biogas
- **Soil Organic Carbon Testing Kit:** 320 kits distributed and around 700 samples are tested at Lab. One Entrepreneur, Advanced Soil test lab developed
- **Water Filter:** 600 Water filters distributed through entrepreneurs, 2 entrepreneurs, 30 Schools
- **Seed Bank:** 124 Farmers, 84 Acres in last three seasons, 4 Entrepreneurs
- **FSD:** New development and Food Products to involve Women groups
- **Laser Land Leveler:** Understood importance of leveled land to improve the yield.



Nisargruna Biogas



Demonstration of Soil Organic Carbon Testing Kit



Installation of Water Filter



Development of Seed Bank for Local farmers



Food Drying Facility at RHRDF



Experts Meeting with Rural farmers



Laser Based land Leveler



Land Leveling Photograph

For More Details visit to You Tube Link: <https://youtu.be/ZIKcvmYNtpo>

Or Scan QR Code



Awareness Programs



Awareness Programs of Soil Testing in Rural areas



Awareness Programs for Rural Entrepreneurs



Awareness Programs for Rural Entrepreneurs



Awareness about the use of filtered water in rural areas

Activities under RHRDF



Seed Bank: Distributed for Local Farmers



Food Products to involve Women groups



Demonstration of various activities to Villagers

Mahila Bachat Gat Training Programs



Training Activity for Mahila Bachat Gat

Development of Training Course Material

- To disseminate the knowledge of technology in rural areas, a training manual book of each technology has been prepared in the local language.
- This manual book is made by using the experience while deploying and demonstrating the technology

BARC Technologies Training Course Material translated in Marathi



Deployment of AKRUTI Programs



6 Akurti Centers are established and about 10 more Akruti Centers are planned and activities are started.



Systematic approach is developed to involve villagers and cooperative sharing of technical knowledge

Exhibition of Technology developed By BARC and SVERI

SVERI- RHRDF Ashadhi Wari Exhibition of Technology Developed

Visit to following You tube link :

<https://youtu.be/ax76LfgeiY8>

or Scan QR code



Exhibition of Technology developed By BARC and SVERI

Wari Exhibition

organized by

BAIF Development Research Foundation & SVERI's College of Engineering

Supported by Rajiv Gandhi Science & Technology Commission



Mobile Exhibition of RHRDF Activities at various places



Exhibitions stall at Gopalpur on 3 – 4 July 2017.



Warkari Visited an Exhibition stall at Gopalpur on 3 – 4 July 2017.

RHRDF Activities

Dr. P. M. Pawar Sir delivering talk on facilities of RHRDF in

Agro Viskas 2018 organized by

Ministry of Agriculture and farmer welfare Govt. of India.

For More details visit this link or Scan QR Code.

<https://youtu.be/NlPmql4KccY>



Technology Transfer Document





GOVERNMENT OF INDIA
BHABHA ATOMIC RESEARCH CENTRE
TECHNOLOGY TRANSFER & COLLABORATION DIVISION

Technology Transfer of following three technologies:


1. Nanocomposite Ultrafiltration Membrane Device For Domestic Drinking Water Purification
2. Dip N Drink Membrane Pouch
3. Solar energy driven portable domestic Brackish Water RO System

Under the frame work of MoU signed between BARC and SVERI for setting up Rural Human and Resources Development Facility (RHRDF) at SVERI Campus, Gopalpur, Pandharpur, Technology deployment documents of above 3 technologies are being handed over to Shri Vitthal Education & Research Institute, Gopalpur-Ranjani Road, Pandharpur, Dist Solapur, Maharashtra Pin-413304 with a non exclusive perpetual license to utilize the know how provided in the document. The documents have been prepared as guideline document for above technologies. Demonstration cum training for a day of the technologies will be arranged for SVERI at BARC as mutually agreed upon.

<p>For and on behalf of Bhabha Atomic Research Centre, Mumbai, Maharashtra</p> <p>Signature: _____</p> <p>Name & Seal: _____</p> <p>Date: 07/06/2016</p> <p>Witnesses: 1. Name: B.S.V.G. SHARMA 2. Name: D. G. K. N. N. N.</p>	<p>For and on behalf of Shri Vitthal Education & Research Institute, Pandharpur, Maharashtra</p> <p>Signature: _____</p> <p>Name & Seal: _____</p> <p>Date: 07/06/2016</p> <p>Witnesses: 1. Name: Dr. Prakash Chandra Dattar 2. Name: Dr. Kulkarni G.V.</p>
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GOVERNMENT OF INDIA
BHABHA ATOMIC RESEARCH CENTRE
TECHNOLOGY TRANSFER & COLLABORATION DIVISION

Ref: TT&CD/SM/2016/ 6695 June 10, 2016

Dear Dr. Ronge,

Sub: Agreement between BARC and SVERI, Pandharpur for Technology Transfer of following water Technologies

1. Dip N Drink Membrane Pouch
2. Solar energy driven portable domestic Brackish Water RO System
3. Nanocomposite Ultra filtration Membrane Device For Domestic Drinking Water Purification

We thankfully acknowledge receipt of 2 sets of original agreement for above subject. The subject one page agreement duly signed by BARC (1 set) is enclosed for your retention. The agreement is effective from June 9, 2016.

Also find enclosed technology deployment document for above technologies.

Kindly acknowledge

With regards,

Encl : a.u.

Yours sincerely,
Swati S. Mule
(Swati S. Mule)
SO/TL TT&CD

Through: (R.S.V.G. Sharma)
Outstanding Scientist
Head, TT&CD





Dr. B.P. Ronge,
Secretary,
Shri Vitthal Education & Research Institute,
Gopalpur-Ranjani Road,
P.B. No.54, Gopalpur, Tal: Pandharpur-413304
Dist : Solapur, Maharashtra

In P.M.P.
Date 18/06/2016
For the receipt
B. Ronge
18/06/2016

College of Engineering
Pandharpur
Jawad No. 18/06/2016
Date

RHRDF Activities

Sr. No	Name of Activity	You Tube Link	For More Details Scan QR Code
01	BARC Domestic Water Filter	https://youtu.be/qmmZwPvqO0Y	
02	Soil Organic detecting testing kit	https://youtu.be/oTTLvh0vUmM	
03	SVERI- RHRDF Aashadi Wari 2016 Part 1	https://youtu.be/DPnrY63VC0w	
04	SVERI- RHRDF Aashadi Wari 2016 Part 2	https://youtu.be/lA4ixvTmOKE	
05	Foldable Solar Dryer	https://youtu.be/4xwPd3RfKn4	

Sr. No	Name of Activity	You Tube Link	For More Details Scan QR Code
06	Flat Bed Foldable Solar Dryer	https://youtu.be/l4cv90IG4eA	
07	How to install Water Filter	https://youtu.be/2Oemdbn3S_g	
08	Stainless Steel Water Filter	https://youtu.be/OzS5Og5Z9BE	
09	Cillage Introduction Video	https://youtu.be/khODOJ7xv3O	
10	RESEARCH ARTICLES A concept of knowledge and technology enabled empowerment of rural Indian villages	http://www.barc.gov.in/akruti-tp/akruti_article1.pdf	