

The official newsletter of Technology Entrepreneurship Programme



TRENDS TO WATCH IN INDIA'S GROWING 'STARTUP SPACE'

When should you start up to make it a definite that Amazon has recently come up with Amazon success? Should you wait for that one opportunity or keep a vigilant eye on the trends in partners who want to earn money (INR 120-140 per the startup space? Well, truth be told, it's actually hour) in their free time servicing last mile deliveries. none of them and then again all of them as the secret lies in the perfect balance. Trend-watching can throw up new ideas and often helps us validate our decisions and business models. In this article, we throw light on three (3) promising trends in the Indian startup space.

1. Last mile

One of the biggest challenges of servicing a large country such as India is reaching the notorious "last mile" and we choose logistics as a reference point. 70% of the last mile logistics sector is made up of small vendors and driver-cum-owners. This unorganized afflicted logistical market is by inefficiencies keeping the average utilization of the transportation)etc., are competing for this space. ecosystem at a lowly 35%. The problem is so acute

big Flex - an innovative offering for part time delivery

Examples such as Rivido (have revolutionized the logistics industry by leveraging next-gen tech. Fondly called the "Uber of the trucking business". Rivigo uses a smartphone app to manage deliveries reliably and with transparency. Delivery from the transport hub to the shipment's final destination has become one of the major focus points for logistics companies as more and more people head online to buy their goods. Quick door delivery is no longer a preference, it is a customer expectation. A clutch of last mile delivery companies like Starship(robots delivering anytime anywhere), and Nuro (Selfdriving vehicle made for local goods

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Mailto: tepadmin@tep.isb.edu. Ph.: 040 2318 7842

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TRENDS TO WATCH IN INDIA'S GROWING 'STARTUP SPACE' (CONT.)

Delivery efficiency in the future will be driven by the use of Drones and AGVs (Autonomous Ground Vehicles). Al uses algorithms to compute variables like traffic, driver availability, delivery windows etc. to reduce delivery times and fuel costs. UPS has a transport management system that helps them save 10 Million gallons of fuel annually by directing drivers on optimum routes. A lot can be done to organize Last Mile logistics in India and the trend suggests that technology enabled platforms will continue to simplify services and enhance efficiencies.

2. Electric Mobility

In the 1900s, electric car production dwindled when Henry Ford came up with the mass produced gasoline car. A century later, as our planet grapples with greenhouse gases and emission norms, the Electric Vehicle is back! Led by the Toyota Prius and popularized by Leon Musk's Tesla, almost all leading car makers are turning towards battery operated vehicles. More recently, it is no secret that Apple has been working on an EV (Electric Vehicle) program code-named TITAN.

Back home, the Indian government is planning to mandate cab-hailing companies like Ola and Umber to "convert 40 percent of their fleet" of vehicles to electric by April 2026.India's National Electric Mobility Mission Plan (NEMMP) will have a positive impact on energy security, pollution control and growth of vehicle manufacturing. The Government of India has plans to make a major shift to electric vehicles by 2030. Companies like <u>ATHER Energy</u>, REVA and OLA have taken the first steps towards battery powered vehicles. Unlike premium segment cars like TESLA, India is focusing on electric conversions in the 2 and 3 wheeler market covering two thirds of vehicular traffic on Indian roads. This could be a turning point with the potential of making India a global leader on the EV map.

3. 'Voice' gets louder

A report by BBC estimates that only 10 percent of the Indian population (approximately 125 million) can read, write and speak English. This implies that language is a hurdle for 90 percent of India's large population trying to access the internet. The increasing use of translators and voice search create a powerful tool that trounces the language barrier. Voice assistants equipped with artificial intelligence (AI) will become standard in mobile phones this year. Business websites are already thinking of introducing voice search as a step beyond catboats. Imagine speaking to an eCommerce site in your mother tongue and searching for products. This would bridge the digital divide and open up online shopping and other services to the non-English speaking populace. Voice interfaces and assistants like Alexa and Google Assistant have given consumers a peep into the possibilities in every sector including banking, healthcare and education. The introduction of regional language translators can create a huge impact driving exponential growth in internet access.

Catching the wave

Whether its last mile, electric vehicles or voice assistants, technology and innovation are revolutionizing the way we do things. A large and growing economy like India is fast catching on to this digital wave. We believe that technology entrepreneurs have an unprecedented opportunity of riding this surge and finding their place in the sun. In our next issue, we will be covering a few other exciting trends that are making waves. Watch this space !

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TEP 2017-19: TOP FIVE TEAMS

(On the basis of solution proposed, fabrication techniques, materials used for prototyping and overall their journey so far)



From left to right: Siri Vodela (Urbanites), Ruchita Reddy (Urbanites), Rakesh Munnanooru (CEO & Founder, Whistle Drive - Panelist), Kamini Gupta (CEO, EdgeFX Technologies - Panelist), Rizwana Shaik (Urbanites), and Amrithaa Goud (Urbanites)

Theme: Smart Cities

Problem/Opportunity: "Difficulty in washing clothes manually using conventional brush leads to arm pain/discomfort over time

Removal of stains requires more pressure and longer time"

Solution: "An affordable, mechanized (Automatic) brush designed for easy washing of clothes which reduces effort and saves time"

Team: Urbanites

College: Mahindra Ecole Centrale

Product Name: EEASY, Let's go easy



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TEP 2017-19: TOP FIVE TEAMS

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From left to right: Sahithi Amudalapalli (Techie Tribe), Vasudha Sriperumbeduru (Techie Tribe), Rakesh Munnanooru (CEO & Founder, Whistle Drive - Panelist), Kamini Gupta (CEO, EdgeFX Technologies - Panelist), Pasupuleti Pavani (Techie Tribe), and Jahnavi S V L S (Techie Tribe)

Theme: Smart Cities

Problem/Opportunity: "Misplacing objects of daily use in house and wasting a lot of time and energy to spot them. Especially elderly people tend to forget things a lot"

Solution: "Object finder modules which can be attached/mounted on the household that one keeps forgetting or misplacing. A button press on a permanently installed remote can help the person locate the misplaced object. No dependency on smartphone, internet or any other advanced technology."

Team: Techie Tribe

College: Sreenidhi Institute of Science & Technology

Product Name: RAPPEL, Forget the forgetfulness



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TEP 2017-19: TOP FIVE TEAMS

(On the basis of solution proposed, fabrication techniques, materials used for prototyping and overall their journey so far)



From left to right: Venkata Lakshmi Kalyani (Tech Cocoa), Pujari Ramu (Tech Cocoa), Srini Chandupatla (Start-up evangelist, serial entrepreneur and an angel investor - Panelist), and Jitendra Emmani (CEO & Co-founder, Picxy.com - Panelist)

Theme: Agri-Tech

Problem/Opportunity: "Manual harvesting of cocoa fruits is labour intensive and time taking

Automated harvesters are very expensive"

Solution: "Pedal operated cocoa extractor is a low cost harvester targeted at small and medium scale farmers with a semi-elliptical blade to vertically cut the fruits, followed by a cylindrical mesh to separate the seeds from the shells using tumbling action "

Team: **Tech Cocoa**

College: Sasi Institute of Technology & Engineering

Product Name: PEDAL OPERATED COCOA EXTRACTOR



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TEP 2017-19: TOP FIVE TEAMS

(On the basis of solution proposed, fabrication techniques, materials used for prototyping and overall their journey so far)



From left to right: Jagadeesh Kaki (Brain Trust), Shaik Sohail (Brain Trust), Srini Chandupatla (Start-up evangelist, serial entrepreneur and an angel investor - Panelist), Jitendra Emmani (CEO & Co-founder, Picxy.com, - Panelist), Mandala Eswariah (Brain Trust), and Gangadharappagari Manjunath (Brain Trust)

Theme: Smart Cities

Problem/Opportunity: "Visually impaired people struggle to navigate in everyday settings even though they have aid to support. They don't like the sympathy offered by people once they get identified as visually impaired. They want to be acknowledged as normal people."

Solution: "Navigator sole is a standalone wearable technology which offers safer navigation and allows user to walk more confidently in public places. It merges into their daily footwear and doesn't stand out. It is affordable and has no dependency on internet and smartphones. "

Team: Brain Trust

College: Ananthalakshmi Institute of Technology & Sciences

Product Name: NAVIGATOR SOLE



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TEP 2017-19: TOP FIVE TEAMS

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From left to right: Achyuth Potlapally (Brainy Fools), Puneeth Reddy (Brainy Fools), Rakesh Munnanooru (CEO & Founder, Whistle Drive - Panelist), Kamini Gupta (CEO, EdgeFX Technologies - Panelist), Praveka Surapaneni (Brainy Fools), and Anas Abdul Khader (Brainy Fools)

Theme: Smart Cities

Problem/Opportunity: "Discomfort in riding two wheelers faced by women due to height and clothing

Balancing of two wheelers for a long while causes fatigue for senior citizens"

Solution: "Discreet support wheels with suspension for two wheelers that eliminate the need for balancing, reduce rider fatigue and prevent falling"

Team: Brainy Fools

College: Chaitanya Bharathi Institute of Technology

Product Name: EZERIDE, Balancing your rides



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TEP 2017-19: TOP STUDENTS

(On the basis of year 2 scores)



Pujari Ramu College: Sasi Institute of Technology & Engineering State: Andhra Pradesh

Andhra Pradesh



Jagadeesh Kaki College: Ananthalakshmi Institute of Technology & Science State: Andhra Pradesh



Ishan Rai College: BITS Pilani-Hyderabad State: Telangana

Telangana



Rahul Vijaywargiya College: BITS Pilani-Hyderabad State: Telangana



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KNOW YOUR SPOCs

Andhra Pradesh



Leonard J Lambert College: Vasireddy Venkatadri Institute of Technology

Mr. Leonard J Lambert, Asst. Professor at VVIT, Guntur comes with 8 years of experience in Recruitment, Training and Education. Personally, he takes immense interest to be in constant touch with the TEP students' progress and motivates them to be a successful budding entrepreneur.

He is extremely passionate about the ISB-TEP programme, as it gives him an opportunity to be a part of the ISB engagement with different stakeholders. The continuous engagement/interaction with the world's finest faculty at ISB motivates him to explore newer methodologies in learning modules for the engineering students and pave their way to be a successful entrepreneur. Leonard believes in "Finding answers to hidden problems - Entrepreneurs are the ones who work on finding creative and innovative solutions to a particular problem existing in our daily life, which in turn gives birth to a new organization."

Telangana

Mr. Prabhu Kishore from MLR Institute of Technology, a certified faculty with 12 years experience and an active learning mentor, has given him a platform to mentor 180+ students under his guidance and takes pride in empowering students by being an integral part of the "Ideation Day' with ISB.

He expressed that the unconditional support from the Honorable Secretary Mr. Raja Sekhar Reddy and the continuous support from the ISB-TEP team keeps him motivated and helps to nurture the students towards entrepreneurship. He feels that imbibing entrepreneurial traits in the students through various modules of TEP has helped the students to develop their critical and innovative thinking process. The programme has, in turn, created an opportunity for budding engineers to think out of the box and develop projects useful for the society. He also finds passion in teaching, music, and sports.



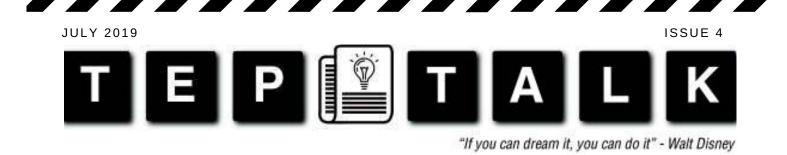
Prabhu Kishore College: M L R Institute of Technology



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HIGHLIGHTS

TEP 2017-19: Graduation Ceremony

On July 2nd, 2019, ISB celebrated the students of TEP batch 2017-19 through a graduation ceremony which witnessed 330 students graduating from this single batch. The event also had the top five (5) student teams across the two states presenting their final prototype and business idea to an esteemed set of panelists. There were 124 graduates from AP and 206 graduates from Telangana. Out of the top five teams, 2 (Sasi Institute of Technology & Engineering and Ananthalakshmi Institute of Technology and Sciences) from AP and 3 teams were from Telangana (Mahindra Ecole Centrale, Chaitanya Bharathi Institute of Technology and Sreenidhi Institute of Science and Technology). The ideas were featured from agritech solutions (such as cocoa cutting simplification) to smart cities (such as smart brushes for cleaning clothes and automobile driving enhancement). The event ended in a high team with the students demonstrating their functional prototypes to a packed audience which had members from industry, academia and students.

Gracing this occasion, the event had Mr. Shrikant Sinha (CEO of TASK), Dr. Sailaja (Officer on Special Duty, TASK), Dr. Radhakrishna (Officer on Special Duty, APITA), Professor Bhagwan Chowdhry (Professor of Finance, ISB), Professor Anand Nandkumar (Associate Professor, Strategy and Entrepreneurship, ISB) and Amrita Dutta (Associate Director, CIE, ISB). The panelists evaluating the top teams were Mr. Jitendra Emmani (CEO & Co-founder, Picxy.com), Ms. Kamini Gupta (CEO, EdgeFX Technologies), Mr. Rakesh Munnanooru (CEO & Founder, Whistle Drive), Mr. Srini Chandupatla (Startup evangelist, serial entrepreneur and an angel investor).







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