

Annual Report 2020-2021

RCI- IIT Palakkad



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IIT Palakkad as the Regional Coordinating Institute

Indian Institute of Technology Palakkad has become the Regional Coordinating Institute of UBA for the districts Palakkad, Kozhikode, Kannur, Wayanad and Kasargod in the First National Level executive Committee meeting held on 28th Nov 2019. Currently, there are 24 participating institutions in this region under UBA. Since its inception, IIT Palakkad has been trying to connect and coordinate with the participating institutions for supporting their activities in their adopted villages. A UBA Cell is also constituted under the chairmanship of Director IIT Palakkad for the implementation of the program at IIT Palakkad.

Major activities undertaken as the Regional Coordinating Institute

1. Workshops

IIT Palakkad organised several workshops for orienting and encouraging the participating institutes in the region to take part in the developmental activities of the adopted villages.

1.1 Regional Workshop for the Participating Institutes to Start UBA Activities in their Adopted Village Clusters

The Regional Coordinating Institute, IIT Palakkad, organised a one-day workshop on 13 July 2020 for the participating institutes to start UBA activities in the adopted village clusters. The workshop was conducted in google meetup given the current pandemic situation. The workshop marked the attendance of around 50 participants.

Dr. Athira P, Assistant Professor and Regional Coordinator UBA welcomed the guests and participants and gave a brief introduction to the workshop. She described the activities of IIT Palakkad UBA cell. She assured all the technical support to the participating institutes for their activities in their respective village clusters.

Prof. P B Sunil Kumar, Director IIT Palakkad, in his inaugural address discussed three significant steps for initiating UBA activities: 1. Identification of problems/issues which need addressal; 2. Identification of resources within the institute; 3. Commencement of work in the villages and receiving financial support.

Prof. V K Vijay, National Coordinator UBA in his address provided a clear understanding of the vision and mission of the UBA program. In his presentation, he described the achievements and initiatives of UBA. His introductory presentation was adequate enough to understand the objectives of the UBA activities.

Prof Vivek Kumar, Co-Coordinator UBA, suggested steps and guidelines to the participating institutes for formulating a 'plan of action' for village development in his session. He also explained the importance of establishing contact, awareness and participation, situation analysis and need identification. Prof. Vivek shared the methods of project formulation, monitoring, assessment and evaluation, and also the long-term action plan for village development. He has also discussed the funding and convergence possibilities and answered queries from the participants.

Ms. Bharti Jasrotia demonstrated the web portal and ERP system of UBA. Following the demonstration, Dr. V. Sampath Kumar, UBA Coordinator, Vimal Jyothi Engineering college shared their experiences and best practices adopted by the institute.

The discussion session concluded the workshop. The collective feedback from the participants was that the workshop was prolific and insightful. They all committed to continuing their excellent work for the adopted villages. IIT Palakkad UBA cell is planning a series of workshops for the participating institutes to initiate various activities in their respective adopted villages.





1.2 Panel Discussion - Capacity Building of the Higher Education Institutions for Rural Engagement

UBA cell of IIT Palakkad as the Regional Coordinating Institute organised a panel discussion on “Capacity Building of the Higher Education Institutions for Rural Engagement” to encourage the faculty and students of higher education institutions for an inclusive engagement with the rural community. The panel discussion aimed to build the capacity of institutions to work with the people of rural India in identifying development challenges and to evolve appropriate solutions for accelerating sustainable growth.

Panelists

1. Shri S. M Vijayanand, Chairman, Sixth State Finance Commission, Kerala State.
2. Dr. Usha Titus IAS, Principal Secretary, Department of Higher Education, Government of Kerala.
3. Dr. R Ramesh, Associate Professor & Head, Centre for Rural Infrastructure, NIRD&PR, Hyderabad.
4. Dr. C. Kathiresan, Associate Professor & Head, Centre for Panchayati Raj, Decentralized Planning and Social Service Delivery, NIRD&PR, Hyderabad.

Moderator

Dr. Amrita Roy, Assistant Professor, Department of Humanities, IIT Palakkad.

Dr. Amrita Roy in her introductory remarks, explained the context of the panel discussion, introduced the panelists and welcomed the panelists and participants.

Key takeaways from Shri S M Vijayanand talk

Initiating the discussion, Shri S M Vijayanand said that UBA has evolved from the concept of Academic Social Responsibility. He commented that Unnat Bharat Abhiyan can be best operationalised in Kerala because of the experience in mobilising the college students informally for the People's Plan Campaign over the last 20 years. He also suggested that Higher Education Institute (HEI)s should support the Gram Panchayats (GP), support the Self Help Group (SHG) networks and the CSOs which are linked to the Gram Panchayats by handholding Project Ideation, Project Preparation, Troubleshooting, Quality Assurance and Impact Analysis. He informed that all the Gram Panchayats in India are under the process of preparing the Gram Panchayat Development Plan (GDP) and the gram panchayats in India will receive an amount of approx. 8-10 lakh crore in the next five years. He mentioned some broader priority areas such as Local Economic Development coupled with ecological development, Poverty and Social Justice, User Technologies, Technology for various problems, Mapping of Assets, Rejuvenation of Gram Sabhas etc for prospective interventions by education institutions. He also suggested the participating institutes to devise a system for giving credits to the students for their participation. He proposed a state-level and district-level steering committee involving various stakeholders such as different Universities, IIT, IIM, KILA, LSGD, Higher Education and Panchayat Departments to identify issues that need interventions from education institutes. He expressed his willingness to take the lead to work out a detailed plan of action for every educational institute in Kerala for an effective rural engagement if the Higher Education Department and Local Self Government Department agree upon.

Key takeaways from Dr. C. Kathiresan talk

Dr. C. Kathiresan started his presentation by sharing the vision of the Ministry of Panchayati Raj, Government of India -“rural transformation through sustainable development”. He discussed various NIRDPR approaches in the area of sustainable rural development such as i) Cluster approach where the selected Gram Panchayats will act as “action laboratories” or “learning labs” for other neighbouring GPs, ii) Action research/short studies in Panchayat Governance for the dissemination of best practices, iii) Saturation approach for skilling for wage and self-employment etc. Later he discussed NIRDPR's Model GP Clusters Project in detail. NIRDPR initiated an ‘Action Research Project for 100+ Clusters Development Programme’ mainly with the support from the corporate sector to create model GPs and model GDPs to motivate other GPs. It is done through the institutional strengthening of GPs and enablement of quality GDP. He also discussed the most important entry-level activities, major activities, key deliverables and outcomes in those projects.

Key takeaways from Dr. Usha Titus IAS talk

Dr. Usha Titus initiated her discussion by briefing the areas where the students are participating with the local bodies besides Unnat Bharat Abhiyan. She enumerated the activities of National Service Scheme (NSS) units in the colleges. NSS units select one administrative ward from the neighbouring GP and spend their time during their vacation in this selected place and do the mapping of the ward and then identify the problems. The main activities undertaken by the NSS group also include the construction of houses for the homeless, distribution of organic seeds, awareness programs, and other sensitization programmes. She also highlighted the potential of the student group to intervene and involve during emergency situations such as natural calamities (flood, pandemic etc). She said that the whole idea of Unnat Bharat Abhiyan is that the HEIs should not remain as an island of knowledge, in fact, they should leverage their knowledge in the benefit of villages they adopted. She said that there is a clear communication gap between the local bodies and higher educational institutions. She also stated that education institutes often fail to understand or identify the needs of local bodies where the local bodies fail to approach the education institutions to address their concerns. She has also suggested forming a group of faculty from different education institutions and building their capacities for rural engagement.

Key takeaways from Dr. R Ramesh talk

Dr. Ramesh started his discussion saying that the crux of UBA program is that Science, Technology and Management can play a key role in enhancing the quality of life and in enabling the people to achieve the dignity of life. He said that some technological or innovative interventions do not reach the rural people and produce the outcomes as expected due to many reasons. He also shared his experience of reviewing technological proposals of UBA. Later in his presentation, he shared about the scope of different departments like Computer Science, Electrical Engineering, Home Science, Civil Engineering, Agriculture as well as Arts & Science institutes in the rural development process. His talk mainly discussed the activities that an HEI can initiate.

Question and Answer section

The moderator asked Shri S.M Vijayanad if there is a possibility for the LSGs to set up a unit that will actively seek technical help from HEIs as the education institutions struggle to coordinate the engagement. Shri S.M Vijayanad replied that it is possible if the government proactively facilitates the formation of such a unit for coordinating the interventions and he also suggested both HEIs and local bodies to brainstorm in order to come up with a list of plans for possible interventions. He also mentioned the possibility of utilizing the 10% of finance commission grant for capacity building activities as an answer to the moderator's question regarding meeting operational cost and support from the State government. While discussing the possible intervention in the rural areas during COVID-19, Dr. Kathiresan shared some interesting and inspiring experiences during the pandemic such as holding small meetings, motivating young fellows to work with the Panchayats, online connect etc. Considering the HEIs being the external unit, the moderator asked Dr. Ramesh about the possible interventions to address the issues concerning the social living conditions (such as alcoholism, autonomy or respect for women etc) to achieve holistic development. He commented that these are sensitive issues which need attention and

involve a change in the personal and social behaviour of the communities. As an answer to a question regarding different competitions such as Kerala Reboot Hackathon and Smart India Hackathon helping the student group in understanding the problems of rural areas. She explained that in Kerala reboot hackathon, there was a huge participation from the students and they worked on real-life problems that were posted by the officers from various government departments. She also answered a question from the chatbox regarding the possibility of providing credits to students who engage in rural development activities. She accepted it as a good suggestion and agreed to look upon it.

The panel discussion was indeed fruitful with the active participation of 120+ participants in the Zoom platform and 50+ participants on Youtube. Further, as suggested by the panelists, IIT Palakkad agreed to work with the collective initiatives which enhance the involvement of HEIs in rural development.

Follow up plans

1. Formation of State and District steering committees involving various stakeholders to identify issues that need intervention from higher education institutes.
2. Development of action plan for the Wayanad district in collaboration with NIRD&PR and State Government.
3. State-level planning for rural development by incorporating all the UBA institutes.
4. Adoption of a cluster-based approach for village development
5. Encouraging students to work on rural issues as part of BTech/ MTech projects

IIT PALAKKAD UNNAT BHARAT ABHIYAN

Capacity Building of the Higher Education Institutions for Rural Engagement

Friday, 28th August 2020 04:00 PM - 05:30 PM

Registration Link: <https://forms.gle/29REijU5W5UdV45PA>



Shri S. M Vijayanand
Chairman,
Sixth State Finance Commission,
Kerala State



Dr. C. Kathiresan
Associate Professor & Head,
Centre for Panchayati Raj,
Decentralised Planning and Social Service Delivery,
NIRD&PR, Hyderabad



Dr. Usha Titus IAS
Principal Secretary,
Department of Higher Education,
Government of Kerala



Dr. R Ramesh
Associate Professor & Head,
Centre for Rural Infrastructure,
NIRD&PR, Hyderabad

Moderator



Dr. Amrita Roy
Assistant Professor,
Department of Humanities,
IIT Palakkad

Organized by Indian Institute of Technology Palakkad UBA Cell




Contact: uba@iitpkd.ac.in

Discussion platform:
Zoom Platform
IIT Palakkad Youtube Channel



1.2 1.3 Online dialogue on Academic Social Responsibility, Knowledge and Technology Dissemination for Sustainable Rural Development

The Regional Coordinating Institute for Unnat Bharat Abhiyan, IIT Palakkad, organised a Dialogue on **Academic Social Responsibility- Knowledge and Technology Dissemination for Sustainable Rural Development** to encourage the faculty and staff of the participating institutes of the region for an inclusive and extensive engagement with the rural community. Dr. Joy Elamon, [Director-General, Kerala Institute of Local Administration \(KILA\)](#) was the key speaker for the dialogue. Dr. Soumya G Rajan, Assistant Registrar, IIT Palakkad facilitated the dialogue. The dialogue was conducted on the Zoom platform due to the COVID-19 limitation, on 07 October 2020 from 02:30 PM to 04:00 PM. The dialogue marked the attendance of around 50 participants.

Dr. Sahely Bhadra, Assistant Professor and Faculty Coordinator UBA, initiated the dialogue by briefly describing the activities of UBA Cell IIT Palakkad. She welcomed the key speaker Dr. Joy Elamon, facilitator Dr. Soumya G Rajan and other participants of the online dialogue.

Dr. Soumya G Rajan gave a brief introduction about the dialogue and the idea behind organising such a dialogue. She requested every participant of the dialogue to make an attempt to establish intimacy, initiate interactions, include the varied interests each represents and intentionally and consciously learn from each other for a fruitful gathering.

Dr. Joy Elamon, Director General, Kerala Institute of Local Administration started his dialogue by explaining different ways how local governments and academic institutions can work together. He said an ideal support system for the local government institutions means a group of organizations, institutions, governance and development experts, the network of peers, platforms for advocacy and knowledge management. This group should be available to the local government institutions to support and carry out its function as a local government and enable them to mature and

strengthen themselves as local governments. He mentioned that there is a lack of understanding between Local Self Governments and the Higher Education Institutes about the scope of their partnerships. Dr. Joy also described in detail the functions of local governments such as Statutory, Delegated, Ongoing and Potential functions. He also shared the previous experience of the collaboration of Higher Education Institutes with the local self-government in the areas of solid and liquid waste management, disaster management etc.

Later, Mr. Sebib Sunny, UBA Coordinator Sreepathy Institute of Management and Technology, shared their association with Unnat Bharat Abhiyan. He discussed their initiatives in Atal Tinkering Laboratories (ATLs), Solar Yatra, Bharathapuzha revival, Innovative Ecosystem etc.

Question and Answer section

IIT Palakkad Director Prof. P. B. Sunil Kumar asked a question on setting up a framework to ensure the relationship between Local Government and Higher Education Institutes. Dr. Joy replied that KILA and IIT Palakkad can have joint sessions to see how both the institutes can work together in future. He also mentioned that more interactive sessions for the faculty and students about local governance will equip the team with the scope and potential of working with the local governments. The facilitator then asked about if there is any state-level repository of rural livelihood related problem descriptions for which technological interventions are sought. He then replied there is no such repository at the state level and requested IIT Palakkad to take such an initiative. Replying to a question on the e-courses offered by KILA, Dr. Joy answered that KILA is currently offering more than 100+ courses online through their e-portal where most of the courses are available for the public. He also discussed the activities of KILA Centre for Organic Farming and Waste Management, Kannur and KILA Centre for Tribal Development and Natural Resource Management, Attappady, Palakkad. Dr. Joy discussed the question about possible future collaboration with KILA and one of the major suggestions is the involvement of institutes in the module development of various sector-specific themes and in the areas of climate resilience, disaster management etc.

The online dialogue was indeed fruitful with the active participation of 50+ participants in the Zoom. Further, as suggested during the discussion, IIT Palakkad agreed to work with the collective initiatives which enhance the involvement of HEIs in rural development.

Google drive link for the recorded session:

<https://drive.google.com/file/d/1sZdlaEiIrWxklFhvs-8SoayE4zcMHhOt/view?usp=sharing>



IIT PALAKKAD UNNAT BHARAT ABHIYAN



Online Dialogue on Academic Social Responsibility

'Knowledge and Technology Dissemination for Sustainable Rural Development'

Date: 07 October 2020, Wednesday
Time: 02.30 PM to 04.00 PM

Key Speaker:
Dr. Joy Elamon,
Director-General,
Kerala Institute of Local Administration (KILA)



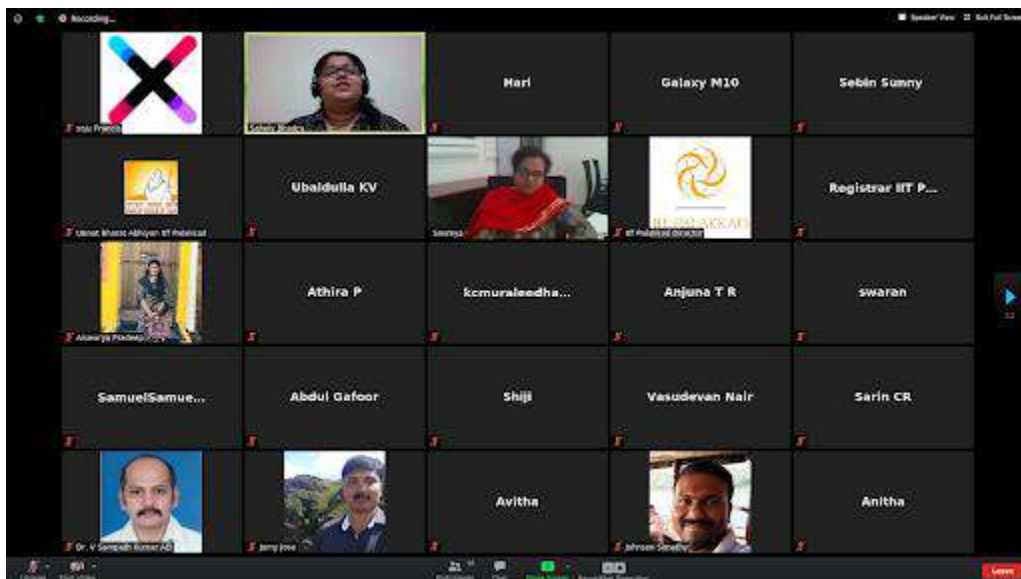
Facilitator:
Dr. Soumya G Rajan,
Assistant Registrar,
Indian Institute of Technology Palakkad

Participants:

- > UBA Participating Institutes (Palakkad, Kozhikode, Kannur, Wayanad and Kasargod)
- > Gram Panchayat officials of the adopted villages in the region

Organized by Indian Institute of Technology Palakkad UBA Cell

Contact: uba@iitpkd.ac.in



2. Pale blue dot series

Pale Blue Dot is a public lecture series that IIT Palakkad organised jointly with the Palakkad District Library and Unnat Bharat Abhiyan. The series features eminent professionals and academicians engaging with the general public on a wide range of topics in science and technology. The confluence of cultures that characterises this border region is the perfect locale for a regular assemblage of intellectually stimulating interactions, encouraging us to question the known and explore the unknown. As a young institute, we envision to participate in, learn from, and contribute to the vibrant intellectual and cultural life of this region and we consider the lecture series to be a step towards that.

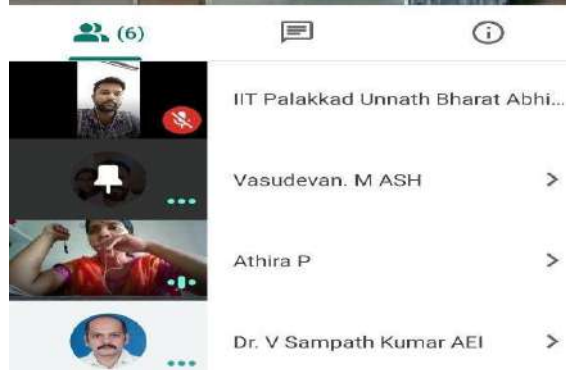
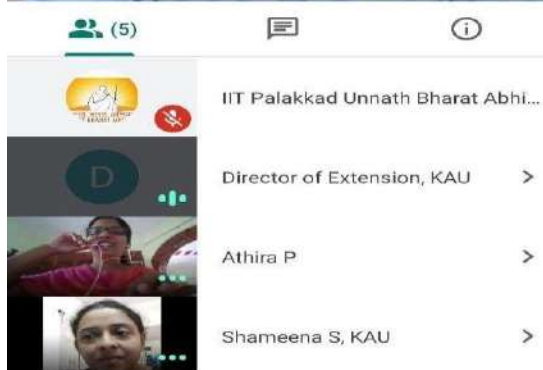
2.1 Learning Online: Opportunities and Challenges by Shri. K. Anvar Sadath, Chief Executive Officer, Kerala Infrastructure and Technology for Education (KITE) and Prof. Andrew Thangaraj (IIT Madras), a National MOOCs Coordinator for National Programme on Technology Enhanced Learning (NPTEL) in the Swayam project of the MHRD.

IIT Palakkad with Palakkad District Library and Unnat Bharat Abhiyan jointly organised its third public lecture series online on the topic, ‘ Learning Online- Opportunities and Challenges’ on 17 July 2020. Shri. K. Anvar Sadath, Chief Executive Officer, Kerala Infrastructure and Technology for Education (KITE) and Prof. Andrew Thangaraj (IIT Madras), a National MOOCs Coordinator for National Programme on Technology Enhanced Learning (NPTEL) in the Swayam project of the MoE were the key speakers. While Shri K. Anvar Sadath focussed on how Free and Open Source Software (FOSS) has accelerated digital education in Kerala, particularly school education, Prof. Thangaraj discussed the formidable role and experience NPTEL has had in making online college education unprecedentedly mainstream in the country. Prof. Thangaraj also talked about IIT Madras's new online diploma and BSc degree in programming and data science. Their interaction provided valuable insights on both the opportunities and challenges that this new pedagogy presents to learners and teachers. The collective feedback from the participants said that the workshop was prolific and insightful. The discussion marked the attendance of about 180 participants.



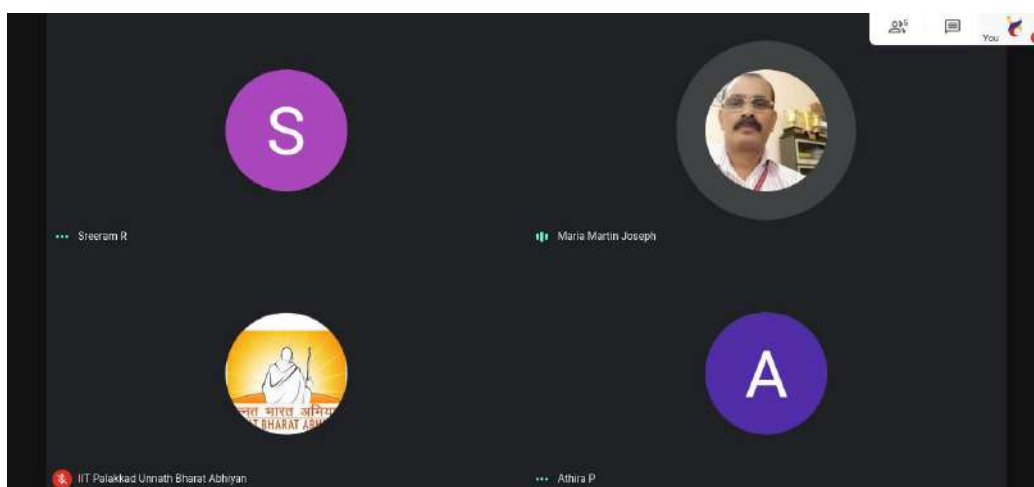
3. Evaluation for the Perennial Fund

IIT Palakkad as the Regional Coordinating Institute of UBA has evaluated Vimal Jyothi Engineering College and Kerala Agriculture University for the third round of evaluation for the perennial fund. As per the instructions from NCI IIT Delhi, UBA cell IIT Palakkad has verified the information given by the respective institute to the NCI and scores have been calculated according to the shared template.



4. Aspirational District Program

IIT Palakkad is planning to work with the participating institutes in Wayanad as a part of the Aspirational District Program. The institute, as the RCI, has conducted an online meeting with the participating institutes of Wayanad to understand their constraints and also to plan the future activities. The institute has also sent an e-mail to the District Collector Wayanad expressing the willingness to participate in the developmental activities.



Major Activities undertaken by the Participating Institutes of the region

1. Indian Institute of Technology, Palakkad

IIT Palakkad being a responsible participant in UBA activities have selected six villages namely Pudukkottai West, Pudukkottai Central, Pudukkottai East, Vadakkarapathy, Elappully-I and Malampuzha-II. Dr. Sahely Bhadra is the institute coordinator of IIT Palakkad UBA Cell.

1.1 Distribution of Alcohol-based hand sanitizer during COVID-19 pandemic

IIT Palakkad has also been playing a proactive role in protecting the public and medical professionals from the first line of infection. Ever since the spread of COVID-19 took place, IIT Palakkad has been making hand sanitizer in its chemistry laboratories and supplying it to the public totally free of cost. Till date, IIT Palakkad has supplied close to 600 litres of IPA based hand sanitizer to various hospitals in Palakkad.



1.2 Smart Farming Project

This project proposes a unique combination of AI and smart technologies such as internet of Things (IoT) and Cyber Physical Systems (CPS) to overcome pressing challenges like urbanization, shortage of water resources, reduction in farming land, increased use of uninformed

choices for pesticide and fertilizer which are the deterring factors that hinder proper growth in the Agricultural productions in India. We have compartmentalised the technology transfer in the following three steps.

- (a) Smart water and fertilizer dispenser
- (b) AI based preventive framework for plant diseases
- (c) Supply & Demand for Agricultural commodities



1.3 Video Conference with People's Service Society, Palakkad

A video conference was conducted with the People's Service Society Palakkad to discuss the 'Water Security Project' of Water Aid in the Pudussery and Elapullay Grama Panchayat. The discussion was held as a part of the activities of IIT Palakkad's Unnat Bharat Abhiyan and Jal Shakthi Abhiyan to give technical support to the organisations working in the adopted villages.

Some of the main points discussed:

1. The main objectives of the Water Security Project are Water Conservation, Water Access & Management, Water Quality Management and Waste Management.
2. The major components of the projects are
 - Restoration of public dug wells.
 - New Water Supply Schemes.
 - Dug well recharging & Aquifer strengthening.
 - Roof Water Harvesting structures.
 - Anganwadi safe water.
 - Drinking water Dispensers to Schools.
 - Solid waste management.
 - Liquid waste management- Greywater treatment.
 - School Hand wash units.
 - Pond stormwater recharging.
 - Check Dams & Gully plucks.
 - Borewell recharging.

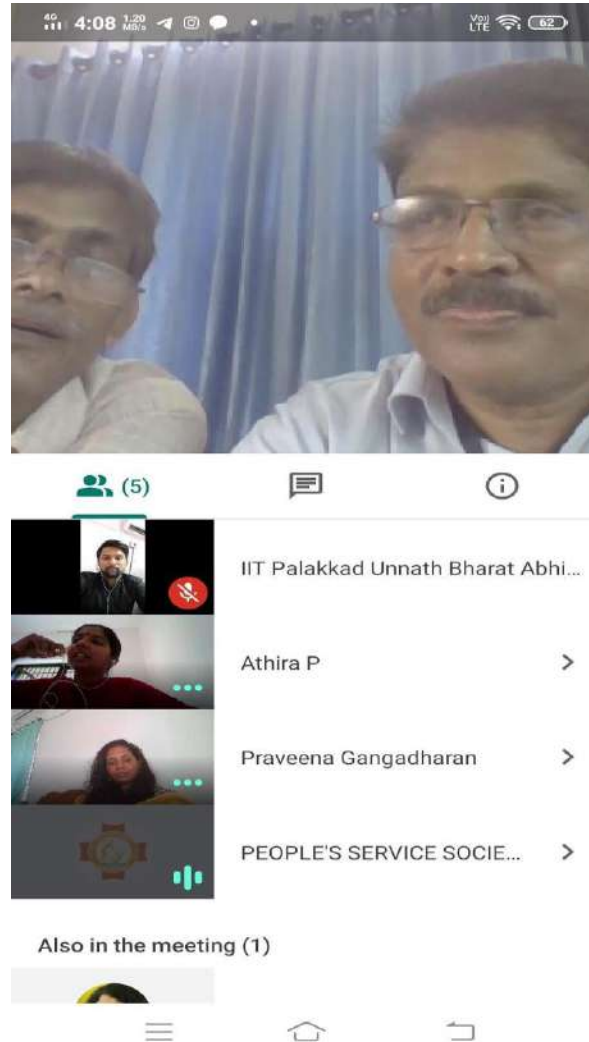
Best Practices discussed

- Dug well recharging -1600 wells recharged
- Sustainable community-owned or managed water supply schemes in 30 Hamlets.
- 150 trained grass-root technocrats and para hydrologists to support operation and maintenance and water quality mitigation measures.

Challenges/ Concern discussed

- Prevailing water sector scenario is very critical.
- A large number of defunct public well and water sources need restoration
- Water quality is an issue due to high industrial pollution and no effluent management systems.

- Unscientific water management practices in the industry and farming sector - need a holistic approach for water conservation.
- Recharging of borewells in Elappully.



1.4 A Study on the initiatives to combat COVID-19 by Pudukkottai and Malampuzha Gram Panchayat

Pudukkottai and Malampuzha Grama panchayat in Palakkad District have started taking precautionary measures to combat COVID-19 as per the Kerala government circular to Local Self Government Departments dated 01/02/2020. Broad and extensive campaign activities related to personal hygiene like washing hands with soap quite often, avoiding sneezing and spitting in public spaces, avoiding public interactions with persons showing symptoms such as fever, cold etc. The

campaign was conducted in different schools, residence associations, office complexes, business establishments etc. All persons working in the Public Health Centre and other medical institutions have been advised to follow the Information Control Protocol by the Health Department. Gram panchayats have also been instructed to share Home Isolation Protocols to the persons coming from COVID-19 affected regions and to their primary contacts and also to facilitate the treatment of persons affected by COVID-19 as per Health Department protocol. By 11/03/2020 Gram panchayats have instructed the people to avoid public gatherings in religious institutions, marriage functions etc. Gram panchayats monitored educational institutions are not open for any kind of activities such as tuition classes, special classes or vacation classes other than for conducting High School and Higher Secondary exams. Door-to-door campaign started from 16/03/2020 onwards in the Gram Panchayats for creating personal hygiene awareness. The Department of Revenue – SDMA and Department of Police have their specific cells working in close coordination with the Gram Panchayat. The District Collectors are overall incharge of activities at the district level.



Sl No:	Description	Pudussery East	Pudussery West	Pudussery Central	Malampuzha - II
1	Awareness Activities including 'Break the Chain Campaign'.	✓	✓	✓	✓
2	Installation of Hand washing facilities in Public Places.	✓	✓	✓	✓
3	Daily monitoring of the people who are in home isolation.	✓	✓	✓	✓

4	Supply of food materials to the vulnerable sections and quarantine people	✓	✓	✓	✓
5	Community kitchen to supply free meals	✗	✗	✓	✗
6	Support for agriculture allied activities	✓	✓	✓	✓
7	Disinfecting public places with the help of the Fire & Safety Department	✓	✓	✓	✓
8	Relief camps for Migrant Labourers	✓	✗	✓	✗

1.5 COVID-19 And Lifestyle Changes Amidst Pandemic, Interaction session with Dr. Bidisha Biswas

UBA Cell of IIT Palakkad organised an online interactive session on COVID-19 and lifestyle changes amidst pandemic, with Dr. Bidisha Biswas, Ahalia Women & Children's Hospital as the speaker and Dr. Dinesh Jagadeesan, Assistant Professor, IIT Palakkad as the moderator. The online session was conducted on 2nd October 2020 on Zoom platform.

Dr. Dineesh Jagadeesan started the session by welcoming the guest and the participants. He expressed his happiness on organising this event on the occasion of Mahatma Gandhi's birth date as his simple lifestyle was influenced by many people. He also expressed his concerns about losing health to gain wealth by following an unhealthy lifestyle. He also added that because of this, people end up spending wealth to regain their health.

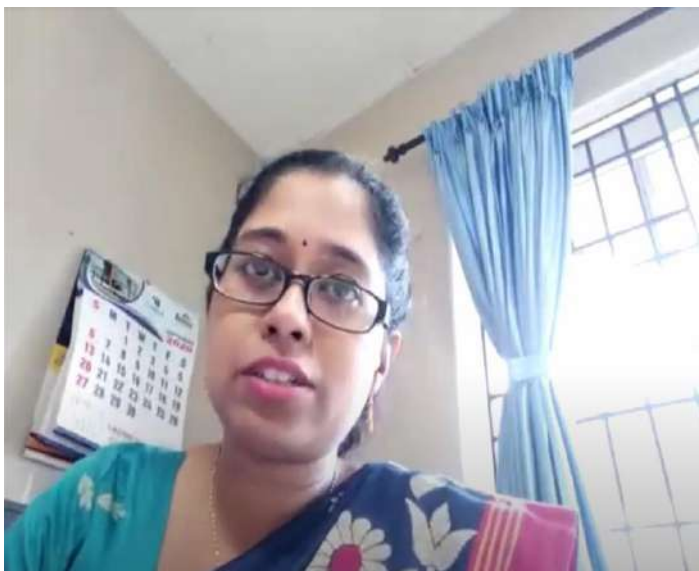
Dr. Bidisha Biswas started her session explaining the impact of COVID-19 pandemic in our day to day life. She highlighted a few steps to stay healthy during this situation and she asked the participants to start doing some physical activities such as yoga, push-up, sit-ups, cycling inside the local campus etc. She also shared the importance of following a proper diet. She pointed out the need for self-care especially for the people suffering from hypertension, asthma etc and should

continue their ongoing medications and consult the doctor for regular check-ups. She also mentioned the importance of eye care as the screen time has increased especially among kids. She has also advised everyone to wear a mask on a regular basis.

Question and Answer section

Dr. Dinesh asked Dr. Bidisha about her thoughts on a difficult question about how the COVID-19 pandemic would end. She confirmed it is difficult to apprehend the development of the pandemic situation and a possible vaccine. She said there are chances of getting a vaccine for COVID-19 soon and also mentioned that not to be anxious about the pandemic as the mortality rate is less than 3%. Replying to a question, Dr. Bidisha shared the mode of transmission of the virus and chances of getting infected from an asymptomatic person. People are physically affected in different ways by the virus such that people with existing cardiopulmonary diseases are more prone to have adverse effects. But it is also important to be cautious as there are cases of adverse infection in healthy individuals as well. The moderator then asked a few lifestyle-related questions and she replied to all the queries related to it.

The interactive session was fruitful in clearing doubts and also sensitizing the lifestyle changes required to adapt to the new normal.



1.6 Waste/ Energy Management Contest

A Waste/Energy Management contest was organised by the UBA Cell of IIT Palakkad in connection to the commemoration of the 151st Birth Anniversary of Mahatma Gandhi to offer the

perceptions and suggestions on how we could achieve a cleaner environment with responsible management of waste and energy. The winners were facilitated with certificates and cash prizes.

WASTE/ENERGY MANAGEMENT CONTEST WINNERS

FIRST PRIZE

Akshay V. Mahida

Second Year

M.Tech (Manufacturing and Materials Engineering)

Problem Identified

Problems caused by water hyacinth to navigation, irrigation and power generation, as well as the increased BOD level threats to aquatic ecosystems.

Proposed Solution

Generate biogas from water hyacinth resulting in creating clean energy source and reducing harm to aquatic system.

SECOND PRIZE

R K Raj Surya

Second Year

Btech (Mechanical Engineering)

Problem Identified

Improper reuse and disposal of wet waste.

Proposed Solution

Convert wet waste into bio gas independently in individual houses and hence use it as an alternative to LPG.



IIT PALAKKAD



IIT PALAKKAD UBA CELL

1.7 Gram Sabha in Pudussery East, Pudussery West and Pudussery Central

Gram Sabha is a forum for people's participation in governance. It provides the opportunity to the rural people to get involved in the development programmes of their locality and also make the administration transparent. In order to discuss the issues pertaining and formulate the development activities for the year 2021-22, Gram Sabha meetings were conducted in all the 23 wards of the Pudussery Gram Panchayat. Being a Participating Institute (PI) of UBA, IIT Palakkad has actively participated in the Gram Sabha meetings conducted in the Pudussery West, Pudussery Central and Pudussery East Villages. Some of the initiatives planned in the Pudussery Gram Panchayat for the year 2021-22 are as follows:

- Electric fencing in the hilly areas
- Ploughing wages for paddy cultivations
- Distribution of paddy seeds
- Distribution of vegetable seedlings to Kudumbhashree units
- Construction of chicken coops, cattle barn in the MGNREGS
- Generation of self-employment opportunities for Self Help Groups
- Smart classrooms in Anganwadi
- Waste management systems in Anganwadi
- Skill development training for Kudumbhashree members
- Improvement of lab facilities in schools
- Waste bin in all the households.

The important topics discussed/raised during the Gram Sabha are:

1. Waste Management in Pudussery Gram Panchayat

It was decided by the Gram Panchayat to strengthen the waste management in the panchayat by the active participation of Haritha Karma Sena. The Panchayat decides to make an agreement with Clean Kerala Company for the collection of collected wastes from the panchayat.

2. Mahatma Gandhi National Rural Employment Scheme

It was decided by the Gram Panchayat to expand the scope of the activities of MGNREGA such

as digging waste pit, land up-gradation of agricultural land etc

3. Water Scarcity

Water scarcity has been a severe issue faced by the people in the Walayar region, especially in the summer season. This is mainly due to the fact that the water from the Malampuzha water project is not serving the concerned area. Most areas in the Panchayat called for an action to resolve the water scarcity in the summer.

4. Drainage

Drainage is an issue in almost all places in the Panchayat. It is not properly maintained and causes flooding in the rainy season.

5. Housing

During last year the Gram panchayat received more than 3000 requests for houses under the schemes of the State and Central governments.

6. Road

There are several requests for the construction and maintenance of village roads across the Panchayat.

7. Human-Elephant conflict

There are several occurrences of Human-Elephant conflicts in the Panchayat and destruction of crops.





1.8 Household survey of Pudussery East, Pudussery Central and Pudussery West Villages

A household survey of the adopted villages was undertaken with the help of Kudumbasree members and data were uploaded in the UBA portal. A total of 414 Households and 1664 population were covered during the survey. An agriculture survey was also conducted to understand the agriculture scenario of the adopted villages.

Sl No:	Village Name	No: of HHs covered	No: of Population Covered
1	Pudussery Central	131	524
2	Pudussery East	181	718
3	Pudussery West	102	422
	Total	414	1664

1.9 Well Census Programme

Well Census Programme initiated by the Kerala State Ground Water Department was conducted at IIT Palakkad from 03-03-2021 to 02-04-2021 with the assistance of four external interns. The Well Census Programme aimed to develop the groundwater database of Pudukkottai Gram Panchayat. The interns successfully conducted household surveys and collected relevant data in



Pudukkottai Grama Panchayat, with the use of an android application called ‘NEERARIVU’ developed by Kerala State Remote Sensing and Environment Centre. Data has been collected for a total of 2138 wells/structures from Pudukkottai Grama Panchayat.

2. Indian Institute of Management Kozhikode

The Annual Progress Report of Unnat Bharat Abhiyan (UBA) activities of Indian Institute of Management, Kozhikode (IIMK) for the financial year 2020-2021 consists the field and online activities (amid COVID 19 scenario) carried out by UBA Cell, IIMK in the time frame April 2020 to March 2021. The report includes monthly wise activity reports in a brief description and attached proofs of photos.

2.1 Helping hands in the crisis hour of COVID-19

The need of the hour for the villages during lockdown has analyzed and intervened accordingly. As a part, with the support from IIMK Alumni Association, Rupees One Lakh has been donated to Gov. Medical College, Kozhikode, as a relief fund for the replenishment of consumables essential for the treatment of COVID19. In addition to that, 50 numbers of Family Kits with hygiene items were distributed to the police staff of our local Police Station Kunnamangalam.



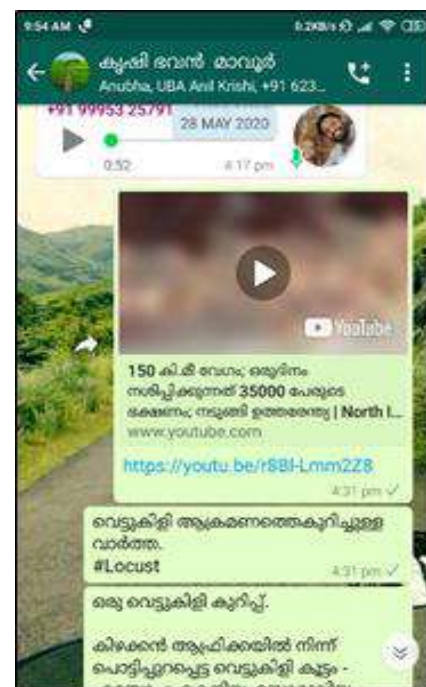
2.2 Online activities at adopted villages during lockdown

As lockdown prevailed in the country, field activities were stalled in the adopted villages. Hence, in line with the guidelines and instructions from UBA Coordinating institutes, online activities were boosted in adopted villages. A Whatsapp group consist of Panchayat Board members and other officials have been created for each village. The situations in the villages amid the COVID19 scenario was analyzed via Whatsapp groups and phone calls. Also, COVID19 awareness has been given via posters, videos and passing information from both state and central governments.

Further, to keep people occupied positively at home, especially children and youth, self-learning platforms (ICT initiatives) provided by MHRD and UGC has also been introduced to the villagers.

2.3 Facilitation of farmers concerns with Krishi Vigyan Kendra (KVK)

As instructed by the UBA Coordinating institute, UBA cell, IIMK joined separate Whatsapp groups for farmers in each village through which Krishi Bhavans of the concerned Panchayats communicated directly with farmers in the village. UBA cell is also involved in the discussions from time to time. UBA Cell acted as a facilitator between farmers and Krishi Vigyan Kendra.



2.4 Rapport Building with Puthur and Puthuppadi Villages

Since the lockdown started in March, UBA Cell IIMK couldn't conduct an initial meeting then with Puthur and Puthuppadi villages. However, in June, during Unlock 1.0 in the country, UBA Cell made a special effort to meet Panchayat officials to orient about UBA activities to Board members and staff of Puthur & Puthuppadi Gram Panchayats. As part, initial discussions happened with the President, Secretary and Vice President and assured the permission to address the next Board Meet of respective Gram Panchayats. Prof. Anubha, UBA Coordinator, IIMK, along with Mr Ubaidulla KV, UBA officer, had then directed the Board Meet of Puthuppadi on 05.06.2020 and of Puthur (Omassey GP) on 09.06.2020. All the queries of Board members had cleared, and

the complete support for the field activities was acquired. Separate meetings also conducted with CDS Chair for the smooth conduction of the UBA household survey. Survey forms have also provided to them



2.5 Field Visits to Mavoor Village

As the survey activities are at stake amid the COVID19 scenario, UBA Cell IIMK tried to find parallel operations to be done under UBA. Several discussions were conducted with Panchayat officials for involvement in the technical intervention at Mavoor, with permission from the Regional Coordinating Institute, IIT Palakkad. As part, a proposal on E-Centre cum Online Study Centre has been prepared by having marathon discussions with Member, Ward 15, natives and site visits. Also, the Krishi office has agreed to partner with UBA, IIMK for their plans to extend Krishi Bhavan services in the village. The skills of IIMK students will be used once they reach campus after lockdown for implementing the projects. Suggestions from farmers will also collect through Focus Group Discussions.



2.6 Proposal of 'Jaalakam'- E- Centre Mavoor

UBA Cell, IIMK drafted a proposal named 'Jaalakam – E- Centre' for the Mavoor village and submitted it for the institution's approval. The proposed project has aimed to create a hub for all E-Learning activities of Kalpally Ward by developing it into an online study centre and career desk for students, youths and women. The skillsets of IIMK students will be used in the second phase. The project was developed by having a marathon discussion with Mavoor Panchayat officials and ward people.

The proposal from the UBA Cell, IIMK for the educational & career upliftment of Mavoor village – E-Learning Hub – has been approved by the competent authority of the institute. UBA Cell had ongoing discussions with Panchayat officials as well as the institution bodies. As a result, the Panchayat Board of Mavoor has approved the proposal by making it an agenda in their Board Meet. The Board decision was then officially received by UBA Cell. The further actions are being taken by the UBA Cell to implement the project at the earliest.

This initiative of UBA Cell, IIMK has reached various print & online media in both Malayalam and English. The Hon. Minister of Education, Shri. Ramesh Pokhriyal and the Ministry of Education (MoE) praised the efforts of IIMK in the UBA activities, in their official Twitter handles. UBA-NCI has also retweeted the news reports on E-Learning Hub.



2.7 Sensitisation on NEP 2020

UBA Cell, IIMK conducted webinar on National Education Policy 2020 on 05th October 2020, as a follow up of the MoE weinar and guidelines for the dissemination of features of NEP 2020. The virtual session met with an overwhelming response as more than 450 enthusiastic participants were introduced and briefed on the various aspects of NEP 2020, by an expert panel of IIMK faculty members. Prof. Anubha Shekhar Sinha, Coordinator, UBA Cell, IIM Kozhikode, welcomed the keynote speakers. The Webinar session was divided into three parts and began with an ‘Introduction to NEP 2020 and Higher Education’ conducted by Prof. Anandakuttan B Unnithan, Dean, Academic Affairs & Development, IIM Kozhikode. This was followed by a session on ‘Strategies & Tips for Setting up Virtual Learning Platform Designed for NEP 2020’ conducted by Dr M G Sreekumar, Chief Librarian & Information Officer and Adjunct Professor, IIM Kozhikode. Prof. Ashok Thomas, Assistant Professor, IIM Kozhikode, concluded the session with his insights on ‘School Education and NEP 2020’. The three experts also responded to various queries and doubts regarding the implementation of NEP 2020 fielded by the virtual audience during the Q& A round of the session.

The webinar witnessed participation from a diverse set of stakeholders – students, faculty members, district and gram panchayat members, educators, public servants, research scholars, library professionals, administrators and educationists – from the neighbouring community and schools around Kozhikode. Members from organisations and institutes such as IIM Bangalore, IIM Kozhikode, IIT Palakkad, Central University of Kerala, Pondicherry University, IIT ISM

Webinar on

National Education Policy 2020

Organized by
Unnat Bharat Abhiyan Cell (UBA)
Indian Institute of Management Kozhikode

05th October 2020, Monday
9.30 am – 11.15 am
Venue: Zoom Platform



<https://bit.ly/3uJwzWd> | <https://www.zoom.us/j/92876543210?pwd=REZkdjYVYmRlc0pQd0FkZWpScDZkdz09>

Introductory Note



Prof. Anubha Shekhara Sinha
 Coordinator, UBA Cell
 IIM Kozhikode

Key Note Speeches

 Prof. Anandakuttan B Unnithan Dean, Academic Affairs & Development IIM Kozhikode	 Dr. M G Sree Kumar Chief Librarian & Information Officer IIM Kozhikode	 Prof. Ashok Thomas Assistant Professor, UBA Cell IIM Kozhikode
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*Higher Education and NEP 2020 *Strategies & Tips for Setting up Virtual Learning Platforms Designed to NEP 2020 *School Education and NEP 2020

Email : sdp@iimk.ac.in Phone : 9744074262

Dhanbad, Bharatidasan University, NIMHANS, PGIMER, Kerala University, Calicut University, MG University Kottayam, Farook College, Kozhikode, Rajagiri College of Social Sciences, BCM Kottayam, MES College also participated in this virtual meet.

2.8 Discussion with CDS Chairs of the adopted villages

Since the arising of Covid19 and followed by lockdown from March 2020, the UBA village & household surveys are being at stake. Panchayat level CDS (Kudumbashree) committees were agreed to facilitate the surveys in the villages. They were briefed about the process and given the survey forms in March 2020 itself. However, they couldn't initiate the process yet amid the Covid19 scenario. UBA Cell, IIMK has been in regular touch with the CDS Chairs and checked the possibility of conducting surveys in due time. In this background, UBA Cell IIMK contacted them again in January 2021 to seek the possibility of initiating the process. CDS Chairs shared their concerns that the survey can't be done now where the country's highest number of Covid19 cases are reported in Kerala. They requested to delay the process for some more weeks.

2.9 Field Visit to Mavoor GP & Meeting with Board Members, Secretary and Librarian

Since the technical & budget approval has been received for the project 'E-Learning Hub, Mavoor', the Project Associate visited the Mavoor Gram Panchayat to speed up implementation from their side. A meeting was conducted with the new Panchayat Board Committee on 17th March 2021 at the President's chamber. Panchayat Secretary and the Panchayat Librarian were also present. The project proposal and journal of the activities so far has been briefed by the Project Associate to the new members of the Board Committee. A detailed discussion on the implementation of the project had also arisen. The Librarian explained the status of the proposed site and the possibilities of implementing the project at the library. Earlier, the Project Associate visited the library & the proposed site and discussed the plan of implementation with the Librarian. The Project Associate gave assurance of accelerating the IIMK's side proceedings as the next stage



is the purchase of material requirements. The board members also promised wholehearted support for all the future collaborations of UBA Cell with the Mavoor Village.

2.10

3. Vimal Jyothi Engineering College

The Unnat Bharat Abhiyan Cell of VJEC is inspired by the vision of transformational change in rural development processes and has been conducting regular activities related to entrepreneurship and product development including development of Coconut Leaf Broom Making Machine for Village Households, Smart Ambulatory Monitoring for Alakkode Old Age Homes. Hybrid bamboo structured solar dryer etc. UBA Cell of Vimal Jyothi Engineering College, has constituted a R & D / Product Development Cell to promote the IEDC supported Start-up and Product Development.

A research team was formed under the leadership of Dr. T D John, Dean Research with the following faculty members:

1. Dr. V Sampath Kumar, Professor, Applied Electronics and Instrumentation
2. Mr. Sunil Paul, Associate Professor, Mechanical Engineering
3. Mr. Sarin C R, Assistant Professor, Electrical and Electronics Engineering.

The team conducted regular online meetings and made visits at COVID hospital for studying their main requirements. Based on the suggestions given by Dr. Ajith Kumar, Nodal Officer, the team has developed many products.

3.1 Projects undertaken – overview (during the covid-19 period)

SL No:	Product Developed	Consumer / Beneficiary
1	Ventilator	1. KnowHy 2. ASAP 3. ICTAK 4. KTU 5. Tu Delft University Note: An online open course is planned to be launched very soon.

2	Automatic sanitizer	District Covid Treatment Centre Kannur
3	Pedal operated sanitizer	1. Kannur International Airport 2. District Covid Treatment Centre. Kannur 3. Iritty Police Station 4. DYSP office Taliparamba 5. CI office Sreekandapuram 6. Kudiyanmala Police Station 7. 50+ Public health Centers and many other locations
4	Nightingale 19 - Robot	1. Kannur International Airport 2. District Covid Treatment Centre Kannur 3. Iritty Police Station 4. DYSP office Taliparamba 5. CI office Sreekandapuram 6. Kudiyanmala Police Station 7. 50+ Public health Centres and many other locations
5	Hercules 19	Under full proofing for medical compliance

6	Pedal operated hand wash	District Covid Treatment Centre Kannur
7	Two-wheeler-based sanitizer sprayer	Trichirapalli City Corporation
8	Patient Information system	District Covid Treatment Centre Kannur
9	Automated Kiosk	District Covid Treatment Centre Kannur

3.2 Products and projects

NIGHTINGALE-19 ROBOT

The robot is designed to carry food and medicine for patients in the COVID ward. Also, it is having a video calling facility to interact with patients in the COVID ward. Automobile parts are used for fabricating the robot. Two heavy duty wiper motors are used for driving the robot. Wiper motors are designed to run continuously at full load for longer duration and its reliability is very high. Instead of using a hobby grade remote, standard remote control used for aero modelling is used for controlling direction. Additional features like controlling the solenoid valve of tea/coffee dispenser and temperature sensor are performed using the same remote. Robot speed can be controlled for 0 to 20 m/min for easy navigation and control. Machine language is used for programming the controls for better reliability. Safety features like obstacle sensors and remotely operated buzzer can be attached for better safety of people around the robot.

Team behind the project

Students: Noyal Jose, Amal Babu, Daniel Paul Lalat

Faculty: Mr. Sunil Paul, Dr. T D John, Dr. V Sampath Kumar, Mr. Sarin C R

Facebook pages of Chief Minister and Health Minister

1. Sri. Pinarayi Vijayan, Chief Minister

[Click here find the post of Chief Minister of Kerala](#)

2. Smt. Shyalaja Teacher, Health Minister

[Click here find the post of Health Minister of Kerala](#)

3. Major Channels with links

- Times Now Channel

[Click here to find the news](#)

- Asianet News

[Click here to find the news](#)

3/12



TWEET OF THE DAY

It is to ensure the safety of the public that restrictions are being imposed all over the world. These Rules are not meant to break. Many people are still coming out of houses and roaming around in their vehicles during the lockdowns. Stay Home, Stay Safe.

Indian Express April-23

After a robot serving patients, Vimal Jyothi plans ventilator, mobile kiosk

W. A. RAJEEV KUMAR @kannur

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CARRYING food, water, and medicines for patients, Nightingale-19 is now walking the isolation ward corridors of the Covid treatment centre at Anjarakandy Medical College Hospital. Their newly-designed robot has become a matter of pride for the entire team of Vimal Jyothi Engineering College, Chembur.

However, even as their efforts were duly appreciated by the Health department, the team led by Dr T.D. John, Dean of Research, and Sunil Paul, HOD, Mechanical Engineering department, brushes this appreciation aside. It was important for them to contribute something to this massive battle against the virus, they say.

The team is now working on developing a ventilator that could be used in isolation wards, and a movable kiosk for doctors in the wards. "We need a clearance from the Medical Council of India to introduce the ventilator, which we expect to get soon. The work in connection with the kiosk is also under way," said Dr John.

According to the duo, the unyielding support of the management, headed by Bishop Mar Joseph Pamplany, was the real strength behind the team's success.

"Ever since the lockdown began, our college has been considering doing something creative and useful for the government," and Sunil. "Bishop Pamplany who is the chairman of the college, called a meeting with Fr. James Chelamanna, manager, Dr. Henry Joseph, principal, and the col-

lege faculty. In the meeting, we were asked to come up with ideas to contribute to the war against the virus," he said.

A team from the college subsequently got in touch with the Anjarakandy Medical College Hospital authorities.

During the call, nodal officer C. Ajith Kumar told them that their biggest struggle was the serving of food, water and medicines to the patients in isolation wards.

"In order to serve the patient food, a person from the canteen will have to wear the PPE, which costs ₹1,500 per piece. Also, a unit of PPE cannot be used for a second time. As they should enter the pa-

tient's room thrice a day, at least ₹4,500 is spent everyday for this purpose alone," said Sunil.

So, the four-member team which includes Dr Sampath Kumar and Dr Sarin started working on a robot.

"We just wanted it to be a simple, user-friendly robot that could be operated by health workers in the isolation wards. We can't afford an advanced model, as it would need occasional maintenance."

The team showed their first model to the medical college authorities, and then three more revised models, until it was fit for use. "We used the technology used in the wiper of cars," said Dr John. The team had also got the support of local carpenters and a few students.

"The police department too stepped in, so that we could get some equipment revised from the shops," said Sunil.



The Vimal Jyothi Engineering College, Chembur

Even since the lockdown began, our college has been considering doing something creative and useful for the government

Sunil Paul, Mechanical Engineering Department

BREATHING SUPPORT DEVICE- MINI VENTILATOR

The need for a breathing support device for emergency situations like COVID-19, in case of shortage of full-fledged ventilators prompted the design and fabrication of a low-cost portable breathing support system. It can be used in emergency situations even at households and primary health-centres. The bag-mask valve bag is a manual resuscitator which is used to provide positive pressure ventilation to patients who are feeling difficulty in breathing. This bag mask valve bag is placed horizontally on a platform with rack and pinion arrangement for making horizontal movement. This arrangement helps to fix the bag-mask valve bag on the exact position as per the requirements. A motor is used for pressing the bag-mask valve bag. This is done by using a slider crank mechanism which converts rotary motion to linear motion. Thus, the bag-mask valve bag will be pressed and released alternatively which in turn induces pumping of air. The rate of pressing and the speed of pressing can be controlled depending on the patient's beat rate and various other parameters. This is a microcontroller-based system. Different parameters such as heart beat rate, respiratory rate, air intake rate, blood pressure etc are given as inputs to the microcontroller. The microcontroller evaluates the inputs and the speed of the motor is controlled. Also, we are using two sensors, a pressure sensor and a flow sensor. Pressure sensor is used to find out negative pressure and increase the stroke and the Flow sensor is used to maintain residual volume in the lungs. An LCD display is used for displaying the parameters and the pair of switches is used for navigation. This full arrangement is fixed on a platform and this platform is fully portable. We have made interactions with European FP7-project (funded by the European Commission and coordinated by the Fuel Cell and Hydrogen Joint Undertaking) that aims at providing to the widest possible audience of technicians specific training modules, practical, in an appropriate format and at affordable cost, to facilitate the deployment of the FC&H2 technologies expected to enter the market within the time frame 2014-2020.

KnowHy intends to create six different courses with one common core module and five different specialisations modules. Courses will be supported in E-learning format and will be available in multiple countries and in 7 languages (English, German, French, Italian, Spanish, Portuguese and Dutch). With the support from KnigHt and many academic / research partners are planning to launch an open source ventilator design course.

Engineering students develop portable mini-ventilators

Prototypes follow criteria recommended by SCTIMST

STAFF REPORTER
THIRUVANANTHAPURAM

Chipping in with their technical expertise to boost the efforts to contain the COVID-19 pandemic, engineering students in the State have developed mini-ventilator models that could serve as portable breathing assistants to support patients with respiratory problems.

Evolving solutions for challenges thrown by APJ Abdul Kalam Technological University to mitigate the prevailing crisis, the affiliating colleges have designed the prototypes at their fab labs in line with the respiratory process criteria recommended by experts at the Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST).

Teams from 34 colleges participated in a competition organised by the University COVID-19 Cell to de-



A portable breathing assistant developed by students of TKM College of Engineering, Kollam.

sign low-cost and easy-to-use ventilators that could serve COVID-19 patients in during exigencies.

Vimal Jyothi Engineering College, Kannur; Saint Joseph Engineering College, Pala; TKM Engineering College, Kollam; Model Engineering College, Trikkakara; and Mangalam Engineering College, Kottayam, have conceived the best prototypes.

According to Vrinda V. Nair, Dean (Research), these colleges will be awarded ₹20,000 each from the Centre for Engineering Research and Development of the university.

Incentive

The institutions have been directed to install the respiratory support models in the COVID-19 hospitals in the respective districts after obtaining permission from the District Medical Officers.

Besides, ₹5,000 will be given as an incentive to colleges that presented the best designs.

An expert panel led by SCTIMST scientist C V Muralidharan and Balasubramaniam O.A., managing director of Tamil Nadu-based Roots Cast Pvt Ltd., adjudged the best working models through video conferencing.

AUTOMATIC SANITIZER DISPENSER

Safely managed water, sanitation, and hygiene (WASH) services are an essential part of preventing and protecting human health during infectious disease outbreaks, including the current COVID-19 pandemic. Covid-19 could be prevented by adopting extensive hygienic behaviours. Using bottles for hand washing needs direct contact with the bottle. If many people are using the same sanitizer, this may cause spreading of viruses. In this project, an Automatic Hand Sanitizer Dispenser with Proximity sensor which will automatically detect the human presence and provide Sanitizer solution. This idea was developed to prevent people from having to touch the dispenser of the hand sanitizer, ensuring that it always remains germ-free.



LEG OPERATED HAND SANITIZER DISPENSER

The proposed system contains two major components, pedal operated lever and an actuation system with nozzle for dispensing sanitizer. Both of the units are connected using an automobile brake cable for better flexibility. This device is purely mechanical operated so the running cost is absolutely nothing. Major materials used in this project are MDF sheets and automobile brake cable. Both are water and dust proof so it can be used in any weather conditions and both are highly reliable materials. Another advantage of this system is that it is designed for connecting the sanitizer inlet tube to a separate container so that the device can be connected to any type of container. This will reduce the requirement of frequent changing of sanitizer bottles.



HERCULES 19 - EV KIOSK

It is an Electric Vehicle based mobile Kiosk. The doctor can sit inside the Hercules 19, designed in a square shape. There are two holes through which the doctor can extend the hands to the patient. The doctor will use double layered disposable gloves. There is an automatic sanitiser unit, which can be operated with a doctor's leg. A disinfecting mist will be sprayed after the patient's exit. An electric mobility is added which helps the doctor to drive the Kiosk to patients.

The kiosk will not require the staff to wear Personal Protective Equipment (PPE). The staff can stand inside the kiosk and collect the throat swabs without exposing themselves to the person under observation. The exposed part of the glove will be sanitised after each use.

The PPE kits which cost about Rs 1,200 per piece cannot be used more than once. Though at present there is no severe shortage of the kits in Kerala, medical staff have raised concerns that if there happens to be a sudden surge in the number of COVID-19 cases, then PPE kits' availability will become a problem.



പൊതുവിശേഷം

★ കൂടുതൽ, ന്യൂനീതി പഞ്ചായത്തുകൾ
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TWO-WHEELER BASED SANITISER

These days, disinfectant jets, mists and sprays seem to have become weapons of choice against the coronavirus in public areas. A two-wheeler-based sanitiser spray will spray disinfectants in a hot-spot area or a street or at a congested and densely populated locality. It could be attached to any two-wheeler or other vehicles. The system can be utilized for sanitizing shelter homes, quarantine centres and isolation wards. Wiping down surfaces with bleach is laborious. This project is under development and will be implemented within a day or two.



PEDAL OPERATED HAND WASH

This project is designed for District Covid Treatment Centre Kannur and is under development.

PATIENT INFORMATION SYSTEM AND TRACKING

This project is designed for District Covid Treatment Centre Kannur and is under development.

AUTOMATED KIOSK FOR PHARMACY AND SHOPPING MALLS

This project is designed for Pharmacies and Shopping malls and is under development.

AUTOMATED MASK DETECTION SYSTEM

This project is designed for public areas and is under development.

3.3 Media reports

➤ Time Now Channel:

<https://www.youtube.com/watch?v=XA0qu4C968w>

➤ Indian Express:

<https://www.newindianexpress.com/good-news/2020/apr/21/robot-designed-by-kerala-engineering-students-joins-fight-against-covid-19-2132998.html>

➤ Economic Times:

<https://economictimes.indiatimes.com/news/politics-and-nation/now-robot-is-part-of-keralas-fight-against-coronavirus/articleshow/75273490.cms?from=mdr>

➤ Times of India :

<https://timesofindia.indiatimes.com/city/kozhikode/now-nightingale-of-kannur-to-the-aid-of-covid-hospital/articleshow/75258069.cms>

➤ Mathrubhumi :

<https://english.mathrubhumi.com/news/good-news/-nighthingale-1robot-to-help-covid-19-patients-in-kannur-1.4703214>

➤ Outlook :

<https://www.outlookindia.com/newscroll/now-robot-is-part-of-keralas-fight-against-coronavirus/1809934>

➤ MSN:

<https://www.msn.com/en-in/video/healthandfitness/robot-in-kannur-hospital-to-assist-healthcare-teams-in-treating-covid-19-patients/vi-BB12XtdL>

➤ Business India:

<https://www.businesstoday.in/magazine/technology/tech-rescue/story/403609.html>

➤ Business Live:

<https://www.businessonlive.com/startups/58098>

➤ Asianet News:

<https://www.youtube.com/watch?v=DefMm-0sIlQ>

4. Ahalia School of Engineering and Technology

4.1 Workshop on Rural Entrepreneurship Opportunities

An online workshop was conducted on 3rd November 2020 for students to create awareness about rural entrepreneurship opportunities. Workshop was attended by people from various sections of society. The workshop stressed on various opportunities for entrepreneurship and urged people to come forward as entrepreneurs. The session was handled by experts from various fields.

4.2 Panel Discussion to ‘Celebrate International Day for The Elimination of Violence Against Women’

To celebrate International Day for the Elimination of Violence Against Women, an online panel discussion was organised by the Ahalia Group Academic Institutions in association with Unnat Bharat Abhiyan, under Ministry of Education , Government of India and IEEE Women In Engineering(WIE) SB AG, Ahalia School of Engineering & Technology (ASET) on 25 November, 2020. The event coordinators were Mrs. Kripa K. M., HOD, Department of Civil Engineering, ASET and Mrs. Bindu Valoor, Manager-Academics Outreach. 250 participants attended the event via Google Meet and 300 participants watched the YouTube live streaming. The eminent panelists gave awareness about domestic violence, the importance of self awareness among women to eradicate violence against them and the endless opportunities women have if they choose to excel.

YouTube link : <https://youtu.be/uDXNJg5kcfY>



4.3 Webinar on ‘Educated Youth in Agriculture: Opportunities and Threats’

Ahalia Group Educational Institutions in association with Unnat Bharat Abhiyan and Rural Entrepreneurship Development Cell under the Ministry of Education, Govt. of India, Institute’s Innovation Council and ASET Alumni Association is organising a Panel Discussion on 23 December 2020 from 4 to 6 p.m. on the topic ‘Educated Youth in Agriculture: Opportunities & Threats’.

YouTube Link : <https://youtu.be/5mJRZAAoonM>



4.4 Panel Discussion on ‘COVID 19 Vaccination and Thereafter’

On 26 January 2021, Ahalia Forum, an initiative of Ahalia Group Educational Institutions, in association with Unnat Bharat Abhiyan, Ministry of Education, Govt. of India and Institution’s Innovation Council, Ministry of HRD, Govt. of India, organised a panel discussion on COVID 19: Vaccination & Thereafter. Dr. V.S. Gopal, Chairman, Ahalia Group Institutions offered the keynote address. Dr. P. R. Sreemahadevan Pillai, Director, Ahalia Group Academic Institutions presided. Dr. Amar Fettle, State Nodal Officer for Health, Government of Kerala inaugurated the event. Panelists: Dr. B. Padmakumar, Professor-in-Charge of COVID 19 ICU, Government Medical College, Alappuzha, Dr. Prem Narayanan, Consultant & Head, Department of Endocrinology & Diabetology, Ahalia Diabetes Hospital, Palakkad, Prof. Roshan Sanu Y. COVID Survivor, Ahalia School of Engineering & Technology addressed and led the discussion. 146 participants attended the event via Google Meet.

YouTube link: <https://youtu.be/N7E2pRgWF5g>



4.5 Panel Discussion on ‘National Education Policy – 2020’

On 30 January 2021, Ahalia Forum, an initiative of Ahalia Group Educational Institutions, in association with Unnat Bharat Abhiyan, Ministry of Education, Govt. of India and Institution’s Innovation Council, Ministry of HRD, Govt. of India, organised a panel discussion on National Education Policy - 2020. Dr. P. R. Sreemahadevan Pillai, Director, Ahalia Group Academic Institutions, presided. Dr.

M. Abdul Salam, Former Vice Chancellor, University of Calicut inaugurated the event. Expert Panelists: Prof. Venkatesh Raikar, Former Vice Chancellor, Director (Quality Assurance) KLE Technological University, Hubli, Karnataka, Mr. Jomy P. L., Educational Expert, addressed and led the discussion. 165 participants attended the event via Google Meet.

Programme link:

https://drive.google.com/file/d/1Fusf9AAPLFjDDUUKaGYYbwkZEF4uMnqS/view?usp=sharing_eil&ts=60825368



AHALIA FORUM
CONNECT CONVERSE CONVERGE
An Initiative of India Group Academic Institutions



**INSTITUTION'S
INNOVATION
COUNCIL**
Initiated by AIG Institutions

PANEL DISCUSSION ON NATIONAL EDUCATION POLICY 2020



INAUGURAL ADDRESS
Dr. M. Abdul Salam
Former Vice Chancellor
University of Calicut



PRESIDENTIAL ADDRESS
Dr. P. K. Sreenivasarao Pillai
Director, Ahalia Group Academic
Institutions, India

20 January 2021
4.00 p.m. to 6.00 p.m.

EXPERT PANELISTS



Prof. Venkatesh Balakrishnan
Former Vice Chancellor,
Director (Quality Assurance),
IITJ Technologies,
University of Kerala, Kottayam



Mr. Jomy P. L.
Educational Expert

Event Coordinators
Minsha Vaidyan - Lakshmi Suresh
No Registration & Participation Fee
E-Certificates will be provided.

CALL / WHATAPP - 94960 00133
WEBSITE - <https://ahalia.edu/Events/PanelDiscussion2021>

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5. Mary Matha Arts & Science College, Mananthavady, Wayanad

5.1 Conducted a survey from 21-09-2020 to 24-09-2020 for testing the awareness on NEP 2020 among teachers, parents and students in the adopted villages.

Survey Report

Total Participants: 107

Parent: 74%

Student: 16%

Teacher: 10%

Awareness about NEP-2020

Yes: 61%

No: 4%

Partial: 35%

- 36% of the participants think that a change from 10+2 structure to 5+3+3+4 will have a positive impact and 56% of them think they are not sure of its impact.
- 45% of them believe that NEP 2020 will increase the quality of education by minimizing rote-learning and 48% of them are not sure of it.
- 36% of them believe that NEP 2020 increases Gross Enrolment Ratio in higher education (including vocational education) to 50 % by 2035 and 55% are not sure of it.
- 72% of them like the changes in the new combinations of subjects (for example Maths with Music, History with Painting etc) and 22% of them are not sure of it.
- 41% of them believe that NEP 2020 creates a joyful, safe and comfortable environment for teachers and 50% of them are not sure of it.
- 62% of them believe that NEP 2020 will make an overall change in the education system of our country and 36% of them are not sure of it.

5.2 Online Webinar about NEP 2020

A webinar was conducted on National Education Policy-2020 via Google Meet on Sep 23,2020. Mr George Thomas, Associate Professor and Head, Department of English, Mary Matha Arts & Science College, Mananthavady was the resource person. The resource person spoke on the salient features of the New Education Policy. Students, teachers and parents participated in it.

6. NAM College Kallikkandy

- All the Volunteers actively participated in Cleaning campaign (Mazhayku Munpe = Before the Monsoon rain) a project initiated by the University of Kannur in June 2020
- Online courses are being conducted through Coursera platform for the students' alumni and parents in adopted villages (3760 enrollments were held so far)
- Volunteers participated in Internet Availability Survey conducted by the Kannur University in the Month of June 2020.
- Volunteers participated in the “Two Day Orientation Programme on Disaster Management” through Google Meet organized by the Kannur University on 17-18 August 2020
- Volunteers participated in the Webinar on National Education Policy On September 24-2020 organized by Kannur University Teachers Collective and Kannur University Employees Union.
- “Everyone must be his own Scavenger “Mahatma Gandhi. A cleaning Campaign was organized by UBA and NSS of the College. All the volunteers actively participated in cleaning their own houses on 2nd October 2020
- Volunteers registered in “Aapath Mithra” a Disaster Management Team of Kannur University in the Month of October 2020
- Vigilance Awareness Week (October 27 to November 02 2020) was observed by the Volunteers through Poster campaign.
- As a part of Cancer Awareness, Malabar Cancer Center in association with the UBA and NSS Units of the College Conducted a Webinar series On 14th November 2020
- International Volunteer Day was observed in the College by organizing a Talk by Adv. Babitha – Member Kerala State Child Rights Commission – on the topic “Volunteering to Support Child Rights” on 5th December 2020.