



# ANNUAL REPORT

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## 2023-24



IIT PALAKKAD



TECHIN  
IIT PALAKKAD

**TECHNOLOGY INNOVATION FOUNDATION  
OF IIT PALAKKAD(TECHIN)**

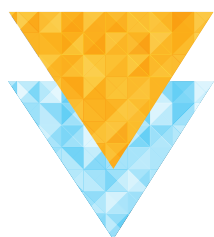
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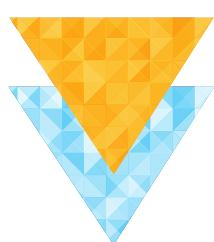






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# 1 CHAIRMAN'S MESSAGE



It is my pleasure to present the annual report for the financial year 2023-2024 of the Technology Innovation Foundation of IIT Palakkad (TECHIN).

TECHIN, a Section 8 not-for-profit company, serves as the technology business incubator of IIT Palakkad, fostering collaboration between industry and academia. It supports entrepreneurs and startups in the fields of water, sanitation, medical technology, and other emerging technology areas, providing pre-incubation, incubation, and acceleration services. 17 startups are currently in incubation across various sectors, with the number steadily growing.

The past year has been significant for TECHIN, marked by successful initiatives such as Prabhaav, Samastha 4.0, Samastha 5.0, and Arogyam 2.0 Grand Challenges. TECHIN also launched 'Samavesh,' a national incubation program for women entrepreneurs. Additionally, I am pleased to highlight the skill development and training programs organized by TECHIN, aimed at enhancing individuals' skills, knowledge, and competencies. A standout initiative was the Plumbing Training Programme, which successfully trained over 130 candidates across eight batches.

I extend my heartfelt congratulations to the entire team for their dedication and commendable efforts. I also sincerely thank the board of directors, funding partners, collaborators, well-wishers, and ecosystem enablers for their invaluable guidance and unwavering support.

Best regards,

**Prof. A. Seshadri Sekhar**

*Chairman, Technology Innovation Foundation of IIT Palakkad*

*Director, IIT Palakkad*

## 1.1 MESSAGES



I am pleased to share this annual report of the Technology Innovation Foundation of IIT Palakkad (TECHIN) for 2023-2024. This year, TECHIN has achieved significant progress through incubation initiatives in WaSH and MedTech. The launch of 'Samavesh,' a program for women entrepreneurs, highlights our commitment to innovation and inclusion.

I am proud to witness the transformative impact our initiatives have on startups and the community. TECHIN's dedicated team and collaborative atmosphere provide the perfect environment for innovation and growth. We strive to develop sustainable solutions that address real-world challenges, and it is immensely rewarding to see the efforts contribute to meaningful progress.

As we move forward, I am confident that TECHIN will continue to make a positive impact, helping to drive innovation and benefit society."

**Prof. Santhakumar Mohan**

*Dean, Industry Collaboration and Sponsored Research (ICSR), IIT Palakkad*



This past year has been a transformative period for TECHIN, filled with growth and new opportunities. The success of programs like Samastha 4.0 and Arogyam 2.0 Grand Challenges has not only showcased the innovative spirit at IIT Palakkad but also strengthened our commitment to supporting impactful startups.

TECHIN has provided the perfect environment to nurture early-stage startups, offering unparalleled access to facilities, funding, mentorship, and networking opportunities. I encourage everyone to join us in our collaborative activities as we continue to build on this momentum. The progress we've made together this year gives me great confidence in the bright future ahead for TECHIN and the broader innovation ecosystem.

**Dr. Arvind Ajoy**

*Associate Dean, Industry Collaboration and Sponsored Research (ICSR)*



Being part of TECHIN at IIT Palakkad has been a game-changer for many startups. The exceptional infrastructure, resources, and support provided here have empowered these ventures to achieve milestones that once seemed out of reach. During my time as interim CEO, I witnessed firsthand the impact of TECHIN's belief in these startups, which has been crucial in driving their growth and success. All the best to the TECHIN team as you continue to support and inspire the next generation of innovators. Your dedication is truly making a difference.

**Dr. Vivek Chaturvedi**

*Associate Professor, IIT Palakkad*



TECHIN, the incubator arm of IIT Palakkad, has truly been a guiding light for many startups on their entrepreneurial journey. The dedicated team and the collaborative atmosphere here have been instrumental in helping startups overcome challenges and achieve new milestones. During my time as interim COO, I had the privilege of witnessing the incredible impact this inspiring ecosystem has on fostering innovation and growth.

I am proud to be associated with TECHIN and extend my best wishes to the entire team as they continue to support and guide the next wave of entrepreneurs.

**Dr. Anoop Akkoorath Mana**

*Assistant Professor, IIT Palakkad*



The key to achieving global sanitation lies in harnessing the power of technology, technology that effectively addresses the needs of communities in real and meaningful ways. I am delighted to witness the remarkable progress made by the startup incubated through TECHIN, which is already making a tangible impact on society. Their innovative solutions are addressing crucial sanitation challenges and are a testament to the transformative potential of focused technological advancements.

TECHIN's dedication to nurturing and supporting groundbreaking projects has paved the way for significant contributions to the enhancement of sanitation. It is inspiring to see the works which is making a real difference in the lives of those who need it most.

**Dr. Praveena Gangadharan**

*Project Director, Global Sanitation Centre of Excellence (GSCoE), IIT Palakkad*



It's truly inspiring to see TECHIN's commitment to incubating technologies that have the potential to bring about meaningful societal change. By focusing on innovations that directly address pressing social issues, TECHIN is not only fostering technological advancement but also driving positive transformation in our communities.

The collaboration between industry and academia is essential for tackling the complex challenges we face in our rapidly evolving world. TECHIN exemplifies how such partnerships can lead to impactful solutions and contribute significantly to solving real-world problems. All the best to the TECHIN team as they continue to advance these crucial initiatives.

**Dr. Sunitha K Nayar**

*Joint Project Director, Global Sanitation Centre of Excellence (GSCoE), IIT Palakkad*



TECHIN's dedication to providing valuable support to startups, all while ensuring a sustainable business model, is truly commendable. The balance they maintain between nurturing innovation and driving growth reflects their deep commitment to long-term success.

I have full confidence in their vision and am excited to be part of this journey. I look forward to seeing how TECHIN will continue to shape the future of innovation and contribute to the success of emerging ventures.

**Dr. Devasena M**

*Chief Technology Officer, Global Sanitation Centre of Excellence (GSCoE), IIT Palakkad*



## 1.2 ACKNOWLEDGEMENT



At this moment, I want to extend my heartfelt gratitude to the esteemed members of our Board of Directors, the diligent Financial & Audit Committee, the visionary Technical & Executive Committee, and our esteemed Advisors & Mentors. Your guidance, wisdom, and unwavering support have been instrumental in shaping our journey and driving our success.

I would like to express our deepest appreciation to Ms. Anuradha Shankar, our former CEO, whose steadfast support & leadership since our inception laid a strong foundation for our organization.

Our sincere thanks are also extended to Dr. Vivek Chathurvedi, our former interim CEO, for his exceptional leadership & dedication. His expertise & unwavering commitment have been crucial in navigating our challenges and advancing our mission.

Furthermore, we wish to acknowledge Dr. Anoop Akkoorath Mana, our former interim COO, for his invaluable contributions to TECHIN's success. His dedication & expertise have been instrumental in driving our operational excellence & fostering our organizational growth.

At TECHIN, our incubation program is designed to empower innovators & startups, providing them with the resources, mentorship, and network needed to transform groundbreaking ideas into impactful solutions. By fostering a collaborative ecosystem, we aim to catalyze innovation across various sectors, driving sustainable growth & societal advancement.

We also wish to express our gratitude to our funding partners HDFC Parivarthan, Bill & Melinda Gates Foundation, West Pharmaceutical Inc and Petronet LNG Limited for their generous support & collaboration. Their contributions have been crucial in enabling us to pursue our mission and achieve impactful outcomes.

Additionally, I extend my heartfelt thanks to our entire team and the incubatees under TECHIN. Your hard work, innovation, & commitment are the driving forces behind our achievements. Together, we have created a thriving environment that fosters growth and excellence.

Thank you all for your continued support & commitment to our shared vision. Your contributions are deeply valued and have been integral to our success

**Mr. Midhu Unnithan**

*Chief Operating Officer, Technology Innovation Foundation of IIT Palakkad*



# OUR COLLABORATORS




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## FUNDING PARTNERS

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BILL & MELINDA  
GATES foundation



# 2 BACKGROUND



## 2.1 IIT PALAKKAD

Established in 2015, the Indian Institute of Technology, Palakkad is dedicated to creating an environment that enables students and faculty to engage in the pursuit of knowledge, to dream, think, and innovate thereby becoming change agents for a better world. The Institute recognises collective growth, in collaboration with industry and other academic institutions, as the need of the time and emphasizes blue-sky research and directed research as two essential pillars of technology development. The Institute embraces a vision to be a leader in cross-disciplinary inquiries, and to contribute to the potential that India's demographic dividend represents for the country and the world, which is embodied in the motto of the institute "Nurturing minds for a better world" Located in the historic and vibrant region of Palakkad, known as the granary of Kerala, our institute is perfectly situated as the gateway to the state from the North, Palakkad Gap in the Western Ghats. Surrounded by rich traditions, significant historical events, and its sylvan surroundings, especially the Silent Valley rain forests and ubiquitous palmyra trees, Palakkad provides an inspiring backdrop for academic pursuits.

The Sahyadri campus sprawls across a 504-acre and consists of a series of facilities that facilitate academic, administration, and research activities. The academic block named 'Saraswati' in the Sahyadri campus features a classroom Complex with a capacity of around 2000 students, a Central Fabrication Facility, a Heavy Machinery Lab, a Research Complex, and a large Infrastructure Testing lab. It is also equipped with advanced studio classrooms that facilitate multi-camera recording, lightboard recording, chroma-keying, live-streaming, and web-based video conferencing and editing; and a digitalized Central Library with about 7000 printed in addition to a large number of digital resources, are already accessible to the teaching and student fraternity.

It also encompasses an administrative block, the APJ Abdul Kalam Block, the C06 Classroom cum Laboratory Complex, and the Sangraha block featuring four precast buildings. Additionally, the campus houses cutting-edge laboratories and centres like Smart AgriTech centre for Advanced Research and Development, GSCOE (Global Sanitation Centre of Excellence) lab, Environmental Engineering lab, and CIF (Central Instrumentation Facility) lab.





## 2.2 TECHIN

Technology Innovation Foundation of IIT Palakkad (TECHIN), a not-for-profit company, is a technology business incubator that supports early-stage startups and entrepreneurs to grow into successful businesses. It provides funds, mentorship, and access to R & D facilities at IIT Palakkad to the teams on-boarded for incubation and acceleration.

TECHIN hosts three technology verticals:

- ▶ SaniTech on water, sanitation and hygiene
- ▶ MedTech on biomedical technology
- ▶ Technology Innovation Center (TIC) for all other domains

TECHIN conducts pitch events, workshops, and hackathons throughout the year to incubate promising ideas and innovative solutions that not only hold potential for commercial success but can also positively impact society at large.

### SERVICES & SUPPORT



**Incubation & Acceleration**



**Marketing, IP, Legal Support**



**Office Space & Infrastructure**



**Funding & Financial Support**



**R&D, Labs & Testing Support**



**Training and Workshops**



**Technical & Business Mentoring**



**Go To Market and Outreach**



**Field Trials and Evaluation Support**



### 2.2.1 SaniTech

SaniTech incubates technological solutions and businesses in the field of sanitation. In addition to incubation, this center supports scaling of existing sanitation technologies, skill development, and training for maintenance and service personnel. SaniTech works with the funding support from Bill and Melinda Gates Foundation (BMGF), HDFC Bank Parivartan, collaborators include International Association of Plumbing and Mechanical Officials (IAPMO), Toilet Board Coalition (TBC), various NGOs such as Keystone Foundation, S3IDF, and DICCI works to successfully deploy incubation, technological development, and field testing of WaSH technologies.



### 2.2.2 MedTech

MedTech supports startups specializing in medical devices, telemedicine, drug delivery systems, injectables, and diagnostics, providing resources for development and scaling. In collaboration with West Pharmaceutical Packaging India Pvt. Ltd., the center offers access to advanced facilities, industry expertise, and mentorship, ensuring startups receive the necessary guidance to bring innovative healthcare solutions to market.



### 2.2.3 Technology Innovation Center (TIC)

Technology Innovation Center (TIC) provides both business and technology mentoring support for both early and advanced-stage startups in all areas other than sanitation and medical technologies.

## 2.3 Global Sanitation Center of Excellence (GSCOE)



Global Sanitation Centre of Excellence (GSCOE) is a centre of excellence of IIT Palakkad, initiated and facilitated through the Office of Principal Scientific Advisor, Government of India. The center's ongoing projects include developing new sanitation technologies and solutions for non-sewered sanitation systems, which are crucial in rural and underserved urban areas. The GSCOE is also involved in national and global networks on non-sewered sanitation systems which focus on national and international cooperation to improve sanitation across regions.

GSCOE's lab infrastructure includes state of the art facilities for testing septage, sludge, water and wastewater. The Global Sanitation Centre of Excellence is committed to providing rigorous technical evaluation and effective field testing of sanitation technologies. This is achieved through the Engineering Field Testing Platform built within the campus, which allows for sophisticated testing and validation of various sanitation solutions. By offering this platform, GSCOE ensures that sanitation technologies are not only innovative but also practical and effective when implemented in real-world settings.

GSCOE supports the development, dissemination and advocacy for adoption and implementation of non-sewered sanitation (NSS) policies in India. Robust outreach programs with key collaborators facilitating direct community engagements is also one of the key functions of GSCOE. GSCOE along with TECHIN is involved in commercialization of NSS technologies.

# 3 GOVERNANCE

## Board of Directors



**Prof. A. Seshadri Sekhar**  
Director, IIT Palakkad  
Chairman, TECHIN



**Prof. Sunil Kumar P B**  
Professor, IIT Madras



**Dr. Rajan Srikanth**  
Founder, SmartKapital



**Prof. Santhakumar Mohan**  
Dean, ICSR, IIT Palakkad



**Prof. Prabhu Rajagopal**  
Professor, IIT Madras



**Dr. Ganesh Natarajan**  
Associate Professor,  
IIT Palakkad



**Dr. Arvind Ajoy**  
Associate Dean, ICSR,  
IIT Palakkad



## Financial and Audit Committee



**Dr. Ganesh Natarajan**  
Associate Professor,  
IIT Palakkad



**Prof. Santhakumar Mohan**  
Dean, ICSR, IIT Palakkad



**Dr. Rajan Srikanth**  
Founder, SmartKapital

## Technical Executive Committee



**Prof. Santhakumar Mohan**  
Dean, ICSR, IIT Palakkad



**Prof. Prabhu Rajagopal**  
Professor, IIT Madras



**Dr. Vivek Chaturvedi**  
Associate Professor,  
IIT Palakkad



**Dr. Anoop Akkoorath Mana**  
Asst. Professor, IIT Palakkad



**Dr. Revathy Padmanabhan**  
Associate Professor,  
IIT Palakkad



**Dr. Dinesh Jagadeesan**  
Associate Professor,  
IIT Palakkad



**Dr. Sunitha K Nayar**  
Asst. Professor(Visiting),  
IIT Palakkad



**Dr. Pramod Kuntikana**  
Asst. Professor,  
IIT Palakkad



**Dr. M Sabarimalai Manikandan**  
Associate Professor,  
IIT Palakkad



**Dr. Praveena Gangadharan**  
Asst. Professor,  
IIT Palakkad



**Dr. Sandeep Chandran**  
Asst. Professor, IIT Palakkad

## Team TECHIN



**Mr. Midhu Unnithan**  
Chief Operating Officer,  
TECHIN, IIT Palakkad



**Dr. Sarosh Kothandath**  
Project Manager



**Ms. Ramya R**  
Senior Executive  
(Accounts)



**Mr. Ranjith E R**  
Executive (Accounts)



**Ms. Jiji M G**  
Program Coordinator



**Mr. Deepak U P**  
Training Officer



**Mr. Jude Arul Kumar**  
Training Officer



**Mr. Kiran Kumar M**  
Training Officer



**Ms. Smruthi S**  
Training Officer



**Mr. Ajish S**  
Admin Officer



**Mr. Praveen Kumar A**  
Program Coordinator



**Mr. Binoy N**  
Attender

## Team GSCOE



**Dr. Praveena Gangadharan**  
Project Director



**Dr. Sunitha K Nayar**  
Joint Project Director



**Dr. Devasena M**  
Chief Technical Officer



**Dr. Praveen G**  
Project Manager



**Dr. Guruprasad Talekar**  
Project Scientist



**Dr. Sudeeptha Girijan**  
Project Scientist



**Mr. Praveen Rosario A**  
Senior Lab Executive



**Mr. Pragadeesh Subramani**  
Senior Lab Executive



**Ms. Sarani Sasidaran**  
Senior Lab Executive



**Mr. NaveenRaj P**  
Executive Accounts



**Ms. Ramya Viswash**  
Lab Executive

# 4

## STARTUPS INCUBATED AT TECHIN

### 4.1 Nirgandh Private Limited

Nirgandh, onboarded for incubation at TECHIN via Samastha 1.0, is a sanitation-focused organization incorporated in September 2019. It aims to provide affordable, high-quality, environmentally friendly, and water-conserving sanitation solutions, positively impacting the health of current and future generations. Working on its technology for on-site sanitation solutions, it breaks the long chain of containment, transportation, treatment, and disposal by treating human waste on-site. Founded by Madhu S Thakar and Ashish Mehrotra,

with Saumya Chandra. Nirgandh's vision is to provide environmentally friendly, water-saving, and affordable WaSH systems for healthy sanitation practices that save lives and increase economic activity potential. Since its inception, Nirgandh has installed over 200 toilets comprising domestic toilets, public and community toilets as well as toilet facilities for commercial and office establishments across India, collaborating with various government bodies, NGOs, and corporates.



*Affordable biogas toilets and super structures to help stop open defecation, conserve water resources and reduce water contamination*

*Field trials of Nirgandh toilets at IIT Palakkad and various places in Kotagiri.*



## 4.2 Ecoenso Technologies Private Limited

Ecoenso Technologies Private Limited, onboarded for incubation at TECHIN via Samastha 1.0, is a dynamic company founded in October 2020 in Northwest Delhi. Led by directors Aman Virmani and Shreshth Virmani, it is driven by a vision of ensuring universal access to hygiene products.

With a focus on innovation and sustainability, the company empowers individuals and businesses to lead environmentally conscious lives. Its core values prioritize innovation and sustainability, along with customer centricity, ensuring the quality and performance of their products.



Rashid Kidwai Sanitation Innovation Award – 2022

*Range of sustainable hygiene solutions designed for greener and more efficient maintenance of sanitation facilities*

## 4.3 Avinya Infinity Solutions Private Limited

Avinya Infinity Solutions was an early-stage student innovative idea pitched as “Pragathi Tech” during the Covackathon organized by TECHIN in August 2021. Founded by Mr. Arijit Majumdar and Mr. Brajogopal Chakraborty, the company aims to revolutionize sanitation through technology, focusing on IoT-based smart robotic solutions. With

support from TECHIN and the Global Sanitation Center of Excellence (GSCOE) at IIT Palakkad, it has received recognition such as the National Startup Award from Startup India. Avinya Infinity Solutions remains dedicated to creating a healthier and safer world through innovation in sanitation technology.



*Advanced technologies for automatic, effortless and effective sanitation and disinfection*



## 4.4 Ensect Farm Private Limited

Ensect Farm Private Limited leads the way in organic waste management and finding protein sources using innovative insect-based solutions. Founded in 2023, the company, led by Mr. Anup TV, aims to convert organic waste into valuable resources. Using Black Soldier Fly, they offer a unique bio-conversion process, swiftly turning waste into compost, protein, and chitin. With a diverse team

and esteemed advisors, Ensect Farm addresses environmental and health risks associated with untreated waste, creating biproducts that cater to sectors like animal feed and agriculture. Operating on both business-to-business (B2B) and business-to-consumer (B2C) models, they expect to generate revenue through product sales and waste management services.



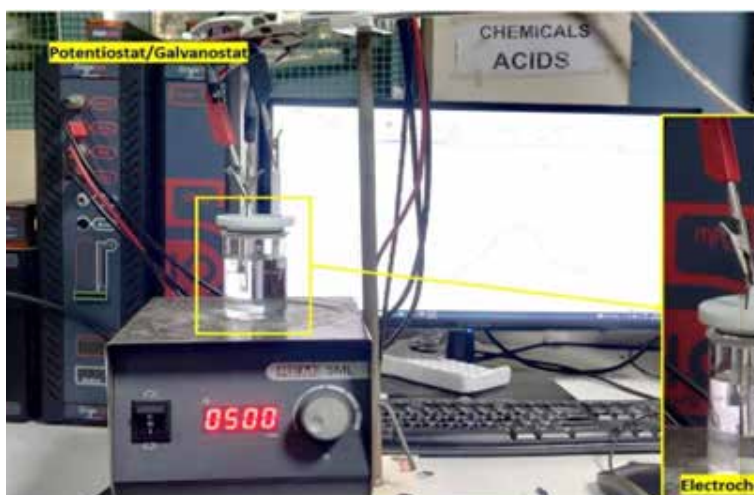
Winner of Waste to Wealth Innovation Challenge 2024

*Entomocomposting using *Hermetia illucens* - mediated bioremediation, especially for faecal sludge and septage management.*

## 4.5 Munnarivan Technologies Private Limited

Munnarivan Technologies Private Limited onboarded for incubation at TECHIN via Samastha 2.0, pioneers advanced digital twin technologies to revolutionize health and performance monitoring for humans. Its mission is to provide industries and individuals with real-time, precise information for proactive decision-making, enhancing health. The team was led by directors Mr. Deep Singh,

Mr. Pirabu Kannan, and Dr. Boominatha Sellarajan, alongside technical advisors Prof. N. Arunachalam and Prof. M. S. Ramachandra Rao from IIT Madras, specializes in portable IoT-enabled devices for heavy metal detection. Recognizing the health risks associated with heavy metals such as lead, mercury, arsenic, and cadmium, they aim to mitigate these risks through their technology.



*IoT devices on sanitary wares that can monitor, sense and diagnose early-stage renal, inflammatory and urinal diseases*

Experimentation of novel electrode for the sensing of heavy metals.

## 4.6 SR Assistive Technologies Private Limited

SR Assistive Technologies Pvt. Ltd., onboarded for incubation through Samastha 2.0, is led by Dr. V. Sampath Kumar, who is dedicated to pioneering innovative solutions for persons with mobility challenges, particularly in toilet usage. Inspired by personal experiences, his journey began after witnessing his father's

struggles. Driven by compassion, he developed a groundbreaking solution that revolutionizes Indian squatting practices, enhancing comfort and accessibility. Committed to dignity and independence, the company's user-friendly products cater to diverse mobility needs, reflecting a strong focus on innovation and inclusivity.



*Safe and comfortable toilet enablers and support accessories for the elderly and disabled*

## 4.7 T-CON UNIFLOW Private Limited

T-CON UNIFLOW, onboarded for incubation at TECHIN through Samastha 5.0, is led by Mr. Guruvayurappan. The company introduces the Ferrule with Flow Control Non-Return Valve (FFCV), which addresses the critical issue of water management through pressure control and by preventing the contamination of water supplies

from wastewater or stormwater backflow. Aiming to revolutionize the sanitation industry with innovative solutions, T-CON UNIFLOW is dedicated to technological advancement and committed to tackling pressing societal challenges, striving to make a lasting impact on water quality, equitable distribution and water conservation.



*A novel ferrule device with a flow control valve. It acts as a non-return valve and a flow control valve simultaneously*

## 4.8 Nimble Vision Private Limited

Nimble Vision Pvt. Ltd., onboarded for incubation at TECHIN through Samastha 5.0, leads in tech innovation for water and sewage management, leveraging Internet of Things (IoT) and Artificial Intelligence (AI) solutions. Focused on addressing

water scarcity and sanitation challenges, Nimble Vision simplifies life while promoting environmental sustainability. Its platform, "Ni-," provides real-time analytics on water levels, consumption, leakage, and quality, enhancing system efficiency and



*Nimble Vision integrates IoT platforms to manholes that provide easy options for quick responsive sewage treatment infrastructure*

optimizing energy usage. Operating in both B2B and B2C markets, including Smart Cities initiatives, its flexible business model ensures scalability. Led by Ms. Vaishali Chinnayya and Mr. Chinnayya Math, the company is recognized worldwide for its

patented technology in smart water management, bringing innovation and impact. Founded in 2017 and commercialized in 2019, Nimble Vision is poised for further expansion, driving positive change in water management.

## 4.9 Haricken Process Intensification Private Limited

Haricken Process Intensification Private Limited, onboarded for incubation at TECHIN through Samastha 5.0, emerged from the vibrant innovation ecosystem of NIT Warangal with a mission to tackle global water challenges. Guided by Prof. Shirish H. Sonawane and led by Mr. Yogesh Patil and Mr. Dilip Kumar, HPIPL embarked on a journey to revolutionize water treatment methodologies, prioritizing efficiency and environmental responsibility. Specializing in advanced technologies such as

hydrodynamic cavitation, ceramic membranes, and advanced oxidation methods, they offer superior treatment efficiency for various contaminants. Their strategic partnerships drive continuous technological advancement and provide platforms to showcase innovations. HPIPL is committed to driving positive change through innovation, sustainability, and excellence in water treatment.



*Integrated ceramic membrane-based treatment technique and hydrodynamic cavitation technique for then treatment of greywater*

## 4.10 Agrifactory India Private Limited

Agrifactory India Private Limited, onboarded for incubation at TECHIN through Samastha 3.0, is a pioneering company specializing in innovative waste management and sanitation solutions. Agrifactory India focuses on sustainable crop cultivation, market gardening, and horticulture. Led by Mr. Ravi Senji the company brings extensive experience in waste management and technology. Their flagship product, "FeNix," redefines sanitation and waste treatment by offering an end-to-end, odorless,

non-sewered processing solution. Committed to sustainability and innovation, the company aims to expand its product line, scale up production, conduct research on waste reduction technologies, and forge new partnerships for a cleaner and more sustainable future.





*Odorless flush-less retrofittable toilets with minimal water that ensures quality sanitation*

## 4.11 SRMT

SRMT, onboarded for incubation at TECHIN through Samastha 3.0 and founded by Mr. Kishore Krishna Murthy, reimagines wastewater treatment through a biological lens, diverging from conventional automation-centric approaches. Leveraging innovative biofilm technologies alongside established methods like the Activated Sludge Process, SRMT optimizes treatment plant performance by promoting active biomass and minimizing

sludge production. The company's fluidized biofilm technology introduces robust and cost-effective treatment strategies that meet stringent regulatory standards. With its patented Single Reservoir Multi-Process Technology (SRMT), the company excels in treating wastewater. Emphasizing simplicity, reliability, and cost-effectiveness, SRMT facilitates a seamless transition to biofilm-based systems, empowering operators and ensuring quality treatment outcomes.



*Single reservoir multiprocess technology for water and waste water treatment*

## 4.12 Happy 60 Plus Private Limited

Happy60plus, onboarded for incubation at TECHIN through Arogyam 1.0, is a Social Impact venture spearheaded by Ms. Sunita Dube. Sunita's upbringing in a traditional joint family fostered a deep connection with the elderly, inspiring her to continue supporting them throughout her life. Her personal experiences, juggling work, family, and caregiving responsibilities, highlighted the need for

verified, trusted, and trained services for the elderly. Thus, Happy60plus was founded with a mission to Enable & Empower the Elderly for independent living and a happy and healthy aging experience. Serving as an extended family and support system, Happy60plus caters to the needs of the elderly and their caregivers, ensuring a nurturing environment for aging individuals and their families.





*Providing holistic services and solutions for independent living, social engagement, emotional happiness*

*Recognized Among Top 10 Startups at Wharton India Startup Challenge and Featured in CII Compendium for Women-Led Startups*

## 4.13 Amrit MediTech Private Limited

AMRIT MediTech Pvt. Ltd. (AMPL), onboarded for incubation at TECHIN through Arogyam 2.0 and founded by Dr. Amrit Dixit and Mrs. Fatima Electricwala, is dedicated to developing cutting-edge, affordable, and non-invasive medical devices. The company is committed to creating impactful medical solutions for the betterment of society. In surgical procedures such as free flap reconstruction, whether in head and neck surgery for tumors, burns, plastic surgery, or breast cancer, monitoring

tissue health and perfusion is essential. Their vision is to enhance global quality of life through trust and empathy, embedding compassion into healthcare solutions. By focusing on creating advanced and accessible solutions, they empower patients, doctors, and healthcare professionals worldwide. AMPL is dedicated to driving impactful change in healthcare, making it accessible, affordable, and compassionate for all.



*Amrit Meditech Pvt Ltd-develops innovative solutions through dynamic InfraRed Thermography for diagnostics*

## 4.14 Innovati Med Solutions Private Limited

Innovati Med Solutions Private Limited was onboarded for incubation at TECHIN through Arogyam 2.0. Established in 2022, the company is an innovative entity driven by a strong mission led by two medical doctors and a nanotechnologist to provide medical solutions for the general public. The company is engaged in various projects,

including the fabrication of a prototype device for the detection of Tacrolimus, the Wonder Box (a neurological rehabilitation tool using games), Melodious (an app designed to assist aphasia patients), and the development of a wearable patch for glucose monitoring



*Develops flexible and wearable patch (band-aid sensor) for sensitive and selective detection of biomarkers*

## 4.15 Bionic Hope Private Limited

Bionic Hope Pvt Ltd (Robo Bionics) has developed Grippy India's Own NABL Lab Safety Tested and Certified, 3D printed Prosthetic hand with a sense of touch and multi-grip control. Designed, engineered, and proudly made in India, Grippy is a lightweight and affordable, battery-powered

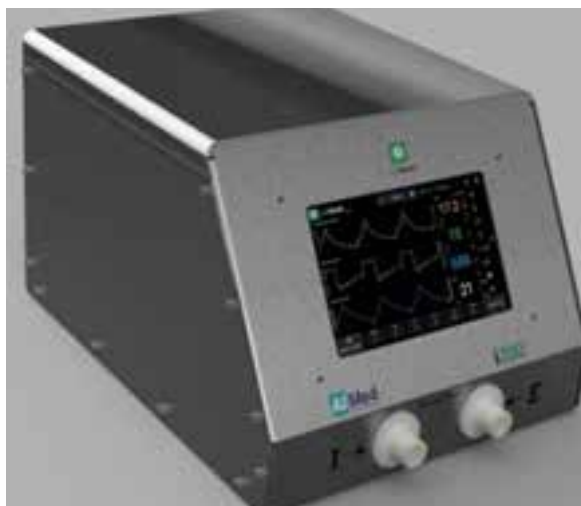
prosthesis now available in the Indian market for people with below elbow amputation age 15 years and above. Robo Bionics is a Recognized Startup by the Startup India Initiative by the DPIIT, Govt of India. National Startup Award Winner of 2021



*Bionic Hope Private Limited  
– providing robotic and bionic solutions to improve the quality of human lives*

## 4.16 AI Med Solutions Private Limited

AI Med Solutions Pvt Ltd was onboarded for incubation at TECHIN through Arogyam 1.0. They developed their innovative solution, CareHQ, which includes software (apps and dashboard), monitoring devices, and a local CarePod for data collection and aggregation, in addition to a collection of healthcare



service integrations. CareHQ provides central, real-time continuous monitoring of patients at home. It is targeted at the elderly who want to age in place, chronically and critically ill patients, post-hospitalization patients, and their loved ones who want to stay informed at all times.

*Developing innovative, all-encompassing, patient-focused solutions to close the care gap in home healthcare.*

## 4.17 Revin Techno Solutions Private Limited

Revin Techno Solutions Pvt Ltd is an Agritech startup founded by Mr. Sreehari. V, Dr. Satyajit Das, and Dr. Sreenath Vijayakumar, dedicated to democratizing data-driven agriculture using IoT and Big Data. The company designs integrated full-stack solutions for alternative farming, including sensing, automation, and traceability solutions for smart farming. Revin Techno Solutions ensures reliable



and sustainable food production at scale. Emerging from IIT Palakkad, the startup's mission focuses on building engineering solutions that enhance human lives. The goal is to cultivate the right crops with best practices, leveraging relevant technologies at the appropriate locations and scale to feed the world sustainably.

*Develop data-driven IoT solutions for alternate farming, including sensing, automation and traceability.*

# 5 ANNUAL EVENTS

## 5.1 Prabhaav Innovation Grand Challenge

The "Prabhaav | प्रभाव Innovation Grand Challenge" organized by TECHIN and GSCOE, aimed to tackle sanitation and hygiene issues in India by supporting entrepreneurs with innovative solutions in the domain of Water, Sanitation, and Hygiene (WaSH). The event was conducted from January to May 2023 across four South Indian cities to encourage collaboration and networking among stakeholders. Prabhaav sought to drive

technological advancements, business innovation, and societal impact in sanitation and hygiene, fostering integration and collective action for sustainable solutions. Through this initiative, GSCOE and TECHIN hoped to harness participants' creativity and entrepreneurial spirit to bring about meaningful change and improve the lives of people in India.

### 5.1.1 Technical Talk & Interactive Workshop

The Technical Talk and Interactive workshop held on May 13<sup>th</sup>, 2023, at the Dreamotel Conference Hall, provided valuable insights and engagement opportunities on health, hygiene, sanitation, and entrepreneurship. Dr. Nimish Shah, MD of IAPMO-India, delivered a thought-provoking technical talk on "Innovation in Health, Hygiene & Sanitation," likely highlighting cutting-edge advancements and the importance of technology in addressing sanitation challenges. Following this, Mr. Muralidharan Sridharan, Chairman of Mobility

AfterMarket, led an interactive business workshop titled "Startup Journey - Potential & Pitfalls," offering practical insights into entrepreneurship. Attendees engaged directly with Mr. Sridharan, fostering meaningful exchanges and clarifying paths forward in their entrepreneurial endeavors. Overall, the event served as a platform for learning, networking, and collaboration, driving progress and empowering individuals to make a positive impact in their fields.

### 5.1.2 Multi-city events and grand finale

The Valedictory Function on May 13<sup>th</sup>, 2023, at the Dreamotel Conference Hall in Kanjikode, Palakkad, marked the conclusion of the Prabhaav Innovation Grand Challenge and the Plumbing Apprentice Programme (PAP), celebrating the participants' achievements. Dr. S. Chithra, IAS, District Collector of Palakkad, graced the event as the Chief Guest, while Prof. Jagadeesh Bayry from IIT Palakkad delivered the Welcome Address, emphasizing the

significance of the initiatives. Prof. Santhakumar Mohan, Dean of ICSR at IIT Palakkad, highlighted collaborative efforts. Dr. Chithra S., IAS, awarded certificates and plumbing tool kits to PAP participants, recognizing their commitment to skill development. She also announced the results of the Prabhaav Innovation Grand Challenge.



*Dr. S. Chithra, IAS congratulating the winners*



*Prabhaav Events*





## 5.2 Arogyam 2.0

Arogyam 2.0 is an online pitching event conducted by TECHIN under its MedTech vertical, in collaboration with West Pharmaceuticals. This event provides a platform for innovators to showcase ideas aimed at revolutionizing medical technology. The incubation program offers resources, mentorship, funding support, and state of the art facilities to develop innovations. By fostering innovation and entrepreneurship, Arogyam 2.0 contributes to

healthcare advancement, driving positive change in healthcare delivery and patient outcomes through emerging technologies. The mentoring and pitching sessions, mentoring 1 and Pitch 1, Mentoring 2, and the final Pitch, were conducted on 4<sup>th</sup> May 2023, 9<sup>th</sup> May 2023, 15<sup>th</sup> May 2023, and 18<sup>th</sup> May 2023, respectively. Four teams were shortlisted for incubation and pre-incubation.



*Arogyam 2.0 mentoring 1 & Pitch 1, Mentoring 2, and final Pitch sessions were conducted on 4<sup>th</sup> May 2023, 9<sup>th</sup> May 2023, 15<sup>th</sup> May 2023 & 18<sup>th</sup> May 2023 respectively. Four teams were shortlisted for incubation and pre-incubation.*

## 5.3 Samastha 4.0

Samastha 4.0, the fourth leg of the online pitching event in WaSH sector. Organized by the Technology Innovation Foundation (TECHIN) of IIT Palakkad and the Global Sanitation Center of Excellence (GSCOE) of IIT Palakkad, aims to identify innovative startups in the water, sanitation, and hygiene domains. Several rounds pitching sessions were conducted on July 10<sup>th</sup>, July 13<sup>th</sup>, and July 20<sup>th</sup>. The finale of Samastha 4.0 was held on July 24<sup>th</sup>, 2023.

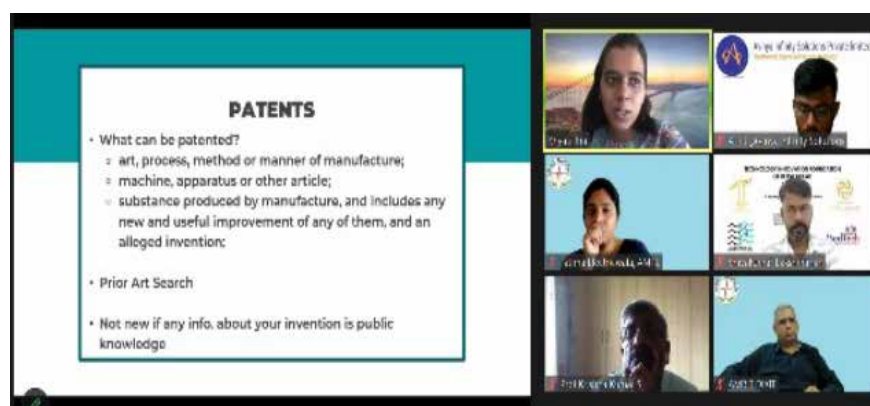


## 5.4 Entrepreneurship Development Programme (EDP) —

The Entrepreneurship Development Programme (EDP) conducted by TECHIN was an initiative focused on nurturing and supporting startups in the incubation phase. The 12-week online interactive workshop, which began on June 27<sup>th</sup>, 2023, aimed to facilitate the transformation of prototypes into viable businesses with significant social and economic impact.

Mr. S. Muralidharan, Chairman of Mobility Aftermarket (P) Ltd, served as the Cohort Chair for the sessions, bringing valuable expertise and experience to the program. In his role,

Mr. Muralidharan guided and mentored the participating entrepreneurs throughout the workshop. His leadership and insights were instrumental in helping startups navigate the challenges of entrepreneurship and maximize their potential for success. Additionally, the program featured masterclass sessions from eminent speakers, including Ms. Khyati Jha on legal aspects, Mr. Viju Parameshwar on financial management, and Ms. Raka Krishna on human resources, providing comprehensive support to the participants.

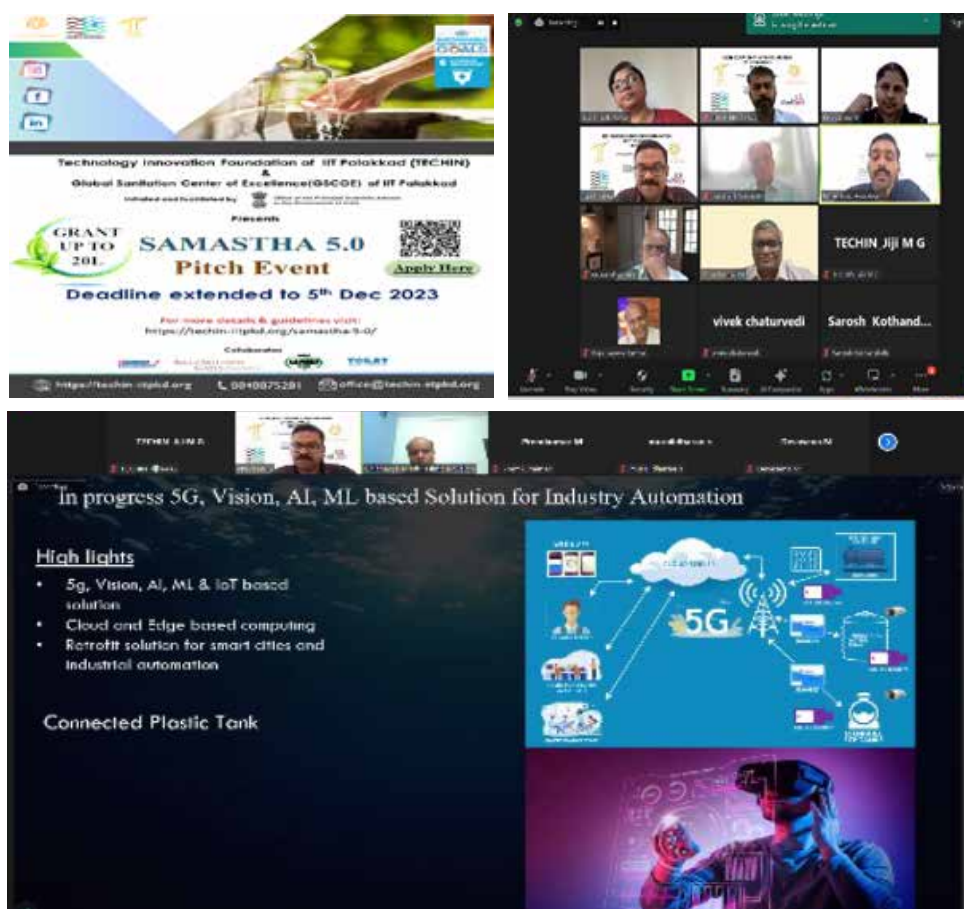


*Glimpse of the EDP*

## 5.5 Samastha 5.0

Samastha 5.0, the fifth cohort of the online WaSH pitch event organized by Technology Innovation Foundation of IIT Palakkad (TECHIN) and the Global Sanitation Center of Excellence (GSCoE) of IIT Palakkad, aims to identify and showcase technological solutions in sanitation at Technology Readiness Level (TRL)-5 and above. This initiative encourages innovation crucial for addressing sanitation challenges and enhancing public health and environmental sustainability. The potential grant award of up to Rs 20 lakhs for winning teams provides additional motivation for participants to develop high-quality projects, facilitating the development and deployment of innovative sanitation technologies to benefit communities in need. The Samastha 5.0 pitch

event finale was conducted on December 20, 2023. The event witnessed enthusiastic presentations from innovators at the Technology Readiness Level (TRL)-5 and above in the WaSH domain. The distinguished panel members including Dr Rajarshi Banerjee (Faculty, Administrative Staff College of India), Dr. Vivek Chaturvedi (IIT Palakkad), Dr. Anoop Akkoorath Mana (IIT Palakkad), Dr. Praveena Gangadharan (Project Director, GSCOE), Dr. Sunitha K Nayar (Joint Project Director, GSCOE), Dr. Devasena M (CTO, GSCOE), Mr. S Muralidharan (Chairman, Mobility AfterMarket), Raja Rajeev Kumar (CEO, LaxmiRamaVarma, Capital Advisors) and Mr Premkumar Manavazhi (Leadership Thinker & Mentor) appraised and appreciated the presentations pitched in the finale.



*Glimpse of the final pitch event*

## 5.6 Webinar Series

The webinar series on ISO 30500 and associated standards for non-sewered sanitation (NSS) demonstrated the commitment of the Center for Water and Sanitation (CWAS) at CRDF, CEPT University, in partnership with the Global Sanitation Centre of Excellence (GSCOE) at TECHIN, IIT Palakkad, and the Bill & Melinda Gates Foundation (BMGF), to advancing sanitation standards. The final session, titled 'ISO 31800:2020 Faecal Sludge Treatment Units,' emphasized energy-independent, prefabricated, community-scale units focused on resource recovery, safety, and performance. The webinar provided essential insights for ensuring

the safety and efficiency of faecal sludge treatment while promoting sustainable, energy-independent sanitation solutions, particularly for areas without centralized sewer systems. This collaboration highlighted the role of multi-stakeholder partnerships in driving sanitation improvements and advocating for the adoption of ISO standards. The series served as a key platform for knowledge exchange, capacity building, and collaboration, emphasizing the importance of standardization and innovation in tackling global sanitation challenges and enhancing community health.



*Glimpse of the webinar series*

## 5.7 Samavesh - Women Entrepreneurship Program (WEP -1.0)

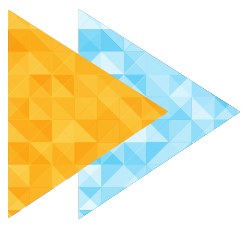
Technology Innovation Foundation of IIT Palakkad (TECHIN) and Global Sanitation Centre of Excellence (GSCOE) at IIT Palakkad launched an online pitch event for women entrepreneurs with innovative ideas in the fields of water, sanitation,

and hygiene (WaSH). The event aimed to foster women-supportive ecosystems, providing new opportunities for women to come forward and provide solutions to sanitation issues as well as address gender centric sanitation preferences.





# 6



# TRAINING AND SKILL DEVELOPMENT

## 6.1 Plumbing Apprentice Programme (PAP)

The Plumbing Apprentice Programme (PAP) represents a unique endeavor aimed at elevating plumbing standards and fostering skill development in the Palakkad region and beyond. This comprehensive upskilling initiative, jointly recognized and certified by the Centre for Continuing Education (CCE) and the Technology Innovation Foundation (TECHIN) of IIT Palakkad, in collaboration with the International Association of Plumbing and Mechanical Officials (IAMPO), India, has made significant strides in empowering individuals with the expertise and practical knowledge required in the plumbing industry.

### Program Overview

The PAP is meticulously crafted to equip participants with the necessary knowledge, comprehension, and hands-on experience in accurate and advanced plumbing practices. Throughout the program, participants undergo training on the installation, repair, and maintenance of various piping systems, plumbing fixtures, and associated equipment utilized in water distribution and wastewater disposal. Furthermore, participants gain a deep understanding of the fundamental principles underlying typical plumbing systems, enabling them to apply their knowledge effectively in real-world scenarios. At the culmination of the program, a total of 131 candidates were certified, showcasing the program's effectiveness in producing skilled plumbing professionals.

### Outreach training

The seventh and eighth batches of the Plumbing Apprentice Programme (PAP), sponsored by Petronet LNG and held at Attappadi and Mannarkkad, respectively, concluded on January 9, 2024, and March 11, 2024. Prof. A. Seshadri Sekhar, Director of IIT Palakkad, awarded the certificates & plumbing toolkits to the participants from Attappadi in the presence of Mr. K. Madhavan Unni (Advisor, Administration at IIT Palakkad), Dr. Anoop Akkoorath Mana (Asst. Professor, IIT Palakkad), and Mr. Ashish Gupta (Petronet LNG) during the valedictory function.

Mr. K. Madhavan Unni, Advisor, Administration at IIT Palakkad, awarded the certificates & plumbing toolkits to the participants from Mannarkkad in the presence of Dr. Anoop Akkoorath Mana (Asst. Professor, IIT Palakkad), Mr. Ashish Gupta (Petronet LNG), and Dr. Sunitha K. Nayar (Joint Project Director, GSCOE, IIT Palakkad). This collaboration highlights the synergy between industry & educational institutions in promoting skill development.





*PAP Scholars adorned with accolades and equipped with toolkits*



*PAP scholars engaged in the training session*





Portraits of the seventh batch, Attappadi



# ROUND TABLE MEETING ON BIOSOLIDS

## “A Discussion on Formulation of Guidelines for Treatment and Reuse”

The joint initiative between the Global Sanitation Center of Excellence (GSCOE) and the Technology Innovation Foundation (TECHIN) of IIT Palakkad culminated in a significant roundtable meeting on November 8<sup>th</sup>, 2023, at the India Habitat Center in New Delhi. Focused on "Biosolids: A discussion on the formulation of guidelines for treatment and reuse," the event aimed to encourage in-depth discussions and collaborative brainstorming among key stakeholders in the biosolids domain at the national level. The Center of Excellence at IIT Palakkad played a pivotal role in orchestrating this event, bringing together various expert groups to consolidate efforts towards addressing biosolids management and facilitating the development of national-level standards for the application and reuse of biosolids. The highlight of the event was the launch of the Lab Alliance kick-off meeting, led by the Centre for Science and Environment and the Bill and

Melinda Gates Foundation, symbolizing a concerted effort to pool resources and expertise from diverse stakeholders to tackle biosolids management challenges. Distinguished personalities, including Prof. A. Seshadri Sekhar (Director, IIT Palakkad), Dr. Manoranjan Mohanty (Adviser/Scientist 'G' - Office of the Principal Scientific Advisor to the Government of India), Dr. V. K. Chaurasia (CPHEEO, Ministry of Housing and Urban Affairs), Dr. Sapna Poti (Strategic Alliance Division, PSA's office), Dr. Sunita Narain (Director General, Centre for Science and Environment), and Dr. Roshan Shrestha (Bill and Melinda Gates Foundation), among others, graced the event, enriching discussions with their valuable deliberations and insights. Representatives from collaborating institutes and national agencies also participated, emphasizing the collaborative and inclusive approach adopted towards addressing this critical issue. Overall, the roundtable meeting served as a crucial platform for fostering collaboration, sharing knowledge, and charting a collective path towards sustainable biosolids management in India.



*IIT Palakkad, GSCOE, and TECHIN Delegates Convene at Round Table Meeting on Biosolids in New Delhi*





# 8

## VISITS AND NETWORKING

### 8.1 Visit to WASH Institute, Dindigul Campus

On June 6, 2023, following the initial planning and preparations, a visit was conducted to the WASH Institute's Dindigul campus to facilitate skill development and technology implementation. The visit followed up on previous discussions and networking efforts, including arranging subsequent

meetings and fostering collaboration between relevant stakeholders. The objective was to further strengthen partnerships and advance initiatives focused on skill development and technology advancement within the WaSH sector.



*TECHIN Team at WASH Institute*

### 8.2 Visit to AIT Global Water & Sanitation Center, Bangkok

On July 7, 2023, a delegation from the Global Sanitation Centre of Excellence (GSCOE) at TECHIN, along with members from the Indian Institute of Technology Palakkad (IIT Palakkad), visited the AIT Global Water & Sanitation Center

in Bangkok to foster collaboration in water and sanitation initiatives. The visit included tours of facilities and laboratories, discussions on potential collaboration areas such as testing protocols for wastewater treatment, and the sharing of expertise



to enhance water and sanitation system efficiency and sustainability. The visit facilitated knowledge exchange and laid the groundwork for future

collaborative efforts to address global challenges in water management and sanitation.



*TECHIN Team at AIT Water & Sanitation Center, Bangkok*

### 8.3 Angel Investors at TECHIN

At TECHIN, the startups were presented with a remarkable opportunity to showcase their projects to a distinguished panel of Angel investors. Specifically, two of TECHIN's incubated startups, Nirgandh and Happy60plus, seized this opportunity

and delivered their pitches to the Angel investors on the 12<sup>th</sup> of May 2023, within the premises of TECHIN's office. The outcome of these pitches was notably positive, indicating favourable reception and potential support from the investors.



### 8.4 HDFC Parivartan Team at TECHIN

On December 15, 2023, the HDFC Parivartan Team visited both TECHIN and the Global Sanitation Centre of Excellence (GSCOE) at the Indian Institute of Technology Palakkad (IIT Palakkad) to review the GSCOE Project. Meetings and consultations were held with key stakeholders to assess the project's progress, achievements, challenges, and future directions. The review process involved presentations, data analysis, and reports from

the GSCOE team, with feedback and suggestions shared to enhance project effectiveness and sustainability. The visit facilitated dialogue and collaboration between HDFC Parivartan and GSCOE, potentially leading to further support or partnerships to advance project objectives. Overall, the visit provided a valuable opportunity for mutual exchange, evaluation, and strategizing to ensure project success and positive social impact.



*Team HDFC at IIT Palakkad*

## 8.5 Delegates at TECHIN

Dr. Sonia Grego and her team from the Duke University Center for WaSH-AID visited the Global Sanitation Centre of Excellence (GSCOE) at TECHIN on June 30, 2023, aiming to explore potential collaborations. Discussions between the Duke University team and TECHIN representatives during this visit focused on possible areas of collaboration, sharing insights, expertise, and resources related to water, sanitation, and hygiene initiatives. The meeting served as an opportunity for dialogue and cooperation toward advancing mutual goals in sustainable development.

Additionally, Mr. Jay Bhagwan, Executive Manager overseeing Water Use and Waste Management at the South African Water Research Commission, visited the GSCOE and TECHIN at the Indian Institute of Technology, Palakkad, from February 6<sup>th</sup> to 10<sup>th</sup>, 2024. His visit sparked discussions on sanitation topics such as faecal sludge management, non-sewered sanitation systems, and innovative technologies. These conversations,

which also explored next-generation sanitation and the emerging sanitation economy, catalyzed innovative ideas and enriched understanding in water management and sanitation practices. Anticipated future collaborations with Mr. Jay and the Commission are expected to drive positive change.

Furthermore, during the last week of September, TECHIN and GSCOE hosted a significant event, welcoming distinguished WaSH experts and funding partners including Mr. Depinder Kapur, Dr. Srikanth Mutnuri, Dr. Roshan Raj Shrestha, Dr. Carl Hensman, Mr. Venkata Krishnan, and Mr. Jay Bhagwan. Their insights and support emphasized advancements in water, sanitation, and hygiene research and implementation. Collaboration and support from these experts and partners are pivotal in driving impactful outcomes, with anticipation for further collaborations to continue fostering positive change in water, sanitation, and hygiene.



*Mr. Jay Bhagwan with Prof. A. Seshadri Sekhar (Director- IIT Palakkad),  
Dr. Sunitha K Nayar (Joint Project Director- GSCOE), Dr. Devasena M (CTO – GSCOE)*



*Dr. Sonia Grego and her team from the Duke University Center for WaSH-AID visited GSCOE of  
TECHIN on June 30, 2023*



*Distinguished WaSH experts at TECHIN and GSCOE*





# ENGAGEMENTS & OUTREACH

## 9.1 Industry Academia-Conclave at IAC 5.0 IIT Palakkad

The TECHIN stall at the fifth edition of the Industry Academia-Conclave (IAC 5.0), held at the Indian Institute of Technology, Palakkad, on Engineer's Day, September 15, 2023, played a pivotal role in fostering collaboration and innovation. This event brought together academia and industry representatives, offering opportunities for networking, knowledge exchange, and collaboration. Attendees engaged with cutting-edge technologies and projects showcased by TECHIN, spanning engineering,

science, and technology fields. TECHIN aimed to establish partnerships and collaborations between academia and industry stakeholders, facilitating discussions on joint research projects, technology transfer, and industry-academia partnerships. By participating in IAC 5.0, TECHIN demonstrated its commitment to bridging the gap between academia and industry, driving technological innovation, and addressing real-world challenges through collaborative efforts.



*TECHIN's Dynamic Showcase at Industry-Academia Conclave 5.0 (IAC 5.0), IIT Palakkad*

## 9.2 PAN IIT's Global Technology Summit

IIT Palakkad made a significant impact at PAN IIT's Global Technology Summit (PI-WOT 2023) in Bangalore on December 8 & 9, 2023. The delegation, including Prof. A. Seshadri Sekhar, Dr. Arvind Ajoy, Dr. Dinesh Setti, & Dr. Vivek Chaturvedi, showcased the institute's initiatives in fostering industry connections & holistic student development. The presence of Shri A. S. Kiran Kumar, former Chairman

of ISRO, added prestige to the event. Prof. A. Seshadri Sekhar highlighted IIT Palakkad's efforts in innovation for societal impact, aligning with the theme of a panel discussion. Through active involvement, IIT Palakkad expanded its networks & collaborations in the global technology landscape, showcasing its achievements & contributions.





*Dr. Arvind Ajoy and Dr. Vivek Chaturvedi Representing IIT Palakkad and TECHIN at Pan IIT's Global Technology Summit*

### 9.3 Kerala Startup Missions Founders meet 15<sup>th</sup> Edition at IIT Palakkad

The 15<sup>th</sup> edition of the Founders Meet, organized by Kerala Startup Mission in partnership with TECHIN of IIT Palakkad and the IIT Palakkad Technology

IHub Foundation (IPTIF), held on January 12<sup>th</sup>, 2024, at Palakkad IIT, was a resounding success, fostering collaboration and innovation within the



startup ecosystem. The event brought together prominent figures from the startup community, including distinguished speakers like Prof. A. Seshadri Sekhar, Anoop Ambika, Ravindran P.M., Rahul P Balachandran, Rajesh Malamal, and Anoop Balakrishnan, who shared invaluable insights. Through interactive sessions, panel discussions, and keynote addresses, attendees gained insights into entrepreneurship, innovation, and business

growth, while also networking and exploring collaboration opportunities. The event facilitated meaningful connections and collaborations between startups, investors, industry experts, and academia, nurturing an ecosystem of support and collaboration. Overall, the Founders Meet played a pivotal role in driving innovation, entrepreneurship, and economic growth in the region, empowering the startup ecosystem in Kerala for future success.

## 9.4 TECHIN's Pavilion Shines at “PETRICHOR 24” IIT Palakkad

TECHIN of IIT Palakkad demonstrated its commitment to innovation and skill development at two key events: the open house at IIT Palakkad's Nila Campus and the techno arts fest Petrichor24 on January 27<sup>th</sup> and 28<sup>th</sup>, 2024. The pavilion attracted a diverse audience eager to explore the latest technological advancements and witness innovative projects, including those from resident incubatee Avinya Infinity Solutions Pvt. Ltd. The

pavilion served as a focal point for discussions, interactions, and networking opportunities with industry professionals, academics, students, and technology enthusiasts. Overall, TECHIN's participation highlighted its dedication to fostering innovation, skill development, and industry collaboration, while inspiring a diverse audience with the transformative potential of technology.



*TECHIN's Pavilion at PETRICHOR*

## 9.5 Disha Higher Studies Expo at Thrithala

On January 17<sup>th</sup>, 2024, TECHIN actively participated and engaged with the audience through its exhibition stall at the 'Disha' Higher Studies Exposition in Thrithala. During the exposition,

TECHIN facilitated publicity and outreach initiatives to maximize engagement and awareness about its offerings and initiatives.



*Interactive TECHIN Stall Engaging with DISHA Visitors*

## 9.6 SATVA 24 Symposium at IIT Palakkad

SATVA 24 - Symposium on Advanced Technologies and Visionary Approaches for Sustainability, hosted by the Environmental Sciences and Sustainable Engineering Centre (ESSENCE) at IIT Palakkad, with sponsorship from TECHIN, took place on February 2<sup>nd</sup> and 3<sup>rd</sup>, 2024. The event aimed to address contemporary environmental challenges through innovative solutions and strategies. Notably, startups incubated by TECHIN showcased

cutting-edge innovations related to sustainability and environmental conservation. Attendees had the opportunity to engage with these startups, fostering collaborations and partnerships. SATVA 24 facilitated discussions and networking among researchers, industry professionals, policymakers, and stakeholders interested in sustainability and environmental sciences.





ഐക്യ ഫാലക്കാട് അപ്പ്രന്റിസ് പ്രോഗ്രാം മൂന്നാമത് ഇറക്കിവിട്ട സർട്ടിഫിക്കറ്റ് വിതരണചടങ്ങിൽ നിന്ന്

## ഐ.ഐ.ടി.യിൽ പ്ലംബിങ് കോഴ്സ്

പാലക്കാട് ഐ.ഐ.ടി.യുടെ (ഇന്ത്യൻ ഇൻസ്റ്റിറ്റ്യൂട്ട് ഓഫ് ടെക്നോളജി) ടെക്നോളജി ഇന്നൊവേഷൻ ഫൗണ്ടേഷൻ നൈപുണി വികസനപരിപാടിയിലെ പ്ലംബിങ് അപ്രന്റിസ് പദ്ധതിയുടെ ആറാമത് ഇരുന്നൂറിലധികം പേർക്ക് അപേക്ഷ ക്ഷണിച്ചു.

ഐ.ഐ.ടി. തുടർവിദ്യാഭ്യാസകേന്ദ്രം, ഇന്റർനാഷണൽ അസോസിയേഷൻ ഓഫ് പ്ലംബിങ്ങ് ആൻഡ് ടെക്നിക്കൽ ഫെഡറേഷൻ-ഇന്ത്യ എന്നീ സ്ഥാപനങ്ങളുടെ സർട്ടിഫിക്കറ്റ് വിതരണചടങ്ങിൽ നിന്ന്

പങ്കെടുത്ത സർട്ടിഫിക്കറ്റുകൾ ലഭിച്ചു.

80 ശതമാനം പ്രാക്ടിക്കലും 20 ശതമാനം തിയറിയും ഉൾപ്പെടുന്ന പരിശീലനമാണ് ഒരുക്കിയിട്ടുള്ളത്. പ്ലംബിങ് മേഖലയിൽ പ്രവൃത്തി പരിചയമുള്ളവർക്ക് മുൻഗണനയുണ്ട്. എട്ടാംക്ലാസ് പാസായ 18 വയസ്സ് മുതലുള്ളവർക്ക് കോഴ്സിൽ ചേരാം.

വിവരങ്ങൾക്ക്: 8848875281 | [techin-iitpkd.org/plumbing-apprentice-programme/](http://techin-iitpkd.org/plumbing-apprentice-programme/)



അപ്പ്രന്റിസിലെ ആഭിവാസി വിദ്യാർത്ഥികൾക്കായി ഐക്യ നഗരത്തിലെ തൊഴിൽ പരിശീലനത്തിന്റെ സർട്ടിഫിക്കറ്റ് വിതരണം, ഡോക്ടർ പ്രഫ.എ.ശങ്കരാജി ശേഷം ഉദ്ഘാടനം ചെയ്യുന്നു.

## ആഭിവാസി വിദ്യാർത്ഥികൾക്ക് തൊഴിൽ പരിശീലനം രണ്ടാംഘട്ടം പൂർത്തിയായി

പാലക്കാട് • അപ്പ്രന്റിസിലെ ആഭിവാസി വിദ്യാർത്ഥികൾക്കായി ഐക്യ ഫാലക്കാട് ജില്ലയിലെ തൊഴിൽ പരിശീലനത്തിന്റെ സർട്ടിഫിക്കറ്റ് വിതരണം, ഡോക്ടർ പ്രഫ.എ.ശങ്കരാജി ശേഷം ഉദ്ഘാടനം ചെയ്യുന്നു. വർദ്ധിച്ച സാമ്പത്തിക കാരണങ്ങൾ വിദ്യാർത്ഥികളെ പൊതുസാഹിത്യത്തിലേക്ക് അകറ്റിയിട്ടുള്ളതുകൊണ്ട് അഭാവത്തിൽ നൽകുകയുമാണ് പദ്ധതിയുടെ ലക്ഷ്യമെന്ന് അക്വഫം പാഞ്ചേ. ഐക്യയിലെ ടെക്നോളജി ഇന്നൊവേഷൻ ഫൗണ്ടേഷൻ (ടെക്നോ), ഇന്റർനാഷണൽ അസോസിയേഷൻ ഓഫ് പ്ലംബിങ്ങ് ആൻഡ് ടെക്നിക്കൽ ഫെഡറേഷൻ, പെട്രോനെറ്റ് എൻ്റർപ്രൈസ് എന്നീ സ്ഥാപനങ്ങളുടെ സഹകരണത്തോടെയാണ് പദ്ധതി. ആദ്യഘട്ടത്തിൽ 21 പേർ പരിശീലനം പൂർത്തിയാക്കിയിരുന്നു. പെട്രോനെറ്റ് എൻ്റർപ്രൈസ് ഫീഡ് മാനേജർ ആഗ്നി ഹൃദയൻ, കെ.രാധാകൃഷ്ണൻ, സി.ജെ.ജി. എന്നിവർ പ്രസംഗിച്ചു.

പാലക്കാട് • ഐക്യയിലെ ടെക്നോളജി ഇന്നൊവേഷൻ ഫൗണ്ടേഷൻ നൈപുണി വികസന പരിപാടിയിലെ പ്ലംബിങ് അപ്രന്റിസ് പ്രോഗ്രാമിലെത്തുന്ന സംസ്ഥാന കോഴ്സിന്റേക്ക് അപേക്ഷ ക്ഷണിച്ചു. ഐക്യ തുടർ വിദ്യാഭ്യാസ കേന്ദ്രം, ഇന്റർനാഷണൽ അസോസിയേഷൻ ഓഫ് പ്ലംബിങ്ങ് ആൻഡ് ടെക്നിക്കൽ ഫെഡറേഷൻ-ഇന്ത്യ എന്നിവയുടെ സഹകരണത്തോടെയുള്ള പദ്ധതിയിൻ്റെ പേര് 80 ക്ലാസ്സ് പാസായ 18 വയസ്സിനു മുകളിലുള്ളവർക്ക് അപേക്ഷിക്കാം. പ്ലംബിങ് മേഖലയിൽ പ്രവൃത്തി പരിചയമുള്ളവർക്ക് മുൻഗണന. കൂടുതൽ വിവരങ്ങൾക്ക് <http://techin-iitpkd.org/plumbing-apprentice-programme/>, ഫോൺ: 8848875281

## അറിയിപ്പ്

### ഐക്യയിൽ പ്ലംബിങ് കോഴ്സ്

പാലക്കാട് • ഐക്യയിലെ ടെക്നോളജി ഇന്നൊവേഷൻ ഫൗണ്ടേഷൻ നൈപുണി വികസന പരിപാടിയിലെ പ്ലംബിങ് അപ്രന്റിസ് പ്രോഗ്രാമിലെത്തുന്ന സംസ്ഥാന കോഴ്സിന്റേക്ക് അപേക്ഷ ക്ഷണിച്ചു. ഐക്യ തുടർ വിദ്യാഭ്യാസ കേന്ദ്രം, ഇന്റർനാഷണൽ അസോസിയേഷൻ ഓഫ് പ്ലംബിങ്ങ് ആൻഡ് ടെക്നിക്കൽ ഫെഡറേഷൻ-ഇന്ത്യ എന്നിവയുടെ സഹകരണത്തോടെയുള്ള പദ്ധതിയിൻ്റെ പേര് 80 ക്ലാസ്സ് പാസായ 18 വയസ്സിനു മുകളിലുള്ളവർക്ക് അപേക്ഷിക്കാം. പ്ലംബിങ് മേഖലയിൽ പ്രവൃത്തി പരിചയമുള്ളവർക്ക് മുൻഗണന. കൂടുതൽ വിവരങ്ങൾക്ക് <http://techin-iitpkd.org/plumbing-apprentice-programme/>, ഫോൺ: 8848875281





TECHIN Stall Highlights Its Incubated Innovators at SATVA 24, IIT Palakkad

## Second batch of Attappady youths trained in plumbing by IIT Palakkad

21-day training to 22 youngsters from Pudur, Agali and Sholayar regions to mould them into professional plumbers

The Hindu Bureau  
PALAKKAD

**T**wentytwo youngsters from the tribal community in Attappady successfully completed the Plumbing Apprentice Programme (PAP) offered by the Indian Institute of Technology (IIT) Palakkad. They were the second batch of youngsters from Attappady to undergo the training. The 21-day hands-on training was offered in collaboration with the Technology Innovation Foundation (TECHIN) of IIT Palakkad, the International Association of Plumbing and Mechanical Officials (IAPMO), the Bill and Melinda Gates Foundation (BMGF), and Petronet LNG.

At a valedictory function held at Agali on Thursday, IIT Palakkad Director A. Seshadri Sekhar gave away course certificates

and plumbing tool kits to the participants.

**Need for skilling:** Prof. Sekhar emphasised the responsibility of higher education institutes in spending time and resources for training and upskilling underprivileged communities in the neighbourhood, and ensuring their livelihood opportunities and self-maintenance.

He said focused vocational upskilling, like PAP training, would boost the nation's journey in its "Amrit Kaal" with a vision of becoming a developed nation by 2047.

Aashish Gupta, Petronet LNG chief manager for CSR, K. Madhavan Unni, IIT Palakkad administration advisor, Jambhal C, special extension officer of the Integrated Tribal Development Project, Attappady, and Anoop Akkavarath Mana, chief operating officer of TECHIN, spoke.



**Brighter prospects:** Indian Institute of Technology (IIT) Palakkad Director A. Seshadri Sekhar giving away the course certificate to a youngster from Attappady who attended a three-week plumbing apprentice programme offered by the institute.

Tribal youngsters from the Pudur, Agali and Sholayar regions of Attappady took part in the second edition of the PAP. IIT officials said that the participants were given comprehensive training as professional plumbers. "They are now capable of contributing to the focused mission programmes on water and

sanitation as envisioned by the State and Central governments, such as Jal Jeevan Mission, Amrit 2.0, and Beachch Bharath Abhiyan," said Prof. Sekhar.

**Tool kit given**

Each participant received a do-it-yourself (DIY) plumbing tool kit with essential tools to support their plumbing journey.

This curated training programme, budgeted at ₹2.7 lakh a batch, was provided free of cost to the most deserving candidates of Attappady through ongoing collaborations of IIT Palakkad with the Bill and Melinda Gates Foundation and a CSR initiative of Petronet LNG Limited.

In the first batch, 20 youngsters from the Mole Amurayal hamlet in Attappady were given training through a comprehensive one-month residential programme.

The programme included modules on basic carpentry, plumbing, welding techniques, computer networking, and IT proficiency. Participants honed their skills in email communication and typing, and gained confidence in operating computers.

Another batch is gearing up for training at Mannarkad soon.

## Samawesh - Women Entrepreneurship Program



Technology Innovation Foundation of IIT Palakkad (TECHIN) & Global Sanitation Center of Excellence (GSCOE), IIT Palakkad invites applications from women entrepreneurs on innovative Ideas in the WaSH domain (Water, Sanitation & Hygiene)

Submit your applications using the QRcode



Apply and get a chance to win Grant up to Rs. 20 Lakhs

**APPLY NOW**

**GUIDELINES**

APPLY BEFORE: 08TH APRIL 2024, 5PM  
for more details visit: <https://techin-iitpkd.org/>

Collaboration



<https://techin-iitpkd.org> 8846875281 office@techin-iitpkd.org

Technology Innovation Foundation of IIT Palakkad (TECHIN) and Global Sanitation Center of Excellence (GSCOE) of IIT Palakkad have launched an online pitch event for women entrepreneurs. Applications are invited from women entrepreneurs with innovative ideas in the fields of water, sanitation, and hygiene (WASH). This event aims to foster women-supportive ecosystems, providing new opportunities for women in income-generating roles and community leadership positions through innovative WASH technological solutions. The pitch event seeks innovative WASH solutions that are at Technology Readiness Level (TRL)-5 and above. Selected women entrepreneurs will have the opportunity to receive a grant of up to 20 lakh rupees



# GALLERY















## **Technology Innovation Foundation of IIT Palakkad(TECHIN)**

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