

# STRC NEWSLETTER

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Aquaculture & Livelihoods

## Areas of Focus



Applicable R & D and Academic Program Development



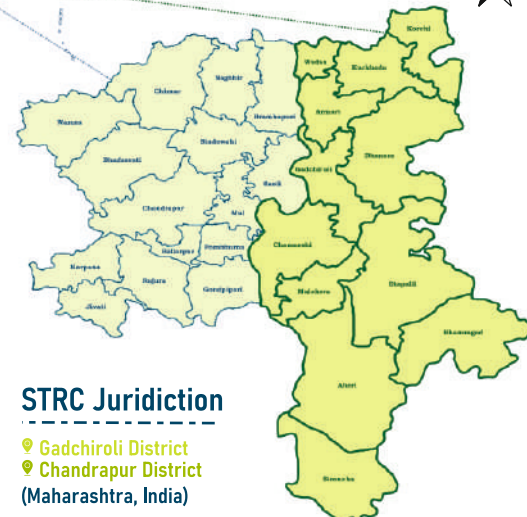
Bamboo Craft & Livelihoods



NTFP/ Med. Plants & Other Livelihood



Communication for Development through ICT



### STRC Jurisdiction

📍 Gadchiroli District  
📍 Chandrapur District  
(Maharashtra, India)



## Science & Technology Resource Centre Gondwana University, Gadchiroli

A centre of excellence for sustainable value creation, conceived and funded by Rajiv Gandhi Science and Technology Commission (RGSTC), Mumbai, Govt. of Maharashtra.

## Technology | Enterprise | Development

STRC is now a registered society 'Science & Technology Resource Centre Foundation Gadchiroli' under the Societies Registration Act, 1860 (XXI of 1860)

# From the CPO's Desk >>>

## Role of Experiential Learning in Indian Education System and Meeting Industry Demands

Experiential learning is certainly transforming the way we approach education today. Experiential learning, not just as a concept but has always been integral to the ancient Indian educational system or gurukul. Gurukuls encouraged students to participate in real world activities including their daily chores which helped them to learn modesty and discipline in the process. However, in the past few decades, with the need of the changing times and effects of modernization, the typical grading system has been enforced itself in to the system.

Traditional system of education giving relevance to the grading system in India has been followed for a long time, however, the modern industry demands are differently placed. Grades may help students stand out in the crowd, but it does not necessarily indicate holistic development or job readiness. The goal of education is to develop good leaders of tomorrow who can solve societal problems, innovate, influence, and motivate. To ensure that this core value is maintained, experiential learning has to play a greater role. Refer to the data generated by NASSCOM, it is evident that India is experiencing a talent shortage, with a demand-supply gap of 21.1%. The report suggests that, scarcity of talent can be attributed to significant skill gap and curriculum designs not aligned with the current industry demands resulting in existing skilled workforce not able to cope with the needs of rapid technological advances. This has led to a stage where only a small percentage of graduates getting hired by reputable organizations out of millions every year.

Changing the landscape of the education system needs the best practices from experiential learning such as 'learning with doing' to develop reflective practice habits and 'beyond the classroom' learning to cultivate leadership qualities. Improvising the educational experience by bringing industries close to academia and facilitating proper communication between students, teachers and industry is the need of the hour. Students must be provided with real-life organizational situations to develop an element of problem-solving. This would help them strengthen their decision-making abilities. Active hand-holding of the industries to aid students to make crucial life choices and early preparation for getting career ready.

Creating platforms for regular interface between students and industry experts will leverage the knowledge bank of the students while giving them an insight into the skills in demand for the industry. With on campus experiential learning, students can interact with mentors through one-on-one sessions, develop new skills, participate in apprenticeships, gain experience through internships and expand their network, which could facilitate their professional development. It will help bridge the skill-gap and address the bigger concern now.

*(Source: The Times of India/ August 2022/ NASSCOM Report/ India Tech Industry Talent Demand-Supply Analysis)*

### Shri Ashis Gharai

Chief Program Officer & Head,  
Science & Technology resource Centre,  
Gondwana University, Gadchiroli

*Conceived and funded by Rajiv Gandhi Science and Technology Commission (RGSTC), Mumbai, Government of Maharashtra, Science & Technology Resource Centre (STRC) is an autonomous institute established in concurrence with Gondwana University, Gadchiroli. STRC is entrusted with generating livelihood opportunities by deploying appropriate science and technology, particularly for the under-served tribal communities of the Gadchiroli region since 2014. As a centre of excellence for sustainable value creation, STRC is leveraging local resources, relevant knowledge and appropriate technologies for human capacity development. STRC acts as a catalyst to science and technology based development of the region and as a bridge between knowledge activities of the University and enhanced livelihoods in the neighborhood.*



## Diploma in Bamboo Entrepreneurship and Design: Student Internship Program

Internships have become a crucial aspect of educational experience for students, providing them opportunity to gain practical experience in chosen fields. One sector that recently has gained a lot of attention is bamboo, which offers unique opportunities for students to understand conservation and sustainable development, optimum utilization of natural resources for better livelihoods and growth of rural economy. Through internship opportunities in the sector, students can gain valuable exposure to these critical issues and develop their capacities. Internship programs also offers opportunities for personal growth through development of interpersonal and other soft-skills and help build their confidence and in the informed decision making processes. They can also learn about the socio-economic benefits of bamboo, such as job creation and poverty reduction which is part of their diploma curriculum.

Bamboo has emerged as one of the highly profitable industry, with growing demand for bamboo products in domestic as well as international markets. Skilled work-force in this sector would require industry exposures including more engaging internship platforms to have first-hand experience on various aspects of the bamboo supply chain; from cultivation to harvesting, to product development and diversification, to business development ideas and marketing. As part of this first phase of the internship program, students were exposed to an interactive training platform on Bamboo Jewelry with a local NGO (Raja Mata Jijau sanstha). Group of women were helped to learn various steps involved in bamboo strip making, designing, product assembly and finishing of bamboo Jewelry through a STRC developed user-friendly Standard Operating Procedure. This interactive workshop helped students to identify skill sets of the women group, while assessing the need of effort to create an entrepreneurship model involving these women in future including a fair understanding of establishing a production line, quality control, value chain analysis and financial linkages etc.

STRC would continue its efforts in providing such opportunities to students and create a cadre of skilled workforce and young entrepreneurs.



**Priya Madig**

Faculty, Diploma in Bamboo  
Entrepreneurship and Design,  
Science & Technology Resource Centre  
Gondwana University, Gadchiroli



# What's Making News »»



**Padmavibhushan  
Dr. Anil Kakodkar**

Chairman, RGSTC, Mumbai,  
Government of Maharashtra

“

*Science & Technology Resource Centre at Gondwana University Gadchiroli has been set up to nurture a sustainable ecosystem that enhances livelihood as well as contributes to enriching academics and research in the local context leveraging synergy between the two.*

”

**“STRC must focus on basic human development indices such as health, education and livelihoods to ensure all round development of the region” says Padmavibhushan Dr. Anil Kakodkar**

The joint meeting of the Governing Body and Program Advisory Board of Science & Technology Resource Centre (STRC), Gondwana University Gadchiroli was held on April 18, 2023 in the August at Gondwana University, Gadchiroli in presence of the Chairman, Rajiv Gandhi Science and Technology Commission, Mumbai, Govt. of Maharashtra, Padma Vibhushan Dr. Anil Kakodkar.

At the outset, Dr. Charudatta Mayee, Chairman, Governing Body-STRC apprised the members of the board about the significant progress STRC achieved during the last six months. Hon'ble Vice Chancellor, Gondwana University Gadchiroli and Chairman, Program Advisory Board Dr. Prashant Bokare shared his views on how STRC has a distinct advantage being a part of the University ecosystem.

Chief Program Officer & Head, STRC and Member Secretary, GB & PAB, Shri. Ashis Gharai presented STRC project progress through a detailed presentation. Member Secretary, Rajiv Gandhi Science and Technology Commission, Mumbai, Govt. of Maharashtra, Dr. Narendra Shah, CGM NABARD, Shri. Gowardhan Singh Rawat, Smt. Pragati Gokhale, Advisor and Office-in-Charge, Rajiv Gandhi Science and Technology Commission, Nagpur and Dr. Anand Bang, Joint Director, SEARCH, Gadchiroli along with other eminent members, actively participated both in-person and virtually.

Dr. Kakodkar, former Chairman, Atomic Energy Commission, Government of India and Chancellor, Homi Bhabha National Institute, Mumbai, advised that incorporating the component of education at all levels will be vital for all-round development of the

region. He emphasized STRC should focus on the basic human development indices such as primary health, education and livelihoods keeping the family / household as a unit.

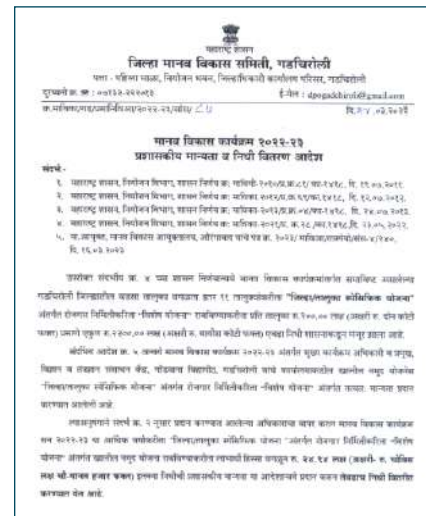
STRC demonstrated life-size prototypes of various agri-allied tools and exhibited innovative tools created through in-house R & D. STRC's unique initiative, 'Vaidya Chikistalay', received special appreciation.



## Manav Vikas Mission, Govt. of Maharashtra Extends Funding Support to STRC for Two Exclusive Science and Technology Centric Livelihood Development Projects

Under the 'District / Taluka Specific Scheme' of Manav Vikas Mission, Govt. of Maharashtra for employment generation, the local district administration sanctioned two exclusive projects to STRC, namely; Bamboo based Common Facility Centre at Maldugi, Kurkheda and Integrated Aquaculture (Fish and Poultry) Project, Aheri directly catering to 50 and 20 marginal households respectively.

STRC, through these projects, aims to develop bamboo craft-based production facility and fishery centric integrated farming (fish & poultry) facilities. STRC will introduce modern low-cost technologies, provide skill development and technical hand-holding support and establishment of community enterprise leading to better income opportunities for the selected beneficiaries.



## Customised Mobility Aids Using Bamboo for Disabled Villagers; An innovative project in collaboration with Visvesvaraya National Institute of Technology (VNIT), Nagpur

Science & Technology Resource Centre (STRC), Gondwana University Gadchiroli, is all set to collaborate with BETiC - Visvesvaraya National Institute of Technology (VNIT), Nagpur for a collaborative project 'Design and Development of Customised Mobility Aids Using Bamboo for Disabled Villagers' supported under the STRC Assistance for S & T Application Scheme.

Series of discussions and workshops during January-February 2023 both at VNIT Nagpur and STRC Gadchiroli with Dr. A. M. Kuthe, Professor, Mechanical Engineering Department, VNIT, Nagpur, has led to the inception of the idea under the Gramin Aarogya Sampada Sahyog (GRASS) initiative of Biomedical Engineering and Technology Innovation Centre (BETiC), VNIT, Nagpur.

This innovative project aims to have a bottom-up approach to create more user-friendly and better designed orthopaedic aids involving its user-group and also to understand the feasibility of developing an enterprise around selected bamboo made orthopaedic aids as a sustainable livelihood opportunity for people with disability in the region and beyond.



# Glimpses of the Month »»



With an aim to discuss possibilities of introducing a Mobile Observatory Facility at few selected tribal schools of Gadchiroli on a trial basis, STRC officials visited Raman Science Centre, Nagpur. The Mobile Observatory equipped with all required equipment would bring in a lot of interest and excitement among young school children and provide them an opportunity to learn astronomical concepts, hands-on. This preliminary collaboration is believed to be a step forward in promoting science education in the region.



Sanjivani Agro Machinery, Nagpur, one of the leading manufacturers of biomass pellet and other feed machines. To explore the scope of installing fish feed mill, under the scientific fishery interventions in Gadchiroli district, STRC officials visited Sanjivani Agro Machinery, Nagpur. STRC will procure and install fish feed mill at strategic locations as a community enterprise in coming months.

This may be a significant step towards promoting sustainable agriculture practices and in providing better livelihood options to farmers through the use of technology.

STRC officials recently visited My Science Lab, Nagpur with the goal of introducing the concept of 'Experiential Learning' among young school going children of Gadchiroli district. This initiative entails the development of 'Experiential Learning Kits' which will arouse students' scientific curiosity and instil a scientific approach in children. Students will be able to better understand scientific concepts and develop an interest in the subject if they are given hands-on learning experiences. The preliminary interaction between the STRC and My Science Lab is an important step towards promoting experiential science education and inspiring future generations.



## STRC Assistance for S & T Application Scheme

This scheme presents an unique opportunity for R & D inclined short term, small grant for relevant, applicable research projects to support STRC mandate and to help create an R & D eco-system.



### Nature of Projects Under the Scheme



- 1 S & T Studies and Surveys
- 2 Location Specific Research & Innovative Technology Development
- 3 Pilot Scale Demonstration Project
- 4 Replication of Successful Models
- 5 Joint Programs
- 6 Awareness and Training
- 7 Projects with Students Participation

### How to Apply



Ph.D. Scholars, Researchers, Faculties, Master Students, NGOs and Exceptionally Relevant R & D based Proposals from Independent Individuals / Institutes

### Research Grant

Up to 6 Months



### Project Duration

Up to INR 1.0 Lakh



### How to Apply ?



Go Through the Detailed Scheme Document



Assess the Proposal Relevance



Draft the Pre-Proposal in the Prescribed Format



Submit Your Pre-Proposal

### Application are invited throughout the year

Please visit our website for scheme details and proposal format.

**Contact Details :** [www.strc.org.in](http://www.strc.org.in) | +91 8080219036, +91 8446734219 | [strc.academic@gmail.com](mailto:strc.academic@gmail.com) | Gondwana University, MIDC Road, Complex, Gadchiroli - 442605





## विज्ञान व तंत्रज्ञान संसाधन केंद्र गोंडवाना विद्यापीठ, गडचिरोली



### एक वर्षीय पदविका अभ्यासक्रम बांबू उद्योजकता आणि रचना

आदिवासी व ग्रामीण तरुणांना बांबू क्षेत्रात भविष्य घडविण्याची संधी तथा सक्षम व कुशल मनुष्यबळ तयार करण्याच्या दृष्टीने गोंडवाना विद्यापीठाद्वारे सुरु करण्यात आलेला पदविका अभ्यासक्रम

### अभ्यासक्रमाची प्रमुख वैशिष्टे



बांबू उद्योजकता केंद्रित  
अभ्यासक्रम



बांबू क्षेत्रातील कुशल  
तज्ञांद्वारे प्रशिक्षण



बांबू संशोधन व  
विकासाकरिता  
आधुनिक व सुसज्ज सुविधा



बांबूवर आधारित उद्योगांच्या  
स्थापनेसाठी आर्थिक सहाय्य  
मिळविण्याची संधी

### प्रवेश घेऊ इच्छुक असणाऱ्या विद्यार्थ्यांकरिता ...

- ✓ निशुल्क - प्रवेश व वसतिगृहाची सुविधा
- ✓ शिका व कमवा योजने अंतर्गत आर्थिक सहाय्य मिळविण्याची संधी
- ✓ यशस्वीरीत्या अभ्यासक्रम पूर्ण केल्यास रोजगार सहाय्य

### विद्यार्थी प्रवेश क्षमता



३०

इच्छुक विद्यार्थ्यांनी त्वरित  
संपर्क साधा

### शैक्षणिक पात्रता

शिक्षण: १२ वी पास

वयोगट : १८ - २५ वर्षे