NITI Aayog | ATAL INNOVATION MISSION

Top Innovations of ATL Marathon 2021-22

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MESSAGE FROM **MISSION DIRECTOR**

Dr. Chintan Vaishnav

Mission Director, Atal Innovation Mission,

NITI Aayog

The future of India rests in the hands of its young innovators—visionaries who are already pushing boundaries and reimagining solutions to modern challenges. Atal Innovation Mission (AIM), NITI Aayog, is committed to nurturing this talent through Atal Tinkering Labs (ATLs). These labs have become dynamic environments where students are encouraged to think boldly, experiment, and prototype their ideas. They foster a culture of curiosity, creativity, and collaboration that is reshaping the educational landscape and driving a powerful shift toward innovation across Indian schools.

The ATL Marathon 2021-22 captured the spirit of this transformation. With the theme "Azaadi ka Amrit Mahotsav," student teams from diverse regions, including some of the most resource-limited areas, came together to tackle real-world problems. The solutions they developed ranged from technology-driven innovations in healthcare to sustainability initiatives. The diversity and ingenuity that these young problem-solvers displayed reflect their boundless potential and drive for change. It is truly inspiring to witness how these students, no matter their circumstances, are setting new benchmarks for innovation in education.

Each project showcased in this Coffee Table Book represents the creativity and determination of young minds eager to make a difference. These efforts are a product of the tireless support from their ATL In-Charges, dedicated mentors, and the vast network of stakeholders who believe in the power of youth-led innovation. Together, they have created working models that not only solve pressing issues but also promise long-term impact. The ATL Marathon is not merely an event—it is a catalyst that is preparing students to become problem-solvers of tomorrow and leaders in innovation.

As we acknowledge the accomplishments of these exceptional young innovators, we look forward to the future where their ideas continue to evolve and influence the broader national goals of technological advancement, sustainable growth, and inclusive development. AIM remains committed to providing the tools and opportunities for these bright minds to shape a future that is both prosperous and progressive.

Preface

With the vision of igniting young minds and fostering a culture of creativity and entrepreneurship, the Atal Innovation Mission launched Atal Tinkering Labs across India. These labs were designed to empower students with the tools and opportunities they need to excel in a world driven by innovation and technology. By engaging in hands-on learning and practical experimentation, students are not just learning STEM concepts but are also solving some of the most pressing challenges that India faces today. Through innovation, they are contributing to the growth and development of their communities.

Today, 10,000 Atal Tinkering Labs have been established, impacting more than 1.1 crore students nationwide. These labs have become hubs of invention and collaboration, enabling students to think critically and apply their knowledge to real-world problems. This Coffee Table Book is a celebration of the incredible projects that have emerged from the ATL Marathon 2021-22, showcasing the best ideas nurtured by both students and their dedicated educators. The journey for these young innovators continues as they move forward into the Student Innovator Program (SIP), where industry mentors guide them to refine their ideas and take the most promising innovations into the Student Entrepreneurship Program.

None of this would have been possible without the unwavering support of parents, teachers, and mentors, whose encouragement and guidance have played a pivotal role in helping these students succeed. Your dedication has truly been the foundation upon which these innovations stand.

I would like to express my deep gratitude to the Vice-Chairman of NITI Aayog, Shri Suman Bery, CEO Shri BVR Subrahmanyam, and Dr. Chintan Vaishnav, Mission Director of Atal Innovation Mission, for their exceptional leadership and commitment to transforming ATL into a national movement. I also want to thank the members of the Mission High-Level Committee (MHLC) for their invaluable guidance and continuous support. Finally, I extend my heartfelt thanks to my team—Shubham Gupta, Prateek Deshmukh, Ridhi Jain, and Suman Pandit—whose hard work and creativity made this book a reality.

Deepali Upadhay

Program Director
Atal Tinkering Labs

Table Of Content

Health & Nutrition

Innovate solutions specifically solving problems faced by patients suffering from the most common diseases of India. You can choose a disease from this list or pick another disease to create a solution - Diabetes, Anaemia, Tuberculosis, Malaria, Typhoid or others.

ATL UID
1c9d10699

Name Of The School
Police DAV Public School, PAP Campus, Jalandhar Cantt. (Punjab)

Name Of The Team
Manas

Team Members
Abhimanyu Rathour, Kavya

ATL In-Charge
Sanjeev Mahajan

Innovation Title
Blood Depression Test- Early Detection for Better Cure

District
JALANDHAR

State
PUNJAB

Recent reports by the World Health Organisation (WHO) showed that globally, approximately 300 million people of the world population suffer from depression, while another 264 million of the global population and counting, grapple with anxiety disorders. The Covid-19 pandemic increased the issue even more, drawing significant attention to mental health problems.

To combat this, a dynamic duo, Abhimanyu and Kavya, recognized the pressing need to address the escalating rates of depression. Their answer to this silent killer came in the form of a "Blood Depression Test", which fosters early detection of the mental illness. Seeking guidance, they approached their school's ATL In-charge, Mr. Sanjeev Mahajan, who provided them invaluable assistance in navigating the available resources of the lab and converting their idea into reality.

Upon making a wise use of the resources provided by the school's ATL, Abhimanyu and Kavya decided to participate in the ATL Marathon. Their innovation, the Blood Depression Test emerged as their flagship project. This test, designed for early detection, could measure the levels of good and bad hormones in a human body through a simple colour-based antibody process.

Abhimanyu and Kavya envisioned their solution to have widespread applicability, spanning from everyday households to specialised environments such as pathology labs, psychology labs, and psychiatrists' offices. Their innovation was intentionally made to be easily implemented and accessible across these diverse settings. The resources offered by Atal Tinkering Labs, coupled with the invaluable guidance and support provided by their ATL In-charge, Mr. Sanjeev Mahajan, were pivotal in transforming their ideas into tangible solutions that hold promise in addressing mental health challenges.

ATL UID
1417218

Name of The School
Darbari Lal Dav Model School

Name of The Team
Wonder Girls

Team Members
Sipul Pandey, Simranjeet Kaur

ATL In-Charge
Charu Dhodi

Innovation Title
Your Well-Being

District
North-West Delhi

State
Delhi

Two bright tinkerers, Sipul and Simranjeet from Darbari Lal DAV Model School, with the help of Atal Tinkering Laboratory at their school, developed an innovative mobile application called “Your Well-being.” This application offers various features such as identifying early symptoms of illnesses, managing medication schedules, and offering guidance on accessing medical assistance.

The creation of this innovation was necessary, especially in times when a large number of people suffer from some or other chronic diseases. The team under the guidance of their ATL In-charge Ms. Charu Dhodi identified the problems people generally feel, most common of which were late symptom detection and poor storage of medical reports. To curb this issue, they adopted innovative features like “Save My Report”, where users can securely upload and store their medical reports facilitating accurate disease diagnosis. One of the Key highlights of this innovation is their emphasis on Data security and privacy.

Both Sipul and Simranjeet efficiently divided tasks and contributed to the creation of their application. Simranjeet, served as the presentation maker, researcher, and brought invaluable expertise in data analysis and user experience design. Alongside her, Sipul, served as the co-presentation maker and prototyper, focused on the accessibility aspect of the application.

This application stands as a testament to how young innovative brains, equipped with sufficient technology and knowledge and guided by supportive mentors throughout the journey from ideation to realisation, can effectively tackle real-world challenges.

ATL UID
74553878

Name of The School
Bal Bharati Public School Pitampura

Name of The Team
Tech Stars

Team Members
Aarth Singal, Sukhdev Thukral, Jayesh Dabas

ATL In-Charge
Mrs. Alka Verma

Innovation Title
Medhelp

District
North-West Delhi

State
Delhi

“Innovation in healthcare knows no bounds, lighting the path to accessibility and wellness for all.” With the same aim in mind, Team TechStars, comprising three brilliant minds, namely Aarth, Sukhdev, and Jayesh, developed a unique yet effective innovation in the field of Healthcare. Their innovation, aptly named “MedHelp,” provided a platform where people all across the country can get easy access to healthcare services.

The highlight of this innovation was their sheer dedication to making this platform accessible even to the remotest regions of India. Under the mentorship of their ATL In-charge, Mrs. Alka Verma, the team further analysed the effects undiagnosed chronic diseases can have on mankind and how, with the help of certain equipment provided by the ATL Lab, the team can transform their vision into reality.

MedHelp, as a platform, transcends language barriers by providing every feature in multiple languages, ensuring that vital health information is comprehensible to individuals irrespective of their linguistic background. One of the pivotal features of MedHelp is its capability to simplify complex medical reports, thereby enabling individuals to comprehend critical health information with ease.

The prospects of this innovation go beyond merely providing a platform. These three tinkerers further aim to spread awareness about health-related issues and potential accessible platforms by holding boot camps and collaborating with Youth-Led Organizations. Through their unwavering dedication to innovation and community empowerment, the team paves the way for a brighter, healthier future for the country.

ATL UID
26826380

Name of The School
Pushpalata Vidya Mandir

Name of The Team
Pvm Bariatric Succours

Team Members
Shivaani.s, Sripriya, Marrisha.n

ATL In-Charge
Arivanantham

Innovation Title
Obesity Recovery Assisting Capsule (Orac)

District
Tirunelveli

State
Tamil Nadu

Globally, one in eight people suffers from obesity, significantly increasing the risk of diabetes, cancer, and various heart-related issues. These alarming figures, recently confirmed by the World Health Organization (WHO) in 2024, highlight the urgent need for innovative solutions to combat the growing obesity problem and improve our daily lifestyles.

Introducing Team PVM Bariatric Succours from Pushpalata Vidya Mandir. This talented team of three innovators, Shivaani, Sripriya, and Marrisha, has developed the Obesity Recovery Assisting Capsule (ORAC) platform. ORAC offers a non-invasive, medication-free approach that focuses on lifestyle modifications and personalised dietary recommendations.

Mr. Arivanantham, the ATL In-charge, played a crucial role in guiding the team to effectively utilise equipment provided by ATL. After completing their initial prototype, the team, with their mentor's support, registered for the ATL Marathon 2021-22. This participation not only allowed them to showcase their innovation and potentially create positive societal change but also provided valuable insights into entrepreneurship and the startup culture.

In the face of the obesity epidemic, initiatives like ORAC and the dedication of teams like PVM Bariatric Succours inspire hope for a healthier future. With continued support and innovation, such innovations can empower individuals to make positive lifestyle changes and mitigate the devastating effects of obesity-related illnesses.

Atl Uid
95726119

Name of The School
Kendriya Vidyalaya Nit Agaratala

Name of The Team
Innov@Kvnita2

Team Members
Utkarsh Kumar Thakur, Prakhar Raj

ATL In-Charge
Sandip Roy

Innovation Title
Socio-Distant

District
West-Tripura

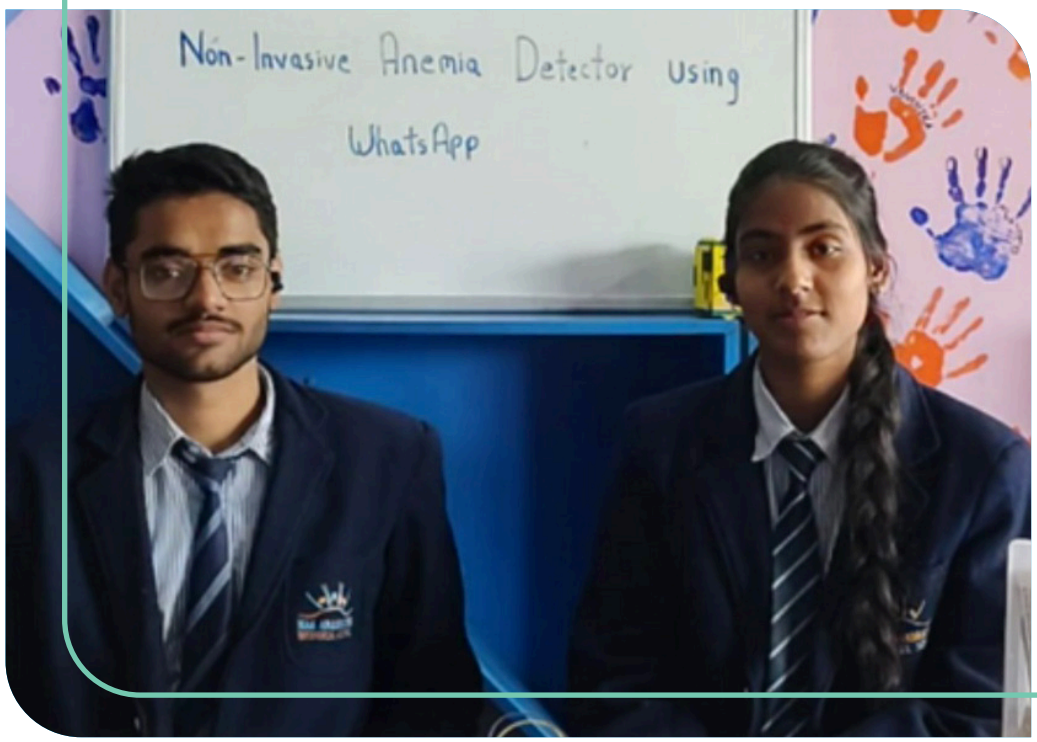
State
Tripura

"Innovation is the key to the future of India. We must encourage our young people to be creative and think outside the box." This quote by Dr. APJ Abdul Kalam truly resonates with the idea and vision of this innovation. Team INNOV@KVNITA2 from Kendriya Vidyalaya NIT Agartala comprising two genius brains developed a unique yet very useful solution to the problem of social distancing and issues around coming in direct contact with viruses and other infections.

Socio-Distant is a device that can calculate the suitable maximum number of people allowed in the room by dividing the Volume of the room by the Volume around a single person to foster a safe environment around people. The creation of Socio-Distant involved extensive research and experimentation, however, it finally resulted in positive outcomes. The team indeed worked hard, however, their mentor and ATL In-charge Mr. Sandip Roy's continuous guidance fostered an environment in which the students could critically think and effectively solve the problem.

The unique feature of this innovation is that it uses an AI Camera and sensors to detect Human Faces which leads to an accurate measure and prediction by the device. This fosters a multi-faceted area of usage for this product, from hospitals to classrooms, this device can monitor the health capacity of individuals who should be there in the room and provide necessary adjustments.

Besides this, the team's vision of easy accessibility and affordability is very appreciable. Utkarsh Kumar Thakur and Prakhar Raj, these young brains not only thought out of the box but also provided a sustainable solution.



ATL UID
52712813

Name of The School
Maa Anandmayee Memorial School

Name of The Team
Pocketlab Techies

Team Members
Sakshi Badoni, Vaibhav Raj

ATL In-Charge
Arjun Madhavankutty

Innovation Title
Pocket Lab, A Non-Invasive Anaemia Detector Using Whatsapp

District
Dehradun

State
Uttarakhand

Over half of women and children in India suffer from anaemia. Inspired by this alarming statistic and guided by their mentor Mr. Arjun Madhavan Kutty, Sakshi Badoni and Vaibhav Raj, the young minds behind PocketLab Techies, set out to make a difference.

Their concern was the lack of accessible and child-friendly solutions for early anaemia detection. Traditional methods often involve travelling to distant medical facilities and undergoing invasive blood tests, discouraging many, especially children with needle phobia. PocketLab offers a unique solution: a non-invasive anaemia detector using WhatsApp.

PocketLab tackles the challenges by leveraging existing technology. It utilises WhatsApp, the most widely used platform in India, eliminating the need for additional app downloads. Using an image of the eye captured through the phone's camera, PocketLab analyses the information and provides test results conveniently through WhatsApp chat. This innovative approach reduces friction and encourages wider adoption, especially in remote areas with limited access to conventional testing facilities.

PocketLab empowers individuals and communities in several ways. It caters to people living in remote regions with limited access to healthcare facilities. It also benefits children and individuals with needle phobia who might otherwise avoid getting tested altogether. Ultimately, PocketLab's mission aligns with the national "Anaemia-Mukt-Bharat" initiative, aiming to create an anaemia-free India by making vital health checks accessible and user-friendly for all.

ATL UID

4097562

Name of The School

Bharat Mata English Medium Higher Secondary School

Name of The Team

Big Bull

Team Members

Christy George Anthony, Chandrabhan Mahato, Karan Kerwani

ATL In-Charge

Panu Halder

Innovation Title

Mpr-Bot (Muscle Pain Reliever)

District

Bilaspur

State

Chhattisgarh

While researching societal issues, Team Big Bull from Bharat Mata English Medium Higher Secondary School, Chhattisgarh, encountered a common challenge: muscular pain and discomfort, affecting an estimated 80% of the adult population globally. Recognizing its widespread impact, the team decided to investigate potential solutions and developed an innovation namely Muscle Pain Reliever or MPR Bot.

Previously, managing muscle pain often involved traditional remedies and medications. While effective, these methods often took time to provide relief. Aiming to address this need, the MPR-Bot was created as a portable, user-friendly device offering targeted pain relief. This innovation holds potential for use in various settings, including hospitals during the COVID-19 pandemic where physical interaction may be limited, and for individuals seeking relief in the comfort of their homes. The team envisions the MPR-Bot contributing to wider access to pain management options.

The Big Bull team, comprising Christy George Anthony, Chandrabhan Mahato, and Karan Kerwani, alongside their ATL In-charge, Mrs. Panu Halder, each played crucial roles in developing the MPR-Bot. Inspired by the launch of the ATL Marathon 2021-22, Mrs. Halder encouraged their participation, providing a platform to showcase their innovation on a national scale.

Through the dedication of the team and the valuable resources provided by initiatives like the ATL Marathon and Atal Tinkering Labs, the MPR-Bot represents a potential step towards offering more autonomous and effective options for managing muscle pain.

ATL UID
85e111854

Name of The Schoo
Saraf Public School

Name of The Team
Challengers

Team Members
Tanuja Bhatt, Avantika Bisht, Princi Bisht

ATL In-Charge
Mr. Chinmay Kumar Raul

Innovation Title
Mopping Machine

District
Udham Singh Nagar

State
Uttarakhand

“Great things can be accomplished when people with diverse talents come together and work towards a common goal.” - This quote reflects the teamwork and collaboration displayed by Team Challengers who designed the Mopping Machine.

The Mopping Machine, as its name suggests, aims to simplify the cleaning process by offering a user-friendly and potentially efficient solution. It can potentially help reduce manual labour in daily routines, making cleaning tasks potentially more manageable for individuals and potentially even some businesses. Team members Tanuja, Avantika, and Princi believe the Mopping Machine could be used in corporate settings, particularly multinational companies. They envision that it could potentially contribute to streamlining cleaning processes, leading to potential cost reductions and potentially increased productivity for businesses.

Mr. Chinmay Kumar Raul, their ATL In-charge and mentor, provided invaluable guidance and support throughout the ATL Marathon. His teachings on entrepreneurship and innovation undoubtedly influenced the team’s development process. Each team member applied their unique skills to contribute to the project. Tanuja and Avantika focused on conceptualising the initial idea, while Princi’s role was crucial in managing the overall development.

Motivated by the desire to address everyday challenges and explore potential solutions, Mopping Machine by Team Challengers has been successful in tackling the issue of manual labour and its potential drawbacks. Their innovative approach holds promise for contributing to a more efficient and streamlined future

Atl Uid
1615959

Name of The School
Ucskm Public School

Name of The Team
Ucskm Stars

Team Members
Shubham Jangra, Varun Tiwari, Vishesh Kumar

ATL In-Charge
Mrs. Swati Patil

Innovation Title
Body Posture Controller

District
Alwar

State
Rajasthan

Globally, people spend an average of 6 hours and 58 minutes of screen time per day. With the ever-increasing screen time comes bad posture and increasing backbone problems. Team UCSKM Stars, comprising three brilliant minds namely Shubham, Varun, and Vishesh, recognized this pressing issue and formulated their innovation, the "Body Posture Controller," to combat the problem.

The Body Posture Controller is a system designed to provide users with real-time feedback on their posture dynamics. By utilising sensors and programming, this platform assesses one's sitting posture and provides informed adjustments to optimise their postures, thereby reducing potential back pain.

The ATL Marathon provided the team with a golden opportunity to represent this innovation on a nationwide platform. Through this competition, these young innovators not only improved their technical knowledge but also developed an entrepreneurial mindset. This mindset of solving real-world problems through innovative solutions is the need of the hour in today's world. Under the guidance of Mrs. Swati Patil, their mentor and ATL Incharge, the team went on to be selected in the Top 400 of the Marathon.

With the prevalence of remote work and virtual learning on the rise, the demand for innovative solutions to combat problems that arise with high screen time continues to increase. Hence, the team's innovative creation serves as a beacon of hope for individuals seeking to safeguard their health and well-being in an increasingly digitised world

ATL UID

19318746

Name of The School

Thanthai Hans Roever Hr Sec School Perambalur

Name of The Team

Roever Hss

Team Members

Atchaya C, Mamathi Sri K, Prejeena R

ATL In-Charge

Vijai A.m Rathinasamy

Innovation Title

Exoskeleton Chair

District

Perambalur

State

Tamil Nadu

Three young minds namely Mamathi Sri K, Atchaya C, and Preejeena R from Thanthai Hans Roever Higher Secondary School participated in the ATL Marathon with their innovation of the "Exoskeleton Chair". This innovation seeks to mitigate the adverse impacts of extended standing on individuals' well-being, especially within occupational environments.

In today's world, there are a lot of areas in which it can be efficiently and effectively used. From traffic police officers to medical professionals, from packaging industry workers to textile artisans, this solution can bring about a significant change in work environments by prioritising the health and comfort of individuals.

Under the guidance of their mentor Vijai A.M Rathinasamy, the team made sure to focus on the two most important aspects of the innovation which are Accessibility and Applicability. This innovation is cost - effective with multiple areas of use.

Their creation has the potential to make a significant positive impact, and we hope to see the Exoskeleton Chair implemented in various workplaces in the near future. As Albert Schweitzer once said, "One person can start a revolution of hope." These young minds are a testament to that, and their innovation has the potential to revolutionise the way we work.

ATL UID
Cbd03014

Name Of The School
Government Multipurpose Hr Sec School Bilaspur

Name Of The Team
Dr Kalam Science Club

Team Members
Kaushik Majumdar, Sagar Bhoi, Ku V Arishi

ATL In-Charge
Dr. Dhananjay Pandey

Innovation Title
Foot Relaxo Shoe

District
Bilaspur

State
Chhattisgarh

"When learning is purposeful, creativity blossoms." This quote by APJ Abdul Kalam teaches us the importance of creativity and an innovative mindset in the youth of the country. With the same aim, the team Dr. Kalam Science Club of GOVERNMENT MULTIPURPOSE HR SEC presented their innovation, namely "Foot Relaxo Shoe," in the ATL Marathon.

Born out of profound concern for patients suffering from neuro and spine disorders due to prevailing unhealthy lifestyles, this innovative footwear is the ideal solution to this pressing problem. The unique feature of the Foot Relaxo Shoe is its ability to stimulate blood circulation and maintain optimal oxygen levels, thereby alleviating pressure on the spine and nervous system.

Under the guidance of their mentor Dr. Dhananjay Pandey, the team Kaushik Majumdar, Sagar Bhoi and Ku V Arishi conducted surveys and experiments to test the efficiency of their innovation. Through various consultations with medical professionals, neuro and spinal doctors, medical patients, etc. The team refined their solution multiple times to address the root of the problem.

Through their creation of the "Foot Relaxo Shoe," this team not only addressed an important healthcare need but also demonstrated the potential of youth to drive positive change through creativity and dedication. As APJ Abdul Kalam wisely noted, when learning is purposeful, creativity indeed blossoms, paving the way for groundbreaking solutions that benefit society at large.

ATL UID

28429691

Name of The School

Amrita Vidyalayam Puthiyakavu

Name of The Team

Skynet

Team Members

B. Hari Vardhan, Jathin Renjith, Dhanu A Mahid

ATL In-Charge

Ajitha Abhilash

Innovation Title

Tuberculosis Environmental Factors Detector(Tb-Efd)

District

Kollam

State

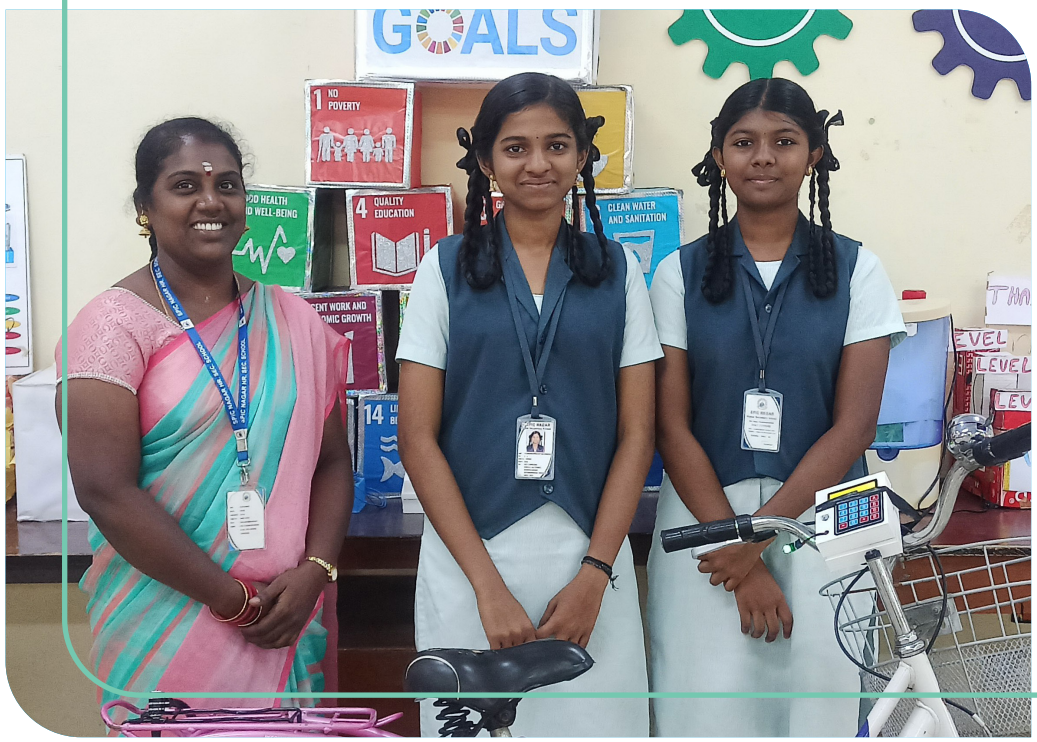
Kerala

Driven by a passion for the medical field and a shared aspiration to make a tangible difference in the healthcare sector, team Skynet consisting of B. Hari Vardhan, Jathin Renjith and Dhanu A Mahid developed an innovative solution aptly named Tuberculosis Environmental Factors Detector (TB-EFD). This innovation fosters a holistic shift in the approach to TB care by targeting environmental factors conducive to the spread of the disease.

One unique aspect of this innovation is that it consists of an advanced air quality monitoring system equipped with sensors capable of detecting carbon monoxide and dust levels causing TB. By maintaining air quality within permissible limits, this innovation serves as a crucial tool in safeguarding the health and well-being of both patients and healthcare workers.

Key to the success of TB-EFD was the collaborative effort of each team member, each contributing their unique skills and expertise and the guidance of their ATL in-charge Rajitha Abhilash. While Hari spearheaded the hardware connections and model construction, Jatin meticulously crafted the coding and Dhanu delved into in-depth research on TB and its transmission dynamics. Together, they navigated through challenges, iterated on their design, and fine-tuned their solution to perfection.

With tuberculosis (TB) accounting for over 1.4 million deaths worldwide annually, their innovation offers hope, providing a crucial tool in safeguarding the health and well-being of both patients and healthcare workers. Their solution stands as a testament to the transformative potential of teamwork and determination in reducing the burden of TB and improving global health outcomes.



ATL UID
19845829

Name of The School
Spic Nagar Higher Secondary School

Name of The Team
Idea Innovator

Team Members
Vanabharvathy Mutharasi, G.vanabharvathy Mutharasi, T.suja

ATL In-Charge
Jithamol B

Innovation Title
Fixed Cycle

District
Thoothukudi (Tuticorin)

State
Tamil Nadu

With obesity emerging as a significant health concern worldwide, caused by factors such as poor lifestyles and limited access to fitness equipment, the need for accessible and affordable solutions has never been more urgent. Motivated by the desire to address this issue, Team Idea Innovator from Spic Nagar Higher Secondary School formulated an innovation called the "fixed cycle," which offers a simple yet effective means for individuals to engage in regular exercise routines without the constraints of expensive gym equipment.

The team, composed of Vanabharvathy Mutharasi, G.Vanabharvathy Mutharasi and T.Suja, primarily focused on affordability and easy accessibility as their main agenda in building this innovation. By leveraging technology, the team developed a low-cost pulse monitoring system that keeps track of your heart rate from time to time. In guiding and ensuring wise, and more importantly, efficient use of technology, their mentor Jithamol B, played a pivotal role.

Upon the launch of ATL Marathon, these young innovators had the golden opportunity to work and research further on formulating their prototype. Through collaborative efforts of the members and regular monitoring and testing, the initial model turned out to be a success and achieved all benchmarks.

The innovative efforts of Team Idea Innovator from Spic Nagar Higher Secondary School underscore the importance of addressing global health challenges such as obesity through accessible and affordable solutions. Fixed Cycle has the potential to significantly impact individuals' fitness journeys by providing convenience and accessibility, addressing the multifaceted issue of obesity, which necessitates sustained lifestyle changes.

ATL UID
19845829

Name of The School
Spic Nagar Higher Secondary School

Name of The Team
Twinkleprenuers

Team Members
Prarthana R, Subiksha M

ATL In-Charge
Jithamol B

Innovation Title
Anaemic Tester

District
Thoothukudi (Tuticorin)

State
Tamil Nadu

Twinklepreneur, a dynamic team of students Prarthana R and Subiksha M from SPIC NAGAR HIGHER SECONDARY SCHOOL, recognized the growing problem of malnutrition and increasing cases of anaemia. To address this issue, the team, with the guidance of their mentor Jithamol B, developed an innovative device named “Anaemic Tester.” This device allows you to conveniently monitor your haemoglobin levels at home.

The relevance of this problem is evident in recent statistics. With over 2 billion people worldwide suffering from anaemia, the need for effective solutions like the “Anaemic Tester” is crucial. This invention by these young minds highlights the potential for a positive impact.

More importantly, the “Anaemic Tester” eliminates the need for frequent hospital visits, saving time and reducing costs for individuals. With further technological advancements, the device has the potential to become even more versatile, offering functionalities like blood sugar level testing and vital sign monitoring.

This solution, with its potential for expansion and accessibility, presents a powerful tool in the fight against blood-related problems. The combined efforts of Team Twinklepreneur,support of their ATL in charge Jithamol B and the resources provided by Atal Tinkering Labs have made this solution a reality, contributing to positive change.

ATL UID
25879822

Name of The School
Sri Sankara Vidyalayaa

Name of The Team
Ssv

Team Members
Shebi S D, Shevaali S D,

ATL In-Charge
Ramya K

Innovation Title
An Edible And Fusible Bio Bag

District
Karur

State
Tamil Nadu

In a world battling plastic pollution and its health risks, a team from Sri Sankara Vidyalaya has developed an innovative solution: an edible and fusible Bio Bag. Driven by the concerning rise in plastic consumption and its negative health impacts, the team created this alternative to address environmental and human well-being concerns.

The Bio-Bag is crafted from biodegradable materials, offering a sustainable alternative to conventional plastic packaging. Unlike traditional plastic bags that harm the environment, the Bio Bag decomposes rapidly, reducing plastic waste in our ecosystems. Additionally, its unique fusible properties allow for seamless integration into existing waste management systems, facilitating efficient decomposition and conversion into organic matter. This not only reduces pollution but also enriches the soil, tackling the dual challenges of plastic waste and soil degradation.

The team's success stemmed from the distinct roles each member played. Shebi SD focused on information gathering, prototyping, and testing, while the other member Shevaali SD ensured the innovation met technical and administrative requirements through documentation and registration. Their mentor and ATL Incharge Ramya K, guided them throughout their process of developing the very first prototype to participate successfully in the ATL Marathon. With the collective efforts of Team SSV and their mentor, their innovation proved to be a success.

This initiative, with its focus on biodegradability and waste management, showcases the potential for meaningful change, paving the way for a more sustainable future.

ATL UID	ATL In-Charge
25879822	Yogeswari S
Name of The School	**Innovation Title**
Sri Sankara Vidyalayaa	Tawa-Tawa Drink
Name of The Team	**District**
Tawa Tawa Team	Karur
Team Members	**State**
Pragathi, Shangitha, Jayasri	Tamil Nadu

The Tawa-Tawa Team, a team of three visionary individuals, has developed a groundbreaking solution to combat Dengue, a disease affecting over 390 million people annually. Their innovation, the Tawa-Tawa drink, aims to improve Dengue treatment and prevention, particularly in Southeast Asian and African countries.

Driven by the alarming prevalence of Dengue and the limitations of current treatments, the team explored the potential of Euphorbia Hirta, a plant traditionally used in folk medicine. Recognizing its medicinal properties, they embarked on a mission to develop a natural and accessible solution for Dengue patients.

Their continuous research and surveys revealed the Tawa-Tawa plant's ability to increase platelet count and alleviate Dengue symptoms. The team comprising Pragathi, Shangitha and Jayasri, by leveraging insights from local communities, developed a drink derived from the plant's leaves and roots. These easily accessible beverages were even distributed through local medical shops and tea stalls, which fostered communities to take charge of their health and well-being.

The Tawa-Tawa Team's journey signifies the transformative power of grassroots initiatives. Their participation in the ATL Marathon nurtured their entrepreneurial spirit and provided a platform to develop their idea into a tangible innovation. The team believes ATL and ATL Marathon to be the driving force of their innovation and more importantly, the teachings they got from their mentor Mrs. Yogeshwari S throughout the process.

ATL UID
14933323

Name of The School
Kendriya Vidyalaya No. 1, Rewa (M.p.)

Name of The Team
Techie Gang

Team Members
Harsh Bajpai, Sanskar Tiwari,

ATL In-Charge
Chandra Kiran Gupta

Innovation Title
Ezhealth

District
Rewa

State
Madhya Pradesh

"Healthcare should be within reach for everyone," said Mahatma Gandhi. Inspired by this powerful message, a group of two young students Harsh Bajpai and Sanskar Tiwari, the Techie Gang, has created EZHEALTH, a unique invention that makes healthcare more accessible. In a world facing ongoing health challenges, EZHEALTH tackles crucial issues like malnutrition and obesity, offering a fresh approach to managing these common conditions.

Traditional healthcare systems often struggle to meet the needs of everyone. With rising costs and limited resources, many people face challenges accessing proper care. The COVID-19 pandemic further highlighted these issues, making the need for innovative and affordable solutions even more critical. The Techie Gang under the supervision of their mentor and ATL In-charge Mr. Chandra Kiran Gupta set out to create a solution that was both helpful and accessible.

This innovation provides real-time information and support through features like email and phone call alerts for unusual vital signs. The system has a strong database for remote monitoring and is incredibly affordable, costing only Rs. 1800 (around USD 24), making quality healthcare a possibility for everyone.

Hospitals, health insurance companies, elder care facilities, and even parents caring for young children can benefit from this innovative system. Participating in the ATL Marathon not only gave this team a chance to research more upon their innovation but also instilled an entrepreneurial and innovative mindset in them.

ATL UID	ATL In-Charge
14933323	Chandra Kiran Gupta
Name of The School	**Innovation Title**
Kendriya Vidyalaya No. 1, Rewa	Ezhealth
Name of The Team	**District**
Techie Gang	Rewa
Team Members	**State**
Harsh Bajpai, Sanskar Tiwari,	Madhya Pradesh

A recent study suggests that over 1 billion people globally experience some form of upper limb challenge. Inspired by the difficulties faced by this community, two students Renuka and Aastha from Kendriya Vidyalaya No. 1 Rewa embarked on a creative journey to develop an innovative aptly named “Foot Toast”.

At their school’s Atal Tinkering Lab, a resourceful hub equipped with tools and materials, the students found the perfect platform to nurture their idea. With the guidance of their mentor Ms. Chandra Kiran Gupta, they participated in the ATL Marathon , a program that encourages young minds to tackle real-world problems.

Foot Toast addresses a gap in the market for upper limb challenged individuals. Shaped like a slice of toast, this user-friendly device allows computer operation using the feet. This not only empowers those with upper body limitations but also enhances focus for regular users by eliminating the need to constantly switch between mouse and keyboard. The simple design utilises readily available components like 3D-printed parts, resistors, and LEDs, making it potentially affordable and accessible.

This innovation represents the ingenuity and collaborative spirit fostered by ATL Labs. With further refinement, the students envision a wireless, comfortable, and cost-effective version, catering to a wider audience and making the digital world truly inclusive.

ATL UID
68038591

Name of The School
Smt R P Rajalakshmi Hindu Vidyalaya Mat Hr Sec School Thuckalay

Name of The Team
Pulse Monitoring System

Team Members
A.j. Adshaya Lekshmi, P.u Sushma, K.g Moshiba

ATL In-Charge
G. Sujatha

Innovation Title
Pulse Monitoring System

District
Kanyakumari

State
TAMIL NADU

Around 15% of global deaths are caused by communicable or infectious diseases. These issues were even aggravated during COVID-19 when it was almost impossible to move out and get regular health check-ups. Recognising this issue, Team Pulse Monitoring System comprising three young minds, A.J. Adshaya Lekshmi, P.U Sushma and K.G Moshiba developed innovation around a system which fosters at-home pulse monitoring and consultation facility at your convenience.

Individuals can now monitor their pulse remotely and easily consult with healthcare professionals from their homes. This not only empowers individuals to manage their health but also reduces the risk of exposure to infectious diseases, especially during times of social distancing and limited mobility.

The success of this innovation stems from collaboration, hard work, and the support of Atal Tinkering Labs (ATLs). ATLs, established to foster innovation and entrepreneurship among young minds, provided the team with crucial resources, mentorship, and support. Their ATL In-charge and Mentor G. Sujatha helped the students with defining the problem, developing necessary skills, facilitating communication, offering feedback, and connecting them to resources. This nurturing environment empowered them to improve and refine their idea and transform it into a tangible solution.

Their innovation tackles a vital healthcare gap, empowering remote monitoring and consultations. This innovation potentially reduces disease spread, especially during pandemics. Their success, nurtured by ATLs and G. Sujatha's guidance, inspires others. It highlights the potential of young minds to create impactful solutions for a healthier world.

Education

Innovate to integrate soft skills (personality building, confidence etc.), technical skills (digital and 21st century skills) and a mindset of innovation in the curriculum for schools/colleges to ensure students have the skill sets to become successful entrepreneurs or professionals.

Atl Uid
8f5d5910

Name of The School
D B M S English School

Name of The Team
Indo-Developers

Team Members
Samarth Pandey, Priyansh Panchal

ATL In-Charge
Hirak Biswas

Innovation Title
School Meet An Innovative All-Purpose Application.

District
East Singhbhum

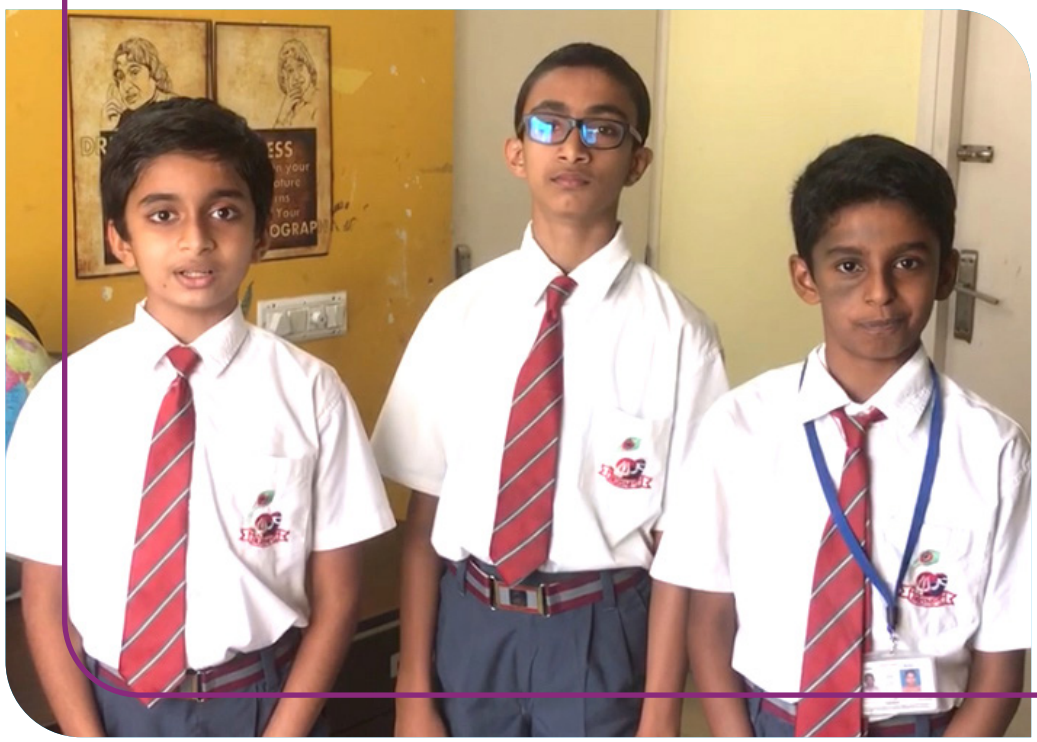
State
Jharkhand

Millions of students worldwide faced disruptions to their education due to the COVID-19 pandemic. Recognising the challenges posed by school closures, Samarth Pandey and Priyansh Panchal, two determined students with their mentor and ATL In-charge Mr. Hirak Biswas, developed "School Meet," an app designed to bridge the educational gap and facilitate remote learning.

"School Meet" equips both teachers and students with the tools needed for effective online learning. It provides features like real-time classes, webinars, and a full suite of teaching and learning tools, ensuring educational continuity even during difficult times. With features like student attendance data and 24/7 support, the app ensures user engagement and addresses potential concerns.

This innovation offers several advantages that set it apart from other options. When the team realised the importance of fostering accessibility and reaching a wide network, they made sure to make the application available in multiple languages and keep its user interface easy making it suitable not only for schools and colleges but also for universities and corporate training sessions.

During regular surveys and trial tests, this innovation received positive feedback from students and teachers. The team ensures to regularly update the app with real-time ideas. Team Indo-developers envision this application to be launched in Google Play and be widely used among schools. This student-led initiative exemplifies the power of innovation in overcoming challenges and ensuring that education remains accessible for all.



ATL UID
300212847

Name of The School
Bgs National Public School

Name of The Team
जगद्ध्वनिः

Team Members
Pranav Subramanian, Jainesh Saravanan, Suhrut Raghunandan

ATL In-Charge
Rajasree Vr

Innovation Title
Sf Music Learner

District
Bengaluru (Bangalore) Urban

State
Karnataka

“Music is a universal language that everyone understands.” Inspired by this quote, a team of young innovators - Pranav, Jainesh, and Suhrut - embarked on a mission to spread the joy of music globally. Their creation, a mobile application, aims to make music accessible, affordable, and boundaryless, fostering harmony through this universal language.

Their app caters to both music enthusiasts and aspiring musicians. It offers a unique “Format Converter” feature, allowing users to play music across cultures and instruments, bridging the gap between different musical traditions. Mentor and ATL In-charge Rajasree VR supported and guided the students to think out of the box and helped them develop unique features like Ear Training Games, Shruti Box, and Music Lessons.

Continuous improvement through innovation and feedback: The team’s dedication extends beyond initial development. They plan to add features like pitch detection, karaoke recording with adjustable scales, and performance analysis with feedback. This commitment to continuous improvement, coupled with their research and user feedback, ensures the app remains relevant and user-friendly.

Pranav, Jainesh, and Suhrut, through their collaborative efforts and innovative spirit, are weaving a melody of accessibility and cultural exchange, inspiring others to join the global chorus of music.

ATL UID
17084441

Name of The School
Kendriya Vidyalaya Air Force Station Naliya

Name of The Team
Equinox

Team Members
Mahi Jayal, Pragati Pandey, Akshara Devi

ATL In-Charge
Mr Nitesh Kumar Gupta

Innovation Title
Talking Colour Detector

District
Kachchh

State
Gujarat

“Art should have no boundaries,” the Team Equinox from Kendriya Vidyalaya Air Force Station Naliya firmly believes. Inspired by this sentiment, these three young individuals - Pragati, Mahi, and Akshara - set out to create a tool under the guidance of their ATL in-charge Mr Nitesh Kumar Gupta that empowers visually impaired individuals to pursue their artistic dreams. Their invention “Talking Colour Detector” is a simple yet innovative colour sensor. It emits light onto an object, detects the reflected light, and then announces the colour through a voice recorder. This allows users to identify colours while painting, selecting clothes, or navigating daily tasks, fostering a sense of independence and inclusivity.

Their vision behind this innovation is clear: to break down barriers and open doors to artistic expression. By eliminating the limitation of colour identification, individuals with visual impairments can now fully explore the world of art and confidently express their creative vision.

The team is committed to continuous improvement and expansion. They plan to upgrade their device with better equipment and software, allowing it to detect a wider range of colours. This dedication ensures that the colour Sensor remains relevant and effective in supporting the artistic aspirations of the visually impaired community.

The innovation “Talking Colour Detector” has the potential to create a world of possibilities and empower individuals to chase their artistic dreams. This project serves as an inspiring reminder that inclusivity and innovation can come in various forms, making a significant impact on people’s lives

ATL UID
520410101

Name of The School
Excel Public School

Name of The Team
Any Time Education

Team Members
C B Swarna, Eshanavi

ATL In-Charge
Meena Nagarajan

Innovation Title
Any Time Education

District
Mysuru (Mysore)

State
Karnataka

A World Bank report suggests the COVID-19 pandemic pushed an estimated 138 million additional students out of school, highlighting the challenges faced by those without reliable internet access. This issue motivated a team of young individuals C B Swarna and Eshanavi to develop a unique solution: “Any Time Education” , a self-reliant educational device powered by the sun.

This innovative device empowers students in remote areas to learn independently. It operates without internet connectivity or dedicated power supply, thanks to its solar panel and battery system. This innovative device is packed with features to enhance learning, some such examples are preloaded educational content in multiple languages that is easily accessible, audio-visual lessons and simulations make learning engaging and clear communication allowing students to interact with subject experts in real-time, fostering deeper understanding and addressing any questions they may have.

The team is committed to continuous improvement. Their future vision includes expanding the range of communication via radio, enhancing content with interactive activities, and adapting the material for a wider range of students, from pre-KG to university level.

Empowered by resources from Atal Tinkering Laboratory and guided by their mentor, ATL In-charge Mr. Meena Nagaranjan, this team is dismantling barriers and guaranteeing equal access to education. Their innovative approach utilises solar energy and technology to bring light and knowledge to children in remote areas, illuminating a brighter future

ATL UID
12042427

Name of The School
Apswr School And Junior College For Girls

Name of The Team
Team Hostel Suraksha

Team Members
M Hansika, K Sirivalli, B Sanjana

ATL In-Charge
Itraju Seetamma

Innovation Title
Hostel Suraksha

District
Vizianagaram

State
Andhra Pradesh

Many students in hostels face challenges in communicating urgent needs to wardens, especially in situations like sudden health concerns. This inspired a team of young innovators namely M Hansika, K Sirivalli and B Sanjana, to develop a simple yet effective solution “Hostel Suraksha”.

This innovative device empowers residents to notify wardens with a single press of a button. When the button is pressed, it initiates two approaches to alert wardens of a situation requiring assistance. Firstly, a visual reminder illuminates on a designated panel board, ensuring clear visibility. Secondly, an automated message is sent directly to the wardens’ phones, providing an additional layer of notification and potentially more detailed information about the situation.

The team acknowledges the significant contribution of Itraju Seetamma, ATL in-charge. Her guidance played a pivotal role in equipping students with a clear and practical approach throughout the process. ATL Marathon gave them a platform to not only represent their innovation on a nationwide scale but also made the team realise the importance of an Innovative and entrepreneurial mindset.

“Hostel Suraksha” exemplifies the power of student innovation to address real-world challenges. This single-button solution empowers residents, fosters faster response times during emergencies, and enhances overall safety within hostels. The dedication of M Hansika, K Sirivalli, B Sanjana, and their mentor, Itraju Seetamma, is commendable, showcasing the valuable outcomes fostered by the ATL Marathon in nurturing innovative and entrepreneurial mindsets amongst students.

Energy & Transportation

Innovate solutions that reducethe carbon footprint as well as adopt climate-resilient and low-carbon strategies to enable the transition to truly sustainable India

ATL UID
D1c18674

Name of The School
D.a.v. Public School, Vasant Kunj, New Delhi

Name of The Team
Team Jal

Team Members
Ishan Ghatak, Agam Yadav

ATL In-Charge
Ms Vandana Deepak

Innovation Title
Energefficient

District
South West Delhi

State
Delhi

Recent power shortages across the country, caused by factors like pollution concerns and limited coal reserves, are driving innovation in eco-friendly energy solutions. This highlights a growing awareness of the need for sustainable practices.

In response, a team from DAV Public School has developed a novel concept called "Energefficient." This is a special tank installed in vehicles to collect leftover greywater from car air conditioners. It also converts excess heat generated by the car's movement into usable electrical energy. This innovative solution tackles both water and energy conservation in a simple yet effective way.

Under the guidance of their mentor, Ms. Vandana Deepak, the team prioritised ease of installation and maintenance, affordability, and potential energy and water savings when designing the "Energefficient" tank. They were able to showcase their model at a national competition thanks to the resources and knowledge gained through their school's Atal Tinkering Labs.

The team, comprising Ishan Ghatak specialising in video editing and Agam Yadav focusing on research, data analysis, and prototype design, plans to further refine their prototype for broader accessibility and global impact. Their ultimate goal is to create a fully functional, highly efficient model that offers a practical solution to energy and water conservation challenges in the automotive industry.

ATL UID	ATL In-Charge
23545506	Pawan Kumar Patidar
Name of The School	**Innovation Title**
Kendriya Vidyalaya Khargone	Chipko 2.0
Name of The Team	**District**
E.co	Khargone
Team Members	**State**
Rishi Tare, Abhinav Gupta	Madhya Pradesh

According to recent studies, forests are disappearing at an alarming rate, with an estimated 18.7 million acres lost each year. Witnessing the destruction of a nearby forest, a team of two bright tinkerers Rishi and Abhinav decided to take action. Inspired by the need to protect trees, they developed "CHIPKO 2.0", a revolutionary security system. Their mentor Mr. Pawan Kumar Patidar played a pivotal role in guiding and supporting the team in their journey from idea to tangible innovation.

CHIPKO 2.0, taking its inspiration from the Chipko Movement of the 1970s, is a simple yet effective solution for tree protection. Once a tree is tampered with or harmed in any way, the system immediately sends an SMS to the user, pinpointing the tree's location using Google Maps. This instant notification allows for quick hassle-free action to prevent further damage. The relevance of this innovation extends far beyond anything else, as deforestation is one of the most pressing consequences of urbanisation.

Existing solutions for deforestation lack efficiency and permanence. Traditional methods such as fencing, CCTV cameras, or electric barriers offer temporary fixes. However, this innovation stands out as a permanent, accurate, and unique solution, filling a gap in the market with its innovative approach.

The potential applications of Chipko 2.0 extend beyond forests, with possibilities for implementation in various sectors such as the forest department and agriculture. Looking ahead, the team e.co aims to enhance its capabilities by adding more sensors, advancing its technology, reducing its size, and exploring alternative alert systems such as phone calls. Abhinav, the circuit designer and Rishi, the coder, collaborated to bring this innovation to life, showcasing the power of teamwork and innovation among students.

ATL UID
15286842

Name of The School
Delhi Public School Paradip Refinery

Name of The Team
Green Girls

Team Members
Nirbhika Singh Rathore, Sanghamitra Moharatha, Rajvee Das

Atl In-Charge
Prasad Nandipalli

Innovation Title
Mosquito Net Ac

District
Jagatsinghpur

State
Odisha

According to recent studies, households account for a significant portion of energy consumption, especially through appliances like air conditioners. In response to this, Team Green Girls from Delhi Public School Paradip Refinery developed a unique solution aimed at reducing power usage in home air conditioning units.

By confining the cooling effect to the sleeping area using a specially designed mosquito net fitted with a mini cooling unit made from a refrigerator compressor, they achieved an impressive 80% reduction in power consumption. This innovation is not only efficient but also adaptable, as it can be powered by a Home UPS and is easily detachable for maintenance.

They made a special mosquito net with a small cooling device made from a refrigerator compressor part. By keeping the cooling only in the sleeping area, this innovation became efficient and effective by considerably reducing around 80% of the power consumption of the household. This new idea works well and can be changed to fit different situations. It can be powered by a Home UPS and can be taken apart easily for fixing.

Prior to this development, no similar idea existed, highlighting the novelty and potential impact of the students' invention. This approach holds great promise for energy conservation without sacrificing comfort, particularly in family and individual households during nighttime use. The team envisions further improvements through the integration of temperature sensors and technological advancements, which could enhance both cost-effectiveness and energy efficiency.

The project was a collaborative effort, of each member of the team and most importantly their mentor and ATL In-charge in the process, Mr. Prasad Nandipalli. Nirbhika spearheaded the idea and model-making, while Sanghamitra skillfully documented the concept, ensuring clarity in its presentation. Meanwhile, Rajvee played a crucial role in explaining the topic and arranging necessary resources. Together, their combined efforts resulted in a practical and impactful solution to a pressing environmental concern.

ATL UID
12889271

Name of The School
The School Of The Good Shepherd

Name of The Team
Arrows

Team Members
Gouri Jayakrishnan, Krishna Nanda Sooraj, Samyuktha Nair

ATL In-Charge
Sumi Jose

Innovation Title
Surakshathe

District
Thiruvananthapuram

State
Kerala

“Transforming our roads with innovation, driving towards safer journeys.” - Inspired by the vision of Dr. APJ Abdul Kalam these three tinkerers Gouri Jayakrishnan, Krishna Nanda Sooraj and Samyuktha Nair researched the present state of roads and transportation in India and developed an innovation aptly named as “Surakshathe”.

One unique highlight of this innovation is the modifications the team did to the existing norms, one such is making the yellow light blink when there are 10 seconds left before turning red, which alerts the drivers to slow down resulting in a potential reduction in accidents caused by sudden changes in signals. Another crucial feature of their project is the implementation of a Stop line equipped with distance-detecting sensors. These sensors detect vehicles crossing the red line within 10 seconds of the countdown and trigger cameras to capture offenders immediately leading to the imposition of fines on such people. Moreover, their innovation has numerous unique features which all fostered a new-age approach to this pressing solution.

The approach is cost-effective and promises behavioural changes through consistent exposure to the new system. Drivers and pedestrians will benefit directly from the innovation, especially benefitting the visually impaired, fostering a safer road environment for all. The potential impact of this innovation extends to highways and junctions, offering a practical solution to curb accidents caused by driver’s inattention.

Team Arrows with their innovation “Surakshathe” proved that it is the entrepreneurial and innovative mindset that matters. This trio along with their mentor and ATL In-charge Ms. Sumi Jose wisely utilised resources available at the Atal Tinkering Lab of their school. ATL Marathon gave them a nation-wide platform to represent this innovation and foster skill development.

ATL UID
C5d66899

Name of The School
Lakshmipat Singhania Academy

Name of The Team
Sambhav

Team Members
Aarav Jhawar, Udayveer Agarwal, Neerav Nagori

ATL In-Charge
Dipankar Pal

Innovation Title
Sambhav

District
Kolkata

State
West Bengal

The prevalence of potholes on roads across the globe presents a significant challenge for both motorists and road maintenance crews. These defects can cause inconvenience, vehicle damage, and even safety hazards. To address this issue, Team Sambhav has developed a promising solution for pothole repair. Their approach centres on a unique material combination, incorporating limestone powder, ash, and various types of cement. This innovative mixture demonstrably outperforms traditional asphalt fillers in terms of durability and longevity.

Innovation "Sambhav" offers a cost-effective alternative to traditional road repair methods. The solution, when applied using their specially designed app and automated filling vehicle, ensures swift and efficient pothole repair. With just a smartphone and an internet connection, anyone can report a pothole, leading to its timely resolution within four days. This approach can be particularly beneficial in regions experiencing high levels of road damage, offering a solution accessible to all.

Looking ahead, Team Sambhav aims to scale their idea nationally, revolutionising road maintenance across the country. They plan to patent their unique pothole-filling product to enhance road safety and prevent accidents. By leveraging technology and innovative thinking, they aspire to elevate the quality of Indian roads, ensuring safer and smoother journeys for all travellers.

The success of this initiative is attributed to the collaborative efforts of Aarav Jhawar, Neerav Nagori, and Udayveer Agarwal and guidance of their mentor Dipankar Pal. Aarav's experimentation led to the development of a robust pothole solution, complemented by Neerav's automation expertise in the filling vehicle. Meanwhile, Udayveer's creation of the Sambhav App streamlined the reporting and repair process. Utilising tools from the Atal Tinkering Lab of their school, they brought their vision to life, demonstrating the power of innovation at any level of expertise.

ATL UID
28429691

Name of The School
Amrita Vidyalayam Puthiyakavu

Name of The Team
Mission

Team Members
Krishnendu S Pillai, Malavika M

ATL In-Charge
Rajitha Abhilash

Innovation Title
Green Age

District
Kollam

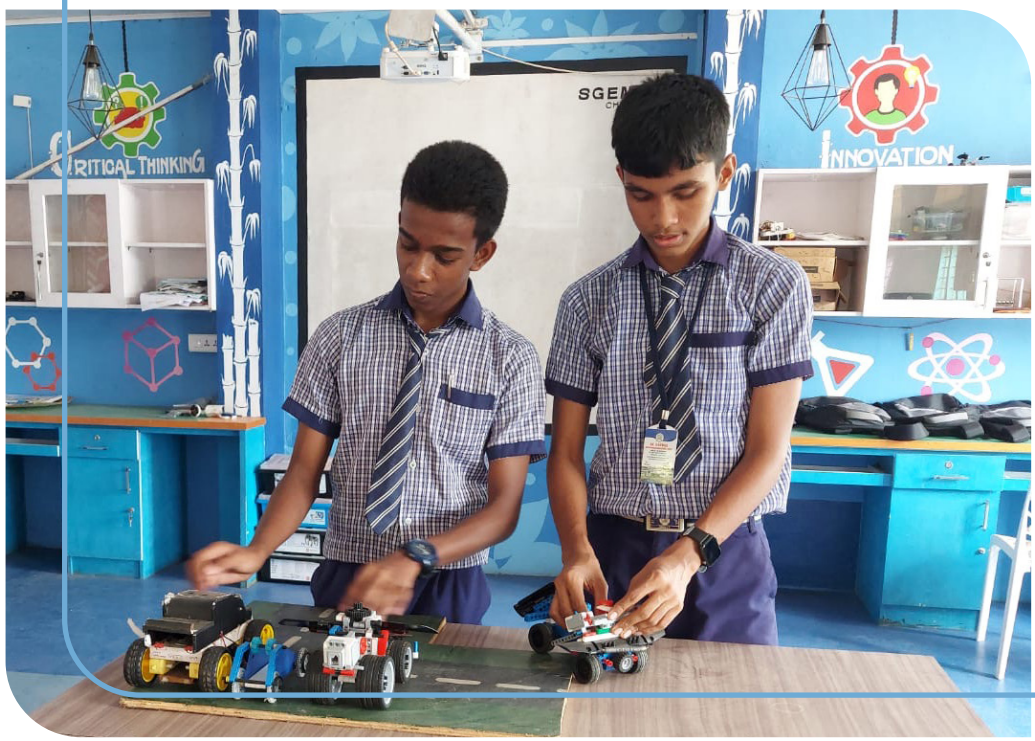
State
Kerala

Recent statistics reveal a significant carbon footprint in the atmosphere, largely caused by conventional fuels like LPG. This has severe health implications as well. Inspired by this global concern, a group of students Krishnendu S Pillai and Malavika M at Amrita Vidyalayam Puthiyakavu's Atal Tinkering Lab (ATL) developed an innovative solution titled "Green Age" which focused on replacing LPG with Biogas and other clean fuels.

Their invention tackles the issue by promoting the use of Biogas, a fuel source with a lower carbon footprint than LPG. Biogas is produced through a process where organic waste decomposes into methane gas by microorganisms. This gas can then be stored and used for cooking, making it a sustainable and readily available alternative to traditional fuels.

The key advantage of their solution lies in its emphasis on Biogas. Unlike LPG, Biogas production utilises everyday organic waste, making it cost-effective and environmentally friendly. Targeting small-scale food vendors and households, a shift towards Biogas could significantly reduce carbon emissions, promoting a healthier planet.

The students effectively utilised the ATL's tools and resources to develop their prototype, demonstrating their resourcefulness and creativity. Their mentor Rajitha Abhilash at the ATL provided them invaluable guidance and support throughout the ATL Marathon process. This student-driven initiative, nurtured by the ATL program, exemplifies the potential of young minds to tackle global challenges and pave the way for a greener future.



ATL UID
25998374

Name of The School
St.george English Medium School, Chully

Name of The Team
Bosco

Team Members
Ashwin Shyijan, Navajyoth Shaju

ATL In-Charge
Shiney Suresh

Innovation Title
Charge Plex

District
Ernakulam

State
Kerala

Despite the growing popularity of electric cars, a recent study reveals that gasoline vehicles remain dominant, largely due to the perceived inconvenience of charging. Inspired by this challenge, a team of young innovators Ashwin Shyijan and Navajyoth Shaju, supported by the Atal Tinkering Lab (ATL) at their school, embarked on a mission to simplify the electric vehicle charging experience. Their creation, ChargePlex, is a testament to the power of ATL in nurturing young minds.

ChargePlex draws inspiration from existing technologies to address key drawbacks of traditional car chargers. Unlike bulky and limited charging stations that strain the power grid, this innovation offers a sleek and efficient solution. It utilises a two-part system: 1) Power supply: This connects to multiple charging plugs ensuring efficient power distribution. 2) Automated charging connector: Integrated into parking curbs, this eliminates the need for constant car repositioning during charging.

The team's mentor Mr. Shiney Suresh at the ATL played a crucial role in their journey. They provided access to necessary resources and guided them through the ATL Marathon participation process. Now, the team seeks to refine their prototype by testing its accuracy and integrating it with a mobile application for enhanced user experience.

ChargePlex, born within the supportive environment of the ATL, has the potential to further innovate the electric vehicle charging landscape. By offering a simpler, more accessible solution, this innovation paves the way for a smoother transition to a sustainable transportation future

ATL UID
950b1248

Name of The School
Amity International School

Name of The Team
The Innovators

Team Members
Garv Jhunjhunwala, Gaurav Jhunjhunwala, Shaurya Arora

ATL In-Charge
Ekta Soni

Innovation Title
The Electro Spinner

District
Ghaziabad

State
Uttar Pradesh

Globally, there are a lot of people who don't get sufficient Electricity to sustain themselves. This challenge, coupled with the growing demand for energy and the government's push for self-sufficiency under the Atma-Nirbhar Bharat Scheme, inspired a trio of young innovators Garv Jhunjhunwala, Gaurav Jhunjhunwala, and Shaurya Arora at the Atal Tinkering Lab (ATL) in their school. Mentored by Ms. Ekta Soni, their mentor and ATL In-charge, developed a unique solution namely "The Electro Spinner".

This innovative project tackles two crucial needs in rural areas: electricity generation and income creation. Users can generate electricity through manual effort, making it a cost-effective and reliable option. Additionally, this same manual effort can be used to power a spinning mechanism, allowing users to convert raw materials like cotton and jute into thread, creating a sellable product and a source of income.

The most unique thing about this innovation is that the prototype is designed to be user-friendly, regardless of the user's educational background. This ensures accessibility for a wider population in rural areas. The design can be adapted to incorporate additional functionalities like stitching clothes, separating corn kernels, and grinding grains.

With the help of "the Electro Spinner", team innovators aim to empower rural communities by transforming individuals from passive citizens into active participants in their economic well-being. With the guidance of their mentors and the resources provided by the Atal Tinkering Lab, this team is demonstrating the potential for innovation to address real-world challenges.

ATL UID
520410101

Name of The School
Excel Public School

Name of The Team
Low-Carbon Material (Lcm)

Team Members
Divya Satish, Sharanya M C, Tajnashree S S

ATL In-Charge
Meena Nagarajan

Innovation Title
Low-Carbon Material (Lcm)

District
Mysuru (Mysore)

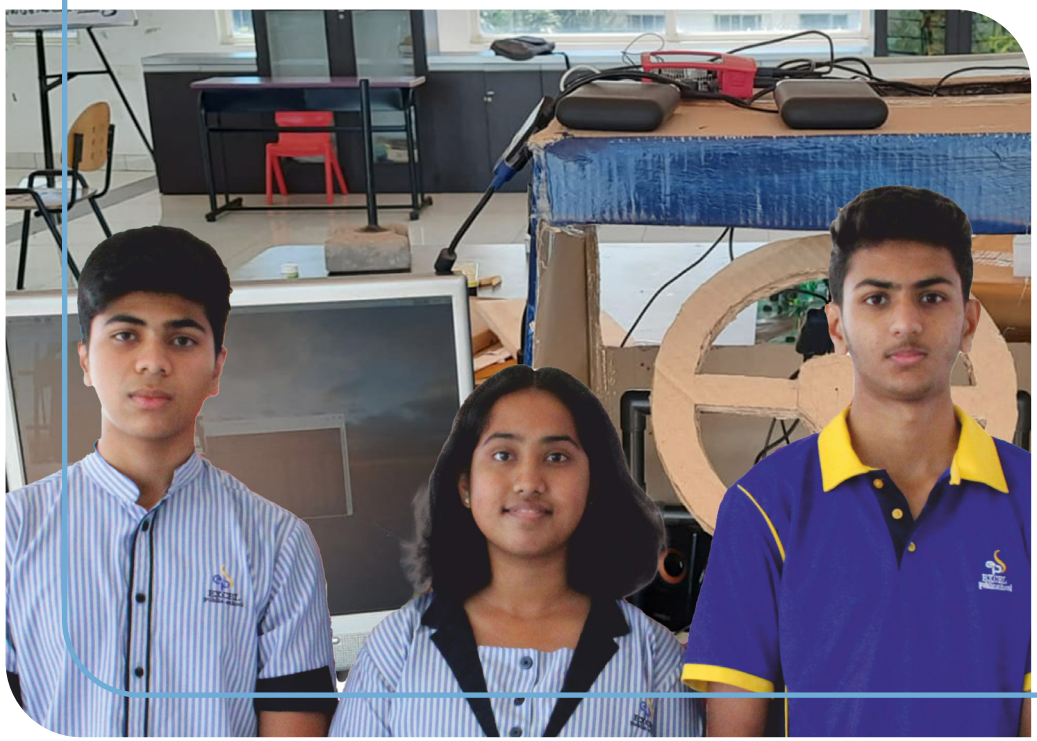
State
Karnataka

A student team from Excel Public School Divya Satish, Sharanya M C and Tajnashree S S, concerned about the environmental impact of construction materials, decided to innovate. Inspired by the staggering statistic that the construction sector is responsible for over 37% of global carbon emissions, they set out to develop a more sustainable solution.

Their solution is Eco-friendly, low-carbon bricks. The team, supported by their mentor Meena Nagarajan at the Atal Tinkering Lab in their school, participated in the ATL Marathon to bring their idea to life. The Atal Tinkering Lab provided them with the resources and guidance needed to experiment and refine their project.

The key to their innovation lies in the materials used. They replaced traditional high-emission materials like concrete with a low-carbon mix. This mix included readily available, recycled, and waste materials like recycled paper, bio-waste, and local soil. This not only reduced the carbon footprint of the brick production process but also minimised transportation emissions, as these materials were sourced locally. Additionally, made from biodegradable or recycled materials, they are inherently eco-friendly.

The team is enthusiastic about the potential of their innovation. If their project is selected for further development, they plan to refine the brick composition to address any shortcomings identified during testing. They also envision constructing a small structure using these bricks to assess their effectiveness in real-world applications. Ultimately, their goal is to make these eco-friendly bricks a popular and accessible choice for sustainable construction



ATL UID
520410101

Name of The School
Excel Public School

Name of The Team
Intelligent Driver Companion

Team Members
Samartha Raghav, Samartha Venkata Narayana, Moulya S Gowda

ATL In-Charge
Meena Nagarajan

Innovation Title
Ntelligent Driver Companion

District
Mysuru (Mysore)

State
Karnataka

"Road safety is a shared responsibility," emphasises a global road safety campaign. Inspired by this call to action, a team of students Samartha Raghav, Samartha Venkata Narayana and Moulya S Gowda from Excel Public School decided to tackle the growing concern of drowsy driving with their innovation "Intelligent Driver Companion".

Their innovation began at their school's Atal Tinkering Lab (ATL). With the guidance of their mentor Mr. Meena Nagarajan, the team participated in the ATL Marathon. Participating in the marathon not only boosted their problem-solving skills but also provided them with a holistic viewpoint of the problem statement through in-depth analysis of the on-ground issues faced by locals.

The team's creation, the "Intelligent Driver Companion," is an AI-powered device that safeguards drivers from fatigue-induced accidents. This innovative system monitors eye blinking patterns, alcohol levels, and driving duration. If the driver shows signs of drowsiness, exceeding alcohol limits, or driving for extended periods, the device triggers an alert to both the driver and passengers.

This compact and portable device can be installed in various vehicles, from personal cars to large trucks. The team envisions their invention playing a crucial role in reducing road accidents globally, promoting safer journeys for everyone.

ATL UID

520410101

Name of The School

Excel Public School

Name of The Team

Overload Bridge Protection System

Team Members

Anvith Venkatesh Shetty, Samanyu Dayanand, Chaitanya Poorna Satish

ATL In-Charge

Meena Nagarajan

Innovation Title

Overload Bridge Protection System

District

Mysuru (Mysore)

State

Karnataka

Bridges are a vital part of our infrastructure, but overloading can lead to dangerous situations. “A recent survey identified thousands of bridges in critical condition,” a student team from Excel Public School remarked, highlighting the global concern. Inspired to find a solution, they looked to create a system to safeguard bridges from excessive weight, this innovation is the “Overload Bridge Protection System”.

The Atal Tinkering Lab (ATL) at their school proved to be a launchpad for their innovation. It not only provided valuable resources but also fostered a culture of creativity in young minds. With guidance from their mentor Mr. Meena Nagaranjan, the team participated in the ATL Marathon, a platform that promotes tinkering.

The highlight of this innovation is its seamless features, the sensors on the bridge would detect the weight of each vehicle. If the total weight surpasses the bridge’s capacity, an alarm would warn drivers and prevent them from crossing until the traffic load lessens. This system would significantly extend the lifespan of bridges around the world.

Through the gathering and sharing of traffic data with concerned authorities, Anvith Venkatesh Shetty, Samanyu Dayanand, and Chaitanya Poorna Satish aspire to establish a comprehensive automated framework for ensuring bridge safety. Their steadfast commitment to this endeavour underscores the transformative power of student ingenuity in tackling practical issues. As Steve Jobs once remarked, “Innovation distinguishes between a leader and a follower,” their initiative epitomises the essence of innovative leadership in driving societal progress.

ATL UID
27704568

Name of The School
Delhi Public School, Jalandhar

Name of The Team
Replastic

Team Members
Gunika Beriwal, Abhinav Tejpaul, Satyam Verma

ATL In-Charge
Umang Tiwari

Innovation Title
Replastic - Recycling Plastic For A Better Future

District
Jalandhar

State
Punjab

Driven by the desire to create a more sustainable future, a team of young innovators Gunika Beriwal, Abhinav Tejpaul and Satyam Verma from Delhi Public School, Jalandhar set out to address plastic waste management within their local community. This innovation is so relevant in today's world when there's a global need for an effective yet sustainable solution to plastic waste management.

Their groundwork began at the Atal Tinkering Lab (ATL) established at their school. The lab equips the team with the necessary resources to foster their innovation. Under the guidance of their mentor Mr. Umang Tiwari, the team entered the ATL Marathon, a nationwide competition designed to empower student innovators.

The team's proposed solution, titled "RePlastic", seeks to streamline plastic recycling for a better future. Residents can conveniently schedule plastic pickups through a user-friendly website. The organisation will then employ ragpickers to collect the plastic waste directly from homes and workplaces. This collected plastic will be transported to designated collection points strategically located throughout the city, ensuring easy access for recycling companies.

"Our project offers a two-fold solution," remarked a member of the team. "While it directly combats plastic pollution, it also fosters employment opportunities within the local community." Their vision is for their app to become the central hub for responsible plastic waste disposal, promoting environmental well-being alongside local economic benefits.

Social Inclusion

Innovate to create a sustainable model for financial inclusion which will help India get closer to the goal of no poverty by providing accessible and affordable financial services to all.

ATL UID
167b11785

Name of The School
Gita Niketan Awasiya Vidyalya

Name of The Team
Edufun

Team Members
Jivitesh Gupta, Bhaumika Gupta

ATL In-Charge
Geeta Arora

Innovation Title
Edu-Robo-Fun

District
Kurukshetra

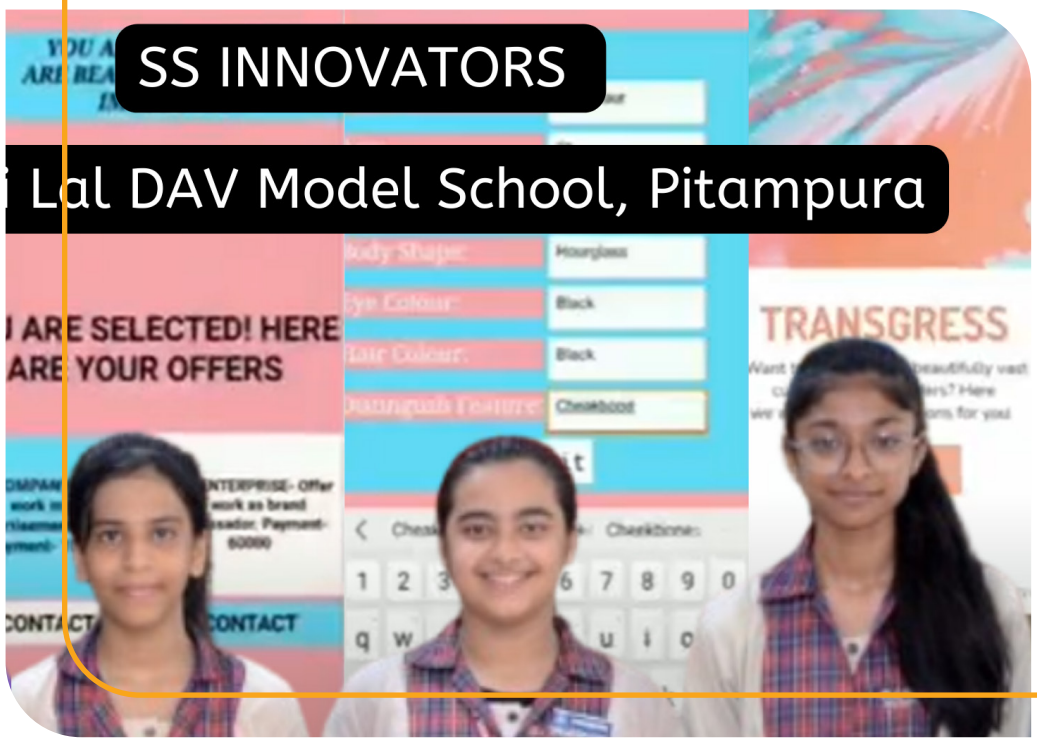
State
Haryana

“Education is not preparation for life; education is life itself”. Inspired by this quote, a group of enthusiastic students from Gita Niketan Awasiya Vidyalya, decided to tackle the growing need for engaging and accessible online learning tools.

Recognising the increasing importance of digital literacy in a world driven by technology, these students identified a challenge - the lack of readily available and fun resources for self-directed learning. With the support of their mentor, Ms. Geeta Arora at the Atal Tinkering Lab in their school, together they embarked on a journey of innovation to participate in the ATL Marathon. The Atal Tinkering Lab provided them with the necessary equipment and resources to bring their idea to life.

Their solution is “Edufun” an innovative educational application designed to improve language literacy, including translation and pronunciation skills. This app caters to a wide range of users, making it valuable for students of all ages. The user-friendly design and focus on making learning an enjoyable experience.

These young tinkerers, Jivitesh, responsible for the app’s coding, and Bhaumika Gupta, who designed the interface, are confident that their application has immense potential. They believe that being selected in the top 100 of the ATL Marathon will allow them to further develop the app, adding even more features to enhance the learning experience for users worldwide.



ATL UID
1417218

Name of The School
Darbari Lal Dav Model School Pitampura

Name of The Team
Ss Innovators

Team Members
Sanchi Bansal, Swasti Sharma, Zaara Gani

ATL In-Charge
Charu Dhodi

Innovation Title
Transgress

District
North West Delhi

State
Delhi

“We want to promote the beauty of transgenders”, stated a group of enthusiastic students determined to tackle a pressing social issue. Inspired by the struggles of transgender individuals, particularly their lack of job opportunities, these young minds embarked on a creative project during the ATL Marathon.

The Atal Tinkering Lab (ATL) at their school played a crucial role in their innovation. With access to necessary resources and guided by their mentor Charu Dhodi, the students developed “Transgress,” a one-of-a-kind application designed to empower the transgender community through fashion. Recognising the often-overlooked talent and beauty within the transgender community, “Transgress” aims to bridge the gap between them and the fashion industry.

The app caters to three key audiences: transgender models, brands seeking diverse representation, and anyone interested in exploring transgender fashion. Transgender models can create profiles, showcasing their talent and connecting with brands directly. Brands, on the other hand, can discover a pool of unique models, fostering a more inclusive fashion landscape. Finally, the buyer section offers a platform for users to explore and purchase clothing and accessories that celebrate transgender culture, modelled by the app’s registered models.

Sanchi Bansal, Swasti Sharma and Zaara Gani, the ingenious minds behind “Transgress”, envision the app as a springboard for a larger movement. Their ambition extends beyond the app itself; they dream of creating a comprehensive platform where transgender individuals can not only find jobs in the fashion industry but also develop their skills in various sectors, ultimately paving the way for a more independent and empowered transgender community.

ATL UID

4f8112431

Name of The School

Delhi Public School Greater Faridabad

Name of The Team

Edusagar

Team Members

Tulip Prakash, Srisha Prasad, Anya Aggarwal

ATL In-Charge

Geetika Mehta

Innovation Title

Edusagar: An Ocean Of Education

District

Faridabad

State

Haryana

“Education is the most powerful weapon which you can use to change the world,” said Nelson Mandela. Inspired by this quote and the alarming dropout rates in secondary schools, three students - Tulip, Srisha and Anya - decided to make a difference.

Their innovation, EduSAGAR, is a mobile application that tackles various challenges faced by students, particularly those from underprivileged backgrounds. Recognising that financial constraints and accessibility issues are major contributors to dropouts, EduSAGAR offers a variety of features to bridge the gap. Students can access audiobooks, explanations of topics in sign language for inclusivity, and multilingual content. The app even facilitates the purchase of second-hand learning materials at affordable prices.

Atal Tinkering Labs (ATL) at their school played a crucial role in their journey. The ATL program provided them with the necessary resources to develop their app and participate in the ATL Marathon. With the help of their mentor and ATL In-charge Ms. Geetika Mehta, the team was able to refine their idea and transform it into a user-friendly platform.

EduSAGAR goes beyond just providing educational resources. It fosters a spirit of community and social responsibility. The app allows users to donate books and worksheets, and connect with online tutors for affordable classes. In the future, they aim to create a cost-effective tablet or smartphone bundle to address the challenge of limited access to electronic devices, ensuring a more inclusive learning experience for all. Their innovation holds immense potential to empower students, particularly those in rural areas, and contribute to a more literate and aware society

ATL UID
8718288

Name of The School
Jawahar Navodaya Vidyalaya Karaikal

Name of The Team
Domestic Kings

Team Members
Archana R, Lathikasri

ATL In-Charge
R Srinivasan

Innovation Title
Domestic Water Treatment Plant

District
Karaikal

State
Puducherry

“Clean water is a fundamental human right and a prerequisite for health and sustainable development,” said the Director-General of UNESCO, rightly pointing out the importance of clean water. Inspired by this global issue, a group of enthusiastic students decided to create a solution for domestic wastewater treatment.

Their innovation began at the Atal Tinkering Lab (ATL) at their school. The ATL provided them with the necessary resources and a platform to participate in the ATL Marathon. With the guidance of their mentor Mr. R Srinivasan, team members Archana R and Lathikasri developed a model specifically designed for domestic wastewater treatment namely “Domestic Water Treatment Plant”.

Unlike most industrial water treatment plants that rely on chemicals with potential side effects, this student-designed innovation utilised natural elements for purification. The system uses wild canna lilies to regulate water flow and pebbles to remove detergents, common contaminants in household wastewater. The treated water then undergoes quality checks, measuring factors like Total Dissolved Solids (TDS) and microbial levels, before being discharged into ponds. Algae in the ponds further enhances the process by increasing oxygen content, making the water suitable for reuse.

This innovative model offers a cost-effective and eco-friendly solution for domestic wastewater management. It not only purifies wastewater but also promotes water conservation by enabling its reuse, thereby reducing the strain on depleting groundwater resources. The team is also looking to further refine their model to manage excess water flow through the treatment system. Their dedication and creativity hold immense potential for addressing global water challenges.

ATL UID
8718288

Name of The School
Government Women Polytechnic College

Name of The Team
Social Empathy Builders

Team Members
Seethala Devi, Yogalakshmi, Archana R

ATL In-Charge
R Srinivasan

Innovation Title
Sign Language Interpreter

District
Karaikal

State
Puducherry

“There is a world without voice, but it’s not silent”. Inspired by the beauty and complexity of sign language, a group of enthusiastic students together known as Team Social Empathy Builders from Government Women Polytechnic College, decided to bridge the communication gap between the hearing and non-hearing communities.

The potential impact of this app extends beyond basic communication. Imagine a doctor understanding a patient’s concerns in real-time, or a teacher effectively conveying lessons to students who rely on sign language. The app could even be a valuable tool for anyone who interacts regularly with the deaf community. With consistent use, the app could even help users become more proficient in sign language themselves.

This innovation began at the Atal Tinkering Lab (ATL) in their school. Equipped with resources and guided by their mentor and ATL In-charge Mr. R Srinivasan, the students embarked on their project during the ATL Marathon. One of the most unique features of this app is that this user-friendly app would not only display the translated text on screen but could also convert it to voice for a more natural experience.

Looking ahead, the team is exploring ways to make their app a two-way communication tool. This ambitious goal would allow users to speak into the app, which would then translate their words into sign language displayed on the screen. This innovation shows the collaborative spirit of the ATL initiative, bringing together students from both ATL and non-ATL schools to create a more inclusive world.

ATL UID
8718288

Name of The School
Government Women Polytechnic College

Name of The Team
Smart Merchants

Team Members
Abhinaya, Divyabharathi, Lavanya S

ATL In-Charge
R Srinivasan

Innovation Title
Modified Qr Scanner

District
Karaikal

State
Puducherry

“Innovation is seeing opportunity where others see problems”, says entrepreneur Steve Jobs. Following this mindset, three young tinkerers namely Abhinaya, Divyabharathi and Lavanya S, identified a common concern in everyday transactions. QR code payments, while convenient, lacked real-time confirmation, creating confusion for both customers and merchants.

Determined to address this gap, the students, with the guidance of their mentor Mr. R Srinivasan, embarked on a project at the ATL Marathon. The Atal Tinkering Lab (ATL) at their school played a crucial role by providing them with the necessary resources and a platform to develop their idea.

Their innovation involved a unique QR code board. This board, unlike the static ones commonly used, featured an LCD. Upon a successful transaction, the display would showcase the received amount and a transaction number, offering instant confirmation to both the customer and the merchant. This not only eliminates confusion but also provides a record for dispute resolution, benefiting both parties.

The students envisioned this board being used extensively in shops and restaurants. This inclusive innovation leveraged online tools, showcasing the power of teamwork and innovation in tackling everyday challenges. Together they proved that innovative mindsets do see opportunities in issues and problems.

ATL UID
25074751

Name of The School
Air Force School Viman Nagar,

Name of The Team
Astraco

Team Members
Arnav Pal, Suryapratap Sandeep Patil

ATL In-Charge
Shantaram Darekar

Innovation Title
Kisan Setu

District
Pune

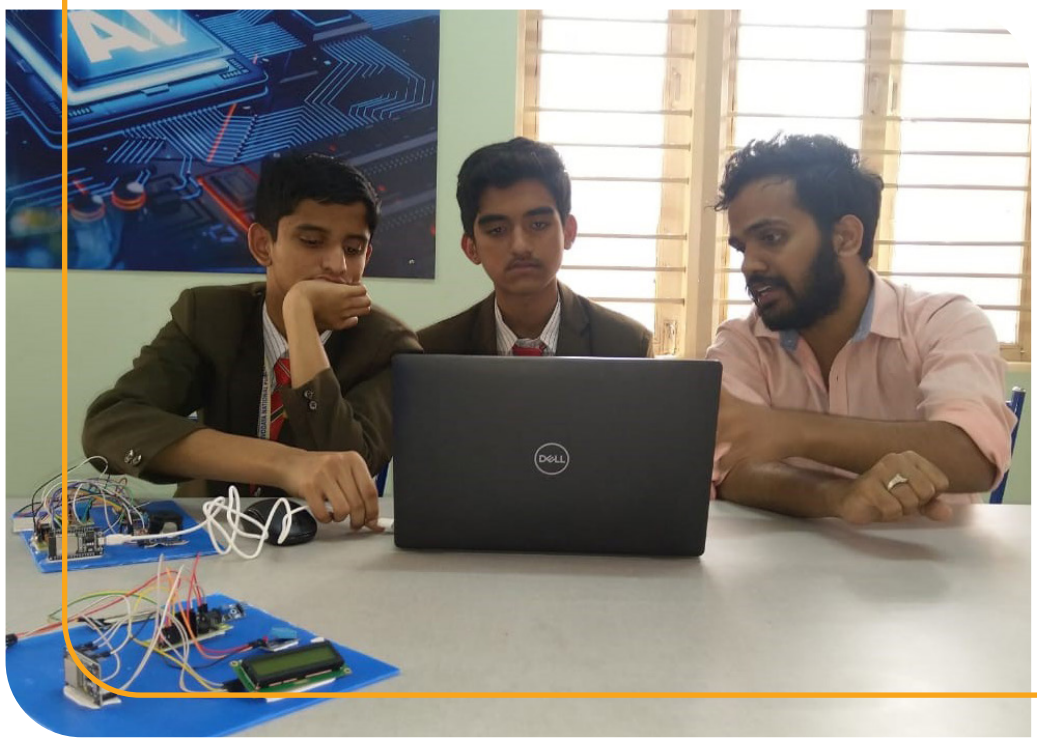
State
Maharashtra

"There is a growing concern for the future of agriculture," a recent report highlighted, "with many farmers feeling unsupported and discouraged." Inspired by this challenge, a group of students decided to take action with their innovation "Kisan Setu".

At their school's Atal Tinkering Lab (ATL), Suryapratap Sandeep Patil and Arnav Pal found the resources and guidance they needed to turn their idea into reality. With the help of their mentor Mr. Shantaram Darekar, during the ATL Marathon, began creating KISAN SETU, an app designed to empower farmers.

KISAN SETU, which translates to "bridge" in Hindi, aims to bridge the gap between farmers and the information they need. The app works in two ways. First, it acts as a "scheme announcer," providing farmers with clear and accessible information about government initiatives designed to support them. Second, it personalities the user experience by allowing farmers to identify specific problems they're facing and then delivering targeted information on relevant schemes.

This user-friendly app has the potential to be a valuable tool for farmers around the world. Imagine farmers in any country, with a few simple clicks on their phones, gaining access to crucial knowledge that can improve their livelihoods. KISAN SETU is a testament to the power of young minds and the importance of initiatives like ATL that nurture their creativity and problem-solving skills.



ATL UID
21351161

ATL In-Charge
P Latha Bharadwaj

Name of The School
Sarvodaya National Public School

Innovation Title
Scam Detector

Name of The Team
Team Sd

District
Bengaluru (Bangalore) Urban

Team Members
Harshith S Aglagaddi, Dhruva Patil

State
Karnataka

A staggering number of people fall victim to online scams every year, often through deceptive websites and links. Inspired to tackle this growing problem, a group of enthusiastic students decided to create a software solution “Scam Detector” during the ATL Marathon.

The students, Harshith and Dhruva, designed this innovation that safeguards users from online threats. When someone clicks on an unknown link, the software springs into action. It meticulously scans the website’s code, searching for any hidden malware or viruses that could potentially steal personal information. If a threat is detected, the software acts as a shield, blocking the website and alerting the user with a clear warning message: “Threats Found!” Conversely, if the site is deemed safe, a reassuring message of “No Threats Found” appears.

“Scam Detector” offers a distinct advantage over traditional antivirus programs. While antivirus software excels at protecting against downloaded programs, it often overlooks the dangers lurking within the website code itself. These hidden codes can quietly access a user’s privacy without detection. The students’ software fills this crucial gap by actively searching for scam codes and providing real-time warnings, making it a valuable tool for anyone navigating the ever-evolving online landscape.

With the invaluable guidance of their mentor and ATL In-charge Ms. P Latha Bharadwaj at the Atal Tinkering Lab (ATL) at their school, the students were able to access the necessary resources to bring their creation to life. The ATL provided a supportive environment where they could experiment, refine their prototype, and ultimately develop a user-friendly software solution. Looking ahead, the students are eager to further develop their software, particularly in its ability to detect data-grabbing codes.

ATL UID

E5d32225

Name of The School

Pathipaga Chemmal K Ganapathi Government Higher Secondary School

Name of The Team

Pckg-Innovators

Team Members

G Charulatha, N Jayasri, S Pavithra

ATL In-Charge

Vijayalaksmi

Innovation Title

Mobi-Sat

District

Chennai

State

Tamil Nadu

A recent study found that eight out of ten people globally own smartphones. Inspired by the ever-growing number of electronic devices reaching the end of their lifespan and the challenge of electronic waste disposal, a group of enthusiastic students decided to create a unique solution.

Guided by their mentor Ms. Vijayalaksmi, members G Charulatha, N Jayasri, and S Pavithra, all students, began working on their project during the ATL Marathon. The Atal Tinkering Lab at their school provided them with the necessary resources and a platform to experiment and innovate. Their idea, a mobile phone satellite, or "Mobi-sat" - aimed to address two pressing issues: the growing problem of e-waste and the need for more accurate weather prediction systems.

The Mobi-sat concept centred on repurposing smartphones into tiny satellites. By utilising the in-built sensors like GPS along with additional sensors, the "Mobi-sat" could collect valuable weather data. This data, once processed through a mobile application, could provide highly accurate forecasts for factors like precipitation, temperature, and wind speed.

The students envisioned a future where fishermen could use these precise weather forecasts to navigate safely and farmers could optimise their agricultural practices to minimise crop damage. With their prototype, they hoped to not only tackle e-waste but also contribute to a more sustainable future for communities around the world.

ATL UID	ATL In-Charge
26182098	Pragati Pushkar Joglekar
Name of The School	**Innovation Title**
Podar International School Sangli	Cartoonify Nft's
Name of The Team	**District**
Technical Hackers	Sangli
Team Members	**State**
Dev Kore, Rijul	Maharashtra

A recent study suggests a surge in interest surrounding Non-Fungible Tokens (NFTs), with a global market exceeding by 9% each year. Inspired by this potential to empower artists, a group of students decided to bridge the digital divide and create economic opportunities for rural communities.

Seeing the challenges faced by villagers in accessing and selling NFTs, these young innovators, Dev Kore and Rijul set to work. They envisioned a user-friendly application that would simplify the NFT creation process for rural artisans. The Atal Tinkering Lab (ATL) at their school proved instrumental in their journey. The lab provided them with the necessary resources and a platform to develop their idea. With the guidance of their mentor Ms. Pragati Pushkar Joglekar, they participated in the ATL Marathon , a competition that fosters student innovation across India.

The core idea behind their innovation “Cartoonify NFTs” is to empower rural artists by streamlining the NFT creation process. Villagers can use the app to convert their artwork into digital assets, opening doors to a global marketplace. This innovation presents a unique opportunity to bridge the gap between rural talent and the NFT market. Imagine beautiful paintings from remote villages finding a place on international platforms, generating income and recognition for these deserving artists.

The team is now focused on refining its user interface to ensure maximum accessibility for rural users. They plan to implement their application in villages soon, hoping to empower local communities and showcase their artistic talents on a global scale. Their dedication and innovative spirit serve as an inspiration to aspiring young minds everywhere, highlighting the power of technology to bridge divides and create positive change.

ATL UID
10652354

Name of The School
Sri Sarada Vidya Nilayam

Name of The Team
Smart Motor

Team Members
Nemala Sathwik,Gavara Jairaj And Miriyala Dinesh

ATL In-Charge
Pdln Srinivas

Innovation Title
Rewawa (Reduce Water Wastage)

District
Visakhapatnam

State
Andhra Pradesh

Inspired by a persistent problem of water overflow from tanks in residential and commercial buildings, a group of students Nemala Sathwik,Gavara Jairaj and Miriyala Dinesh decided to develop an affordable and user-friendly solution. The issue at hand was that existing commercial products for preventing water overflow were either too expensive or complicated to install, making them inaccessible for many households and businesses.

Seeing this challenge, these young innovators set out to create the "Smart Motor Controller," a device designed to automatically stop the power supply to water motors once the water reaches a predetermined level. This innovation aims to provide a simple, cost-effective solution to prevent water wastage and overflow.

The Atal Tinkering Lab (ATL) at their school played a crucial role in their journey, offering them the resources and platform needed to bring their idea to life. With guidance from their mentor PDLN Srinivas , they participated in the ATL Marathon, a competition that encourages student innovation across India.

The core idea behind the "Smart Motor Controller" is to assist homeowners who use electric water motors to fill overhead or underground water tanks. The device is particularly beneficial for individuals aged 30-60 living in cities and towns. By addressing the common problem of water overflow, the innovation holds significant potential to conserve water and reduce utility bills.

The team is now focused on refining their product to ensure it is as user-friendly and accessible as possible. They plan to scale up their project by targeting households in urban and semi-urban areas, aiming to make the "Smart Motor Controller" a household essential. Their dedication and innovative spirit highlight the impact of technology in solving everyday problems and creating sustainable solutions for the future.

ATL UID
12731348

Name of The School
Jagran Public School, Noida

Name of The Team
Truckzz

Team Members
Disha Chauhan,Divya Agnihotri

ATL In-Charge
Kk Shukla

Innovation Title
Truckzz

District
Gautam Buddha Nagar

State
Uttar Pradesh

Motivated by the lack of communication and trust between individuals and truck drivers, two students Disha Chauhan and Divya Agnihotri embarked on a project to bridge this gap. They noticed that existing solutions did not adequately address the need for secure and trustworthy connections in the trucking industry.

To tackle this issue, the students developed "TRUCKZZ," a platform designed to enhance communication between individuals and truck drivers. TRUCKZZ aims to fill the communication gap by providing a comprehensive and user-friendly interface where users can directly connect with truck drivers.

The Atal Tinkering Lab (ATL) at their school was instrumental in their project, offering the necessary resources and a supportive environment for innovation. With guidance from their mentor KK Shukla, they participated in the ATL Marathon, a competition that fosters student innovation across India.

The core idea behind this is to offer a platform that combines features from various other websites, ensuring users have access to all necessary functionalities in one place. This approach promotes transparency and trust, addressing a significant pain point in the industry.

The potential impact of Truckzz is substantial. By providing a single platform with clear transparency, users can directly communicate with truck drivers, improving efficiency and reliability in the trucking sector. The innovation aims to streamline operations for individuals and businesses that rely on trucking services, ultimately fostering a more connected and trustworthy environment.

The team is now focused on enhancing the platform's features to ensure it meets the needs of its users effectively. They plan to implement TRUCKZZ widely, hoping to revolutionise the way individuals and truck drivers interact. Their dedication and innovative approach highlight the power of technology to solve real-world problems and create meaningful change in the industry.

ATL UID	ATL In-Charge
2a2a9138	Anamika Jain
Name of The School	**Innovation Title**
Dav Public School, Sreshtha Vihar	B.a.l.p. (Bionic Arm Leg For Paralysed)
Name of The Team	**District**
Techgeeks	East Delhi
Team Members	**State**
Lakshya Vohra & Hrithik Khanna	Delhi

Motor disabilities limit mobility and independence due to inaccessible environments, lack of assistive technologies, and societal barriers. Recognizing this, students Lakshya Vohra and Hrithik Khanna, guided by ATL In Charge Anamika Jain, have initiated the Bionic Arm & Leg for Paralyzed (BALP) project.

BALP focuses on wearable prosthesis technology to help those with partial limb function, Parkinson's disease, limb injuries, paralysis, ageing-related issues, and industrial limb challenges. The goal is to replicate natural limb movements using AI, mechanical actuators, and wearable prosthetics.

This technology aims to restore independence and mobility, enhancing social lives by enabling participation in activities and reducing isolation. It also streamlines daily routines for easier navigation of environments.

On a broader scale, BALP challenges societal perceptions of disability and promotes inclusivity, breaking down participation barriers and fostering a more equitable society.

By advancing assistive technology, BALP inspires innovation and addresses societal challenges with compassion and creativity. This project reshapes the disability narrative, fostering empathy and paving the way for a more accessible future.

ATL UID
C5d66899

ATL In-Charge
Dipankar Pal

Name of The School
Lakshmipat Singhania Academy

Innovation Title
Park-At

Name of The Team
Park-At

District
Kolkata

Team Members
Divyesh Saraf,Suneeti Patwari And Vidisha Jain

State
West Bengal

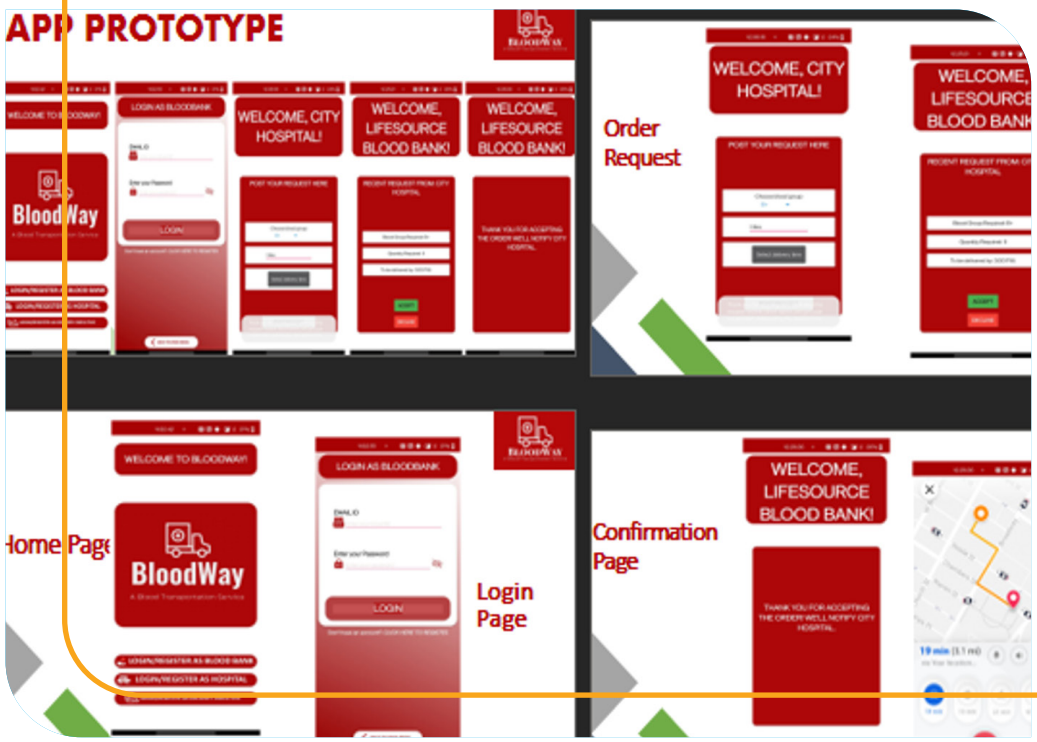
We, a group of Marvel fans, embarked on a cinematic outing one evening, eager to see the latest film on its opening day amidst high anticipation. However, our outing took an unexpected turn when we arrived at the mall and found no available parking spots. Despite our efforts to find a space, we ended up wasting precious time and fuel due to the lack of parking options.

This experience shed light on a widespread issue: the frustrating challenge of finding parking. Further research revealed that this pursuit annually wastes 6,026,400,000 litres of fuel and emits 13,342,400 tonnes of carbon. This realisation spurred students Divyesh Saraf, Suneeti Patwari, and Vidisha Jain, under the guidance of ATL In-Charge Dipankar Pal, to address this problem.

Our solution was to develop an app that shows users the nearest available parking spots in real-time. The app includes an admin dashboard for parking lot operators to monitor space availability. Each spot is equipped with a sensor that sends data to a NodeMCU, processed and published to HiveMQ, and displayed on the admin dashboard. The user app retrieves data from HiveMQ to show available spots.

In the future, we plan to integrate online payments within the app for seamless transactions. We will also refine our designs to improve user experience and operational efficiency. The app will feature a navigation map guiding users to the nearest parking lot via the shortest route, reducing travel time and optimising convenience.

Our initiative aims to conserve fuel, minimise pollution, and alleviate driver stress by streamlining parking searches. It will also enhance parking lot management with real-time data on space utilisation, improving efficiency. Overall, our project contributes to a cleaner environment, better urban mobility, and more effective resource management.



ATL UID
C5d66899

Name of The School
Lakshmipat Singhania Academy

Name of The Team
Bloodway

Team Members
Gaurav Poddar And Taraksh Garodia

ATL In-Charge
Dipankar Pal

Innovation Title
Bloodway

District
Kolkata

State
West Bengal

In India, the inefficient transportation of blood led to countless lost lives. Recognizing this, students Gaurav Poddar and Taraksh Garodia set out to revolutionise blood supply chains. They envisioned a real-time, automated nationwide blood database to ensure swift, efficient blood transportation.

Their scalable online business model aimed to streamline blood inventory management across India and beyond, meeting the annual need for 15 million units sustainably. The core of their solution was Real-Time Automated Systems, providing up-to-date information on blood availability and operating on a commission-based model.

Key to their success were Technology and Partnerships. They used mapping technology to connect hospitals with nearby blood supplies, ensuring quick delivery through local drivers, drones, and bikers. Their user-friendly app and innovative drone systems, along with specialised storage and transport boxes, set new industry standards.

Supported by their ATL in-charge, Dipankar Pal, Gaurav and Taraksh's journey is marked by determination and innovation. Their efforts in developing a real-time blood database, leveraging technology, and fostering partnerships are saving countless lives and setting a new healthcare benchmark.

Kendriya Vidyalaya
CRPF Avadi

NOTES

Designed by:

सत्यमेव जयते
NITI Aayog

ATAL INNOVATION MISSION