



Tech4Seva

A joint initiative of Unnat Bharat Abhiyan and Vijnana Bharati



A THREE-DAY NATIONAL WORKSHOP

on

Technology Outreach as an Enabler for Inclusive & Sustainable Development

10-12th August 2019 • Venue: IIT Delhi

For registration please visit: www.tech4seva.in

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A THREE-DAY NATIONAL WORKSHOP *on* **TECHNOLOGY OUTREACH AS AN ENABLER FOR INCLUSIVE & SUSTAINABLE DEVELOPMENT**

A phenomenal progress in the field of science and technology (S&T) has brought prosperity to millions in India. However, the fruits of these developments have not reached to a large section of population, especially the rural people, who continue to live precariously. Various voluntary groups, non-government organisations (NGOs) and corporates are working towards bridging this gap. Such earnest interventions have made some impact. Yet, the overall picture remains dismal.

An appropriate intervention of S&T has an immense potential to catalyse positive transformation in rural areas. In today's rapidly growing 'knowledge economy', the mobilisation of financial resources alone, however, cannot ensure equal prosperity and development. The application of professional know-how, evolved through innovative research and development (R&D), and its adaptation to the local milieu is equally important. Therefore, corporates, research agencies, NGOs, voluntary organisations and grass-roots level workers must come on a common platform to address the challenges.

The complexity of the challenges demand interventions at several levels. We need to explore and reinvent innovative approaches for a collective action from multiple stakeholders including government, voluntary social organisations, NGOs, corporates, entrepreneurs, academicians and scientists. Several prominent organisations and research and academic institutions like IITs, NITs, IISc&IISERs, DST, DBT, ICAR, ICMR, ISRO, BARC/DAE, DRDO, CSIR Laboratories, MGIRI, Organisations of MoEF&CC like Indian Plywood Industries Research & Training Institute (IPIRTI) and many more have developed new technologies in the field of medicine, energy, agriculture, environment, information technology etc. for societal benefits. It is the need of the hour that all the stakeholders-corporates, research agencies, voluntary social organizations, facilitator organisations, government and non-governmental agencies working in the fields of livelihood and entrepreneurship come together on a common platform and find solutions to the problems that affect the lives and well-being of millions of people.

This year, we are celebrating the 150th birth centenary of Mahatma Gandhi. Mahatma Gandhi emphasised the importance of S&T for the



upliftment of the masses. The initiation of the process of societal transformation by bringing together several key stakeholders who have the potential to address challenges with S&T intervention on a common platform-*Tech4Seva*, will be the most appropriate tribute to the father of the nation.

“Tech” meaning 'technology' and “Seva” means 'selfless service' for the greater good of the society. Technology can be defined as science applied to practical purposes. And when applied for the greater good of the masses, it is referred to as “Seva”. *Tech4Seva* will help mobilize creative abilities of technology providers- academic and research institutions, voluntary organisations, NGOs & CSR conscious corporates, facilitator organisations and entrepreneurs to provide scientific and sustainable solutions to the issues that are identified at grass-roots level through the convergence approach of Unnat Bharat Abhiyan (UBA) and the ethos of Vijnana Bharati (VIBHA).

UBA is inspired by the vision of transformational change in rural development processes by leveraging knowledge institutions to help build the architecture of an inclusive India. Under the UBA umbrella, the concept of subject expert group (SEG) is envisaged for utilising science and technological innovation for the transformation of villages. In this context, Vijnana Bharati, a science movement with swadeshi spirit, has a greater role to play. *Swadeshi* Science Movement was started in Indian Institute of Science, Bengaluru by some eminent scientists under the guidance of Prof. K. I. Vasu. One of the founding principles of VIBHA is - *Swadeshi* Movement with modern sciences adapted to national needs.



Focus of the Workshop

The focus of the workshop is to provide a platform to - academicians & scientists (who are working towards the development and adaptation of technologies) to showcase their work on socially relevant technologies - voluntary and other social organisations and facilitator organizations that are working with the communities to address the concerns, issues and challenges of people - entrepreneurs, start-ups and organisations that are working with medium, small, and cottage entrepreneurs to bring the solutions to the field - CSR conscious corporates to provide financial support in the gap areas of growth and development.

This workshop has the following themes - livelihood, school education, sustainable energy solutions for decentralized applications, environment, agriculture, Swasth Bharat, Technology for marginalized groups. Through panel discussions, paper/poster presentations, round table discussions and product display, it aims to facilitate knowledge exchange among stakeholders.



Key Stakeholders

The following four key stakeholders are involved in technology-driven sustainable development platform - *Tech4Seva*.

Technology providers

(Academic and Research institution like IITs, NITs, DST, DBT, ICAR, ICMR, MGIRI, CSIR, ISRO, DRDO and BARC etc.)

Community

(Through voluntary social organizations, facilitator organizations, NGOs, PRIs & ULBs and other community based organizations especially those rural technology compliant)

CSR conscious corporate (Funding Agencies)

Entrepreneurs based organizations (KVIC, Industry associations, NSIC)

Relationship between stakeholders



Expected outcome of the workshop

Tech4Seva is an initiative to facilitate the major stakeholders of social change – Corporates, Scientific and Research Institutes and social organizations, primarily aiming to diffuse technologies to the weaker sections of society so that they derive benefit in terms of quality education, reduced drudgery, enhanced income and an improved quality of life. The workshop will put in place a mechanism to ensure knowledge and information exchange among different stakeholders. *Tech4Seva* will provide:

- Excellent opportunities to research organizations and industries to showcase their innovations which are relevant to the society.
- An excellent opportunity to connect solution-seeker to solution-provider.
- Excellent opportunities to voluntary social organizations, NGOs and grass-roots level institutions of governance to share their problems with the scientific community.
- Excellent opportunities to Participating Institutes (PIs) of UBA for gradual movement towards holistic development of the chosen cluster - using modern scientific and technological knowledge.
- Opportunity to organizations working among small, medium and cottage industries to identify the thrust areas. With this workshop entrepreneurs/start-ups will be able to identify potential economic activities.
- Opportunities of networking to voluntary social organizations and NGOs working on convergence of Science & Technology and social relevance as implementers of change in New India.

The detailed documentation of the outcome of the workshop will be made available as a technical support to UBA PIs, and social organizations engaged in community development especially in rural areas. R&D institutions shall get directly exposed to the real needs of the people and the ground realities. In the process, a bank of unaddressed technological needs of society will be created which may become a dynamic source of live projects for students, research scholars and faculty in the professional institutes.



Outreach and Themes

The focal themes of the Workshop are:



Agriculture



School
Education



Sustainable
Energy Solutions
for Decentralised
Applications



Environment



Swasth
Bharat



Livelihood

Activities in the workshop

The activities of the workshop will be in the following format:

- Panel discussions on each theme to highlight issues and challenges.
- Dialogue among stakeholders through paper/poster presentations highlighting the products & processes, experiences & success stories, challenges, problems, potential solutions in future, possibility of adaptation.
- Solutions will be grouped in different layers
 - o Technology tested at lab level but pilot is required
 - o At the level of proof of concept
 - o Technology ready for transfer to the field
- An Exposition by organizations to showcase relevant and appropriate technologies and solutions manifested into reality. Academic and research institutions including UBA, SEG & PIs (Participating Institutes), entrepreneurs, volunteer social organizations, individuals and students will participate in exposition.
- Networking facilities for all the stakeholders.



Tech4Seva Expo

- A three - day exhibition will also be organised as part of the programme. Various technologies developed by prestigious organisations, start-ups, industries and individuals will be demonstrated and showcased during this Expo.
- Students, inventors and innovators will interact with R&D organisations and industries, which can lead to further development of technologies.
- Models and technologies from DRDO, Department of Science and Technology, ISRO, CSIR technologies etc., and many rural technologies will be special attraction for the visitors. More than 300 stalls will be displaying technologies for three days.

Venue: IIT Delhi

Date: 10-12 August 2019

Tentative Sessions

Theme 1: **Agriculture**

Objective: Technological interventions to improve the productivity and income of small and marginal farmers.

Focus Area

- Farm stress & resource intensity: Challenges & ways forward.
- Low-cost and sustainable technological interventions in livestock, dairy, poultry farming, and fisheries.
- Small farms, Big returns.
- Small-scale food processing technology.
- Smart and affordable irrigation practices.
- Low-cost post-harvest management practices.
- Non-energy economic potential of agriculture residue.

Theme 2: **Environment**

Objective: Using technology to protect the environment in rural areas.

Focus Area

- Sustainable and affordable technologies to provide safe drinking water.
- Natural resource and biodiversity: The cost of ignorance.
- Sustainable practices for sanitation and faecal sludge management- Rural & Slum areas.
- Technologies for water and soil conservation.

Theme 3: **Livelihood**

Objective: Sustainable livelihood based on local resources and appropriate technologies.

Focus Area

- Technological interventions in rural industries- pottery, leather, smithery, carpentry, painting, and so on.
- Technological interventions in Non-Timber Forest Products/Industries.
- Technologies to reduce occupational hazards.
- Economically viable models for cottage and handicrafts industries.

Theme 4: School Education

Objective: Re-imagining education and making it useful for meeting life cycle needs.

Focus Area

- Skill development through school education.
- New approaches to affordable informal education.
- Challenges: Illiteracy to E-Literacy, in view of mass digitization.

Theme 5: Sustainable Energy Solutions for Decentralised Applications

Objective: Sustainable and affordable renewable energy systems ensuring energy security to all.

Focus Area

- Smart solar solutions.
- Community and household-level biogas solutions.
- Small-scale biomass, wind and hydro energy systems.

Theme 6: *Swasth Bharat*

Objective: Accessible, inclusive and affordable healthcare systems.

Focus Area

- Challenges to healthcare in India.
- Immunization technology, epidemic control and community medicine.
- Integrated health practices in New India.
- Technologies to empower the persons with disability.
- Affordable diagnostic techniques.
- Affordable health practices for combating chronic diseases.

Committee List for *Tech4Seva*

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About Us

Unnat Bharat Abhiyan (UBA)



UBA is a national flagship program of the Ministry of Human Resource Development (MHRD), hosted and coordinated by IIT Delhi. It is inspired by the vision of transformational change in rural development processes by leveraging knowledge institutions to help build the architecture of an Inclusive India. Its mission is to enable higher educational institutions to work with the people of rural India in identifying development & challenges and evolving appropriate solutions for accelerating sustainable growth. It also aims to create a virtuous cycle between society and an inclusive academic system by providing knowledge and practices for emerging professions and to upgrade the capabilities of both the public and the private sectors in responding to the development needs of rural India. <http://unnatbharatabhiyan.gov.in>



Vijnana Bharati (VIBHA)

VIBHA, a *swadeshi* science movement, was started at Indian Institute of Science, Bengaluru. This movement gradually gained momentum and emerged as an organization with national presence. The foundation principle of VIBHA is made as a vibrant and dynamic Science Movement with a *Swadeshi* Spirit, interlinking traditional and modern, natural and spiritual sciences for the development of *Swadeshi* Sciences. It has units in 22 states across the country and work in 11 different areas through autonomous institutions, independent organizations & also as project entities. <https://vibhaindia.org/>



Venue: Indian Institute of Technology Delhi

Date: August 10th -12th, 2019

For further details, Please contact

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