creative INDIA

सत्यमेव जयते

TECHNOPRENEUR PROMOTION PROGRAMME(TePP)

Department of Scientific and Industrial Research

Ministry of Science and Technology

New Delhi, Vol. V, 2010

creative INDIA

TECHNOPRENEUR PROMOTION PROGRAMME (TePP)

DEPARTMENT OF SCIENTIFIC & INDUSTRIAL RESEARCH

Ministry of Science and Technology

New Delhi, Vol. V, 2010

प्रो. समीर के. ब्रह्मचारी
सचिव, वै.औ.अ.वि.एवं महानिदेशक, वै.औ.अ.प
Prof. Samir K. Brahmachari
Secretary, DSIR & DG, CSIR

भारत सरकार
वैज्ञानिक तथा औद्योगिक अनुसंधान विभाग
विज्ञान और प्रौद्योगिकी मंत्रालय
टेक्नोलॉजी भवन, नया महरोली रोड, नई दिल्ली-110016
Government of India
Department of Scientific & Industrial Research
Ministry of Science and Technology
Technology Bhawan, New Mehrauli Road, New Delhi-110016

MESSAGE

It gives me immense pleasure that TePP is bringing out **Creative India 2010** to highlight the innovative potential of individual innovators.

Technopreneur Promotion Program (TePP) of my department is a dynamic program to promote inventiveness and creative spirit amongst common people, by giving grants-in-aid support for converting their ideas into techno-economically viable products/processes. The program endeavours to create an innovation eco-system for better prosperity and creation of employment opportunities among masses.

A number of Outreach Centers help individual innovators across the country and provide guidance and mentoring support in realizing their dreams. I take this opportunity to reaffirm my faith that entrepreneurial spirit, risk taking capacity and innovativeness can foster a new paradigm of development. The efforts of small innovators will go a long way in making India prosper.

[Samir K Brahmachari]

New Delhi

April 15, 2010

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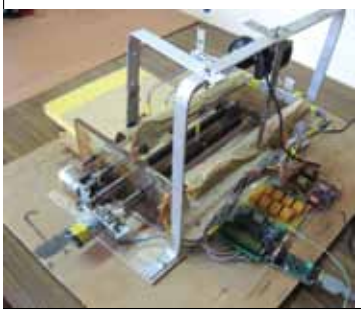

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PREFACE

Department of Scientific & Industrial Research (DSIR)

Technopreneur Promotion Programme(TePP)

Inventions normally take a long time to develop into their modern forms. An invention is a step on the road to the ultimate goal. For example, the development of the bullock cart from the potter's wheel took around 700 years, which later paved the way for development of all modes of transport. Similarly, the invention of Jacquard's loom in the early 18th century enabled the automation process in the calculating machine, which subsequently became a major foundation for the growth of Computers in modern time. Or more specifically, an invention is basically a new form, composition of matter, device or a process. It may be based on pre-existing forms, compositions, processes or ideas. Some times, there may be radical breakthroughs, which may extend the boundaries of human knowledge or experience. Invention is the first occurrence of an idea for a new product or process, while innovation is the first attempt to modify it for betterment. Therefore, innovation today is not invention. It's about taking the product, putting in a new process, thinking around it and marketing it. Innovation is about working on practical utilitarian features that enhance the product. It could be incremental improvement in a product or it may be a service innovation (creative new product idea that does not alter established business models), strategic innovation (the process of re-inventing strategies) and innovation requiring different managerial approaches. The person who does the innovation is called an innovator.

The National Knowledge Commission (NKC) (2007) has also identified the role of innovation as one of the key factors in India's economic growth. NKC considers innovation as a significant factor in facilitating competitiveness, improvement in market share and quality as well as reduction in costs.

The strategic prioritization of innovation as a factor critical to growth and competitiveness has also achieved significant prominence since the start of economic liberalization in India. NKC has recommended a comprehensive campaign to address these issues and to spur efforts to make India a global leader in innovation.

Technopreneur Promotion Programme (TePP) of Department of Scientific & Industrial Research (DSIR) is one of the largest network programme to nurture individual innovators. It is a programme, which is working towards creating a culture and mindset of innovation in the country. Eventually ideas emerge from free flowing minds and thoughts. And then the task is to channel and control them in an effective manner. TePP is trying to create an eco-system to spur the innovation movement in India to develop a new breed of innovators with the help of its network partners viz. TePP Outreach Centres. TePP Outreach Centres are having spread and presence in almost every part of the country. The details of TePP can be seen on *www.dsir.gov.in* . The current volume of CREATIVE INDIA – which has details on some of the fascinating ideas of young and bright innovators, is 5th in the series brought out by DSIR to share the innovation journey of these unsung heroes with the outside world. TePP Outreach Centre at Technopark, Trivandrum has taken deep interest in publishing the current issue with the support of DSIR. The department has great appreciation for Team-Technopark along with the innovators. The department also conveys its gratitude towards all the contributors for bringing this issue.

It is hoped that these small efforts of TePP will create a new breed of dynamic and budding innovators in years to come to make India – Most Innovative Country of the World.

R.R. Abhyankar



THE INNOVATORS







When the waves of creativity come in par with intelligence, there emerges the most unpredictable product- an innovation. The innovations are the stepping stones which pave the way to the development of the country, which rightly explains the significance of them.

It doesn't require luxurious ambience, a family business lineage and strong financial background to come out with an innovation. A pure creative mind with an urge to come out with something different to bring out change in the world; can make one create amazing wonders. Creative India brings out such great thinkers before you who came out of the normal framework and thought out of the box; who took the path less traveled and came out as winners.

It throws light over the real masters of the country, who are like diamonds lying in the debris of the rocks and rarely get noticed to the level they deserve. Creative India is a perfect platform which recognizes their creativity and gives them the deserving exposure. It makes their innovations and India's potential known to the world.

Leaving their cosy lives and stepping into the journey of innovation needs guts. The capital and experience later comes on the way after an innovator takes the courage to step out. Having such creative minds, the right exposure is what is needed for them.

When you have an idea, just have the courage to express it and there is the birth of an extraordinary journey. It requires boundless creativity to think out of the way and great patience to pursue an idea.

But once an innovator is on his way, nobody can stop him from creating wonders. Innovation is the mother of evolution and the entire evolution of a country depends on such wonderful innovations and strong innovators, who act like a firm backbone to the development of a nation.

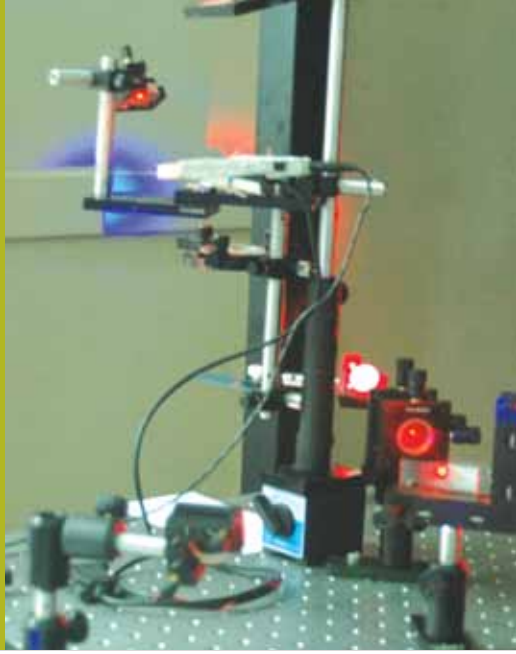



An ignited mind is the most powerful resource on earth, above the earth and under the earth.

-A P J Abdul Kalam
Former president and former aeronautical engineer with DRDO and ISRO




DNA Fingerprint Holographic ID Card



DR. MAYA DEVI. C
Scientist
Light Logics Holography and Optics Pvt. Ltd, Technopark Technology Business Incubator, Technopark, Trivandrum-695 581, Kerala. Phone 0471-2527282, Mob:09388268386
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MY INNOVATION

Our work focuses on the development of a DNA fingerprint holographic ID card for personal authentication. The idea here is to encode a laser beam with the DNA fingerprint data of a person and to record the data as a Photopolymer DNA Fingerprint Hologram (DFH).

IMPACT OF SOCIETY

The proposed system is having an immense importance in new-generation passports, immigration, and the global fight against terrorism. It can be used for providing security to institutions,banks, airports defense departments etc. With counterfeiting emerging as a major problem in the city, such new systems are the need of the hour.

THE SPARK

I was bitten by the entrepreneurial bug when my husband introduced me to an eminent Holography scientist and entrepreneur, Dr. P.T. Ajith Kumar. He had a special flare for applied research, and he is one among the few Indian scientists who boldly entered into entrepreneurship after several years of government service. My discussions with him convinced me about the importance of DNA fingerprint based holographic devices and this prompted me to venture into the related business.

YOUR ENTREPRENEURIAL JOURNEY

I was awarded Ph.D in Biochemistry in 1996 and did my Postdoctoral fellowship in Biotechnology at the Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum. I did my PDF there with an ambition to join there as a scientist. But due to various reasons I did not succeed in it. However, I functioned as a guest lecturer in various institutions. But, my passion was in Biology and related developments. It was at this juncture that I met Dr. Ajith Kumar of Light Logics Holography and Optics and this helped me to kick start my entrepreneurial voyage.

ASSOCIATION WITH TePP

The ISBA2008 Conference held at Technopark fuelled my dreams to boldly proceed ahead as an entrepreneur. During the Technopreneur 2008 meeting held at Kochi, I explained our project to the TBI officials. My meeting with Smt. Sheila Sangwan, IRS (Joint Secretary and Financial Advisor DSIR and CSIR) really helped to build confidence.
All these meetings and discussions helped me to smash the shell of isolation from my professional career that covered my ambitions for the last seven years, as a women scientist. Financial support from DSIR is a real patting on the back and a helping hand to our project.

PATENT STATUS

The application for patent was filed by Light Logics even before kick starting the present activities. Patent awarding is pending.

FUTURE PLANS

I believe that India is a goldmine of opportunities and hence our success probability for serious entrepreneurs is higher here. But, when we love to make products of global relevance, the challenge becomes tougher and painful, especially for an Indian women entrepreneur. In this context, my partnering with Light Logics has helped me a lot. My future plan is to associate with Light Logics and move ahead with a full-fledged commercialization of the product and explore better applications.

WORD OF ADVICE

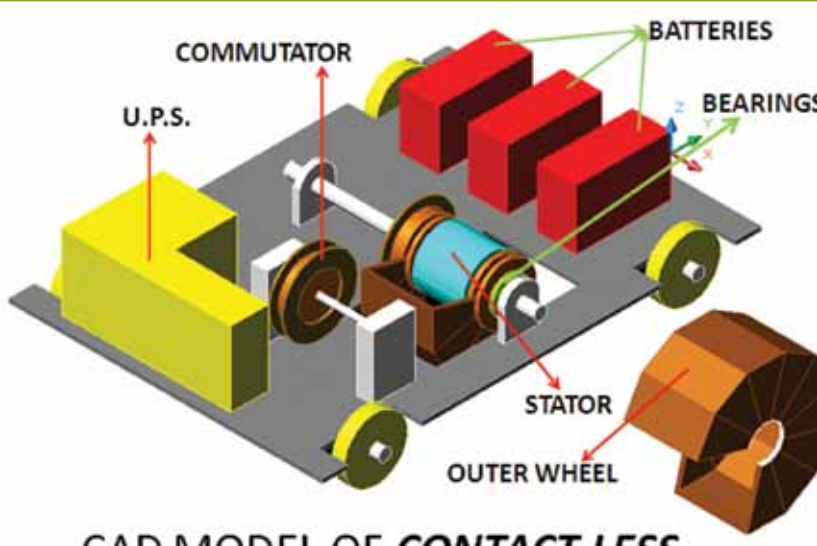
In your venture you may encounter failures, but never take it to heart. From each failure we are learning, they are the stepping stones towards success. If you have the determination that the sky is your limit, and if you show the endurance to stand up, then success will surely come to you.

INNOVATION PHILOSOPHY

Innovation should always bring global peace and harmony.

Contact Less Power Transmission Hub Motor

MR ROHIT AHUJA
1359 A Maruti Vihar Chakkarpur, Gurgaon Haryana -122002
Mob No: +19595590962
Contact no. 0124 2355664 (Home)



CAD MODEL OF ***CONTACT LESS POWER TRANSMISSION*** PROTOTYPE

MY INNOVATION

Contact less power transmission is a new hub motor that has to be designed to work partially on the principle of a DC motor, stepper motor and linear induction motor. Major part of the machine is taken from the contact less power transmission technology of the maglev train. It has to be designed considering the requirements of the ordinary automobile and feasibility has been studied.
This project aims at developing a highly efficient power transmission. The mode of transmitting the power will eliminate all the mechanical contacts. The transmission of power will be purely contact less i.e. no friction at all between the hub and the tire.

IMPACT ON SOCIETY

The benefit of this kind of technology is that it will reduce friction and electrically controlled power transmission. The machine will offer more variable speed while being eco-friendly. It has more fuel mileage and market potential. The future aspects of this kind of technology will be and can be used for battery operated vehicles. The potential with magnetic suspension has to be analyzed, further the contact less steering and regenerative breaking can also be applied. The variable camber can also be taken into account. With such great advantages, the machine is very useful for the society.

THE SPARK

Four years back, the performance of maglev trains influenced me a lot. Right from that stage, I am studying about it and researching on the performance. With constant efforts, I am trying to make a design that can produce the same effects in road vehicle too.

YOUR ENTREPRENEURIAL JOURNEY

My journey has just started with couple of achievements in several educational institutions. Developing on the idea, I am slowly progressing on the way ahead to attain my dream. With model making and presentations, my journey is still in the starting phase.
Now I am in a position to forecast how my product will look like and how it can be built. Further, I aim to give an Indian master piece to the World Automobile Society.
For this, I want to develop a product that can beat the world class standards and technology by delivering performance, speed and efficiency.

ASSOCIATION WITH TePP

TePP helped me in taking my first step towards the industrial design and forcasting how my product will look like. It made me realize my dream and to give platform to my vague dreams.
The support offered by them is really great as it helped me achieve confidence and develop on my plans to make it practical. With the help of TePP only, I will be able to build my first prototype.

RECOGNITION/AWARD

1) First prize in paper presentation Department of Physics - IIT Roorkee (Cognizance 2009)
2) Awarded Appreciation Prize from Uttrakhand State Council of Science and Technology in model making.

PATENT STATUS

Not patented yet.

FUTURE PLANS

To build a full vehicle to analyze the over all effect of the mechanism. To make the mechanism known to all and to make it a huge success.

Pollution Free Technology for Starch Processing Plants

MR. NATARAJAN RAYAR
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MY INNOVATION

One of the largest food processing industry, the tapioca and potato starch processing industry generates large amount of solid waste and waste water with high organic content, which results in heavy water pollution. This project explores the capability of clean technology options to stop the environmental pollution of tapioca starch-processing plants.

IMPACT ON SOCIETY

The product meets the new pollution laws and has no discharge of polluted effluents. It lowers the operating cost as it requires no water input and consumes only 1/3 power of existing plants. The processing time is reduced to ½ of existing plants.

THE SPARK

My interest in machine building activity dates to 1996. I found the novelty in the grinding principles. After making some survey, the use of wet grinding operation in the starch industry came to my notice. Existing plant machineries were acquiring huge quantities of water for processing. Thinking on these aspects made me attempt to grind tapioca tuber in wet condition, and surprisingly the results were good and fantastic.

YOUR ENTREPRENEURIAL JOURNEY

After graduating in BE Mech Engg from A.C.C.E.T at Karaikudi, Tamil Nadu in 1993, I planned to start my own R&D based industry in my birth place itself. The aim was to provide services in the poverty dominated area. The most difficult task was the need of investment. With the local banks refusing to grant loan, I had to sell a property and invest in the startup company in 2004. With 15 years of distinguished research activity, I could achieve a self-financed R&D based industry.

ASSOCIATION WITH TePP

The TePP and the TREC STEP were the motivational sprit behind the successful launch of my innovative product.

RECOGNITIONS/AWARD

The DST(INDIA)-Lockheed Martin Corporation (USA) award for the technology behind World First Water Pollution Free Starch/ Sago Plant.

PATENT STATUS

The innovation got a process patent in India in 2006. The registration no.196297. International provisional patent has also been filed, Application No.1338/CHE/2009.

Insulin Inhaler

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044 - 2454 0038 / 7215 / 7216

MY INNOVATION

I have invented a new insulin inhaler. Usually, insulin is given by injection to the patients, which results in people keeping off from taking the medicine regularly. Keeping this problem in mind, I thought to come up with this new inhaler through which one can inhale insulin easily. The inhaler has a mouth piece on one side, insulin port on opposite side, a propellant can as in asthma inhalers on top. Insulin is loaded inside and the mouth piece is kept in the mouth. As it is inhaled, the propellant can is pressed to spray insulin into the lungs.

IMPACT ON SOCIETY

Injections are always considered as a strict no-no for people. No one willingly would accept having an injection. This innovation is an alternative to injections.

THE SPARK

When my relatives complained of pain and poor controls with the use of injection, I thought of coming up with a solution for them. In case of asthmatics, they have complete relief with such inhalers. The lungs have better blood supply than skin and there is no destruction in the lungs. So, I thought to adopt the same for insulin as well.

YOUR ENTREPRENUERIAL JOURNEY

When such an idea came up, I approached TePP program, and TBI Madras readily offered help. Those were days of Pfizer inventing Exubra inhaler. Pfizer later discontinued the inhaler as it had poor inhaling techniques. So I thought of why not improving on this.
Exubera is the first of the inhaled insulin to be released. Similar to other inhaled insulins, a number of side effects have been reported. These include coughing, shortness of breath, sore throat and dry mouth. Exubera is not approved for smokers or anyone who has smoked in the last six months because almost twice as much of the inhaled insulin can enter the bloodstream and increase the possibility of an overdose. It also cannot be used for anyone with a lung disorder or chronic obstructive pulmonary disease.

In the case of my spray, it eases the inhaling process. Small, easy to inhale long, deep, there cannot be any lung deposit. I am waiting for 2nd phase of testing. In phase 1, it had proved that the new inhaler can produce active insulin spray that can decrease blood sugar in rats.

ASSOCIATION WITH TePP

TePP is a pioneer helper for new ideas, and is useful to the nation. Once I approached them there was no delay in providing help. This being a medical R&D it takes years to usually solve a problem, but here it helped me a lot.

AWARD/ RECOGNITION

Will apply for the same after completion for this. I am also an awardee of the IGNITE, IIM 2008 for another product.

PATENT STATUS

Have applied for patent.

FUTURE PLANS

I wish to commercialise the product and sell it in the market.

WORD OF ADVICE

Use open sources like TBI, TePP. We need to solve India's problems as western solutions will be inappropriate.

INNOVATION PHILOSOPHY

Think about unsolved problems, you can come up with lots of inventions; and to profit them you must tap in time.

Muga Reeling Machine

MR MONUJ KR. GOGOI
Betbari Bhadhara Nigam,
P.O.- Bhadhara, Sivasagar,
Assam, PIN-785640

MY INNOVATION

While twisting Muga cocoons, only one twist is availed per twist. So it takes a lot of time for the cocoons for preparing longitudinal (vertical) and transverse (horizontal) threads as separate mechanism is applied for the same. This machine is developed for saving time to increase the production of Muga threads. It can produce both types of threads (Vertical & Horizontal) simultaneously. As Muga clothes provide livelihood for some people of Assam, it is necessary to increase its production rate. This machine is designed keeping into account this purpose. It can produce more and more threads based on the number of Muga cocoons that too at reduced cost.

IMPACT ON SOCIETY

One of the most important factor which controls the quality of Muga threads is the proper twisting of individual threads coming from each cocoon. The present device has a unique mechanism to achieve the twisting through the rubber/ plastic rollers whose movements are further controlled by a gear-train mechanism. The gears obtain the power from the muscle power via chain drive. The muscle power can be replaced by a suitably selected clutched motor. Therefore, it will reduce the labour of the workers. Overall, the machine not only increases the efficiency but also reduces the effort.

THE SPARK

Muga silk is an indigenous tradition in the upper Assam region of the state of Assam and it is available only in this part of the world. Separating the yarn from the cocoons is a typical process and some special consideration in the machineries is required. But at present the available machines do not fulfill all such criterions to produce quality threads while being an affordable cost for the rural people at the same time. Having a Muga farm on my own made me realize the pain of the people. It made me think on the solutions for the problems faced during the threading process. Thinking on the solutions, I came up with this idea.

YOUR ENTREPRENEURIAL JOURNEY

As the innovative idea was already in his mind, the TePP advertisement of the TUC-NEIST came as a boon at the time. I developed on my idea and came up with my innovation. After working hard on the thoughts to solve the problem, the machine was finally designed. After the development of the machine, a prototype for demonstration was put forward before the experts at the TUC.

ASSOCIATION WITH TePP

The association with TePP was really helpful in many ways. Scanning through newspapers made me come to know about the TePP advertisement of TUC-NEIST. It helped me in realizing my dream and made me make my innovation practical. The TUC really helped me a lot both financially and morally.

PATENT STATUS

Have not filed the application yet.

FUTURE PLANS

I want the Central Govt. Department (viz. Central Muga Eri Research and Training Institute, Lahdoigarh, Jorhat, Assam) and some private sector units to be concerned in this regard. The machine should reach the masses so that their problems are solved. Everyone should understand the need of machines and its benefits.

Solar Powered DC/brushless DC Motor

MR. SAMIR KUMAR NEOGI
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Kolkata-700149, West Bengal,
Telephone No. (033)2477-8910/4335,
Mob.No. 9830705545, Fax. No.
(033)2477-9320.
E-mail: tsp@cal3.vsnl.net.in

MY INNOVATION

The Solar powered DC/brushless DC motor operated low cost kerosene dispensing unit with biometric/ bar code based access control for PDS comprises a housing, a solar powered pump unit driven by a conventional or brushless DC motor, an electronic register unit with facility for seamless integration of biometric or bar coded based access control, a solenoid valve, a metering unit and a flexible hose with delivery nozzle. The unit is proposed as a static device accommodated in normal PDS outlets which is energized through a solar array at a housed suitable location near to the PDS outlet. The standard accessories comprise a battery bank that is charged by the solar array. The pumping unit, driven by a brushless DC motor has an in-built pressure relief valve. The delivery line is fitted with dispensing nozzle for easy handling of delivery system.

IMPACT ON SOCIETY

The innovated system is a novel, low cost, energy efficient automated kerosene dispensing terminal. The envisaged dispensing system is customer-interactive, automated and has the capability to authenticate, record and dispense kerosene as per quota allotted to the consumers without any manual intervention.

THE SPARK

The idea for the product owes its genesis to my long experience in manufacturing and repair/maintenance/installation of dispensing liquid fuel pumps.

YOUR ENTREPRENEURIAL JOURNEY

An Arts graduate from University of Calcutta, I joined my family business in the year 1971 for the repairing, servicing and installation of fuel dispensing pumps as well as manufacturing of spare parts. I could make the company gain many prestigious accolades. Recently I founded a new company, M/s Dhruba Green Energy with a view to concentrate on the development of more innovative products using indigenous skill, technology and concentrate on utilization of non-conventional/green energy sources.

ASSOCIATION WITH TePP

My association with the TUC dates back since I was working with this group for development of different intelligent dispensing devices. It was through this group that I received the invitation to take part in the Innovator's Meet organized by TUC-CMERI, Durgapur in March 2009. The device I had innovated impressed many scientists. Eventually, TUC-CMERI came forward and offered support.

AWARD/ RECOGNITION

My company won the FOSMI Award of Excellence in 2001, the CII Eastern region TQM award for small scale enterprises throughout the period 2003-2006, and the AIMA-Dr J S Juneja award for creativity and innovation in Small & Medium industries – 2006, though I am yet to submit this specific innovation for any award.

FUTURE PLANS

Design refinement, development, production and marketing of the seeding device as a standard fixture of any fair price shop dispensing kerosene oil. I also have plans for devising a mobile variant for extended distribution.

WORD OF ADVICE

Never feel shy to propose even that which appears impossible at the surface.

YOUR INNOVATION PHILOSOPHY

There is no limit to innovation

Development of Extendable Width Cultivator

MR. RAJENDRA KUMAWAT
Tikkiwalo Ka Mohalla Old Tonk
Tonk (Distt. Tonk)-304001
Rajasthan, India
Phone: 01342-243008, 09143603308

MY INNOVATION

The innovation is the development of extendable width cultivator.The innovation relates to the designing and development of a new type of cultivator. Present cultivators are having two horizontal springs per tyre but in this new design each tyre is supported with single vertical suspension spring. This will reduce the cost of maintenance and fabrication. With the increased availability of higher horse power tractors most of the farmers are switching over to new tractors. In order for the proper utilization of tractor power a farmer is required to purchase new matching implement (increased width). The invention of the extendable width of the cultivator will avoid this. A farmer can extend the width of his cultivator simply by adding the additional tyres and a base unit of cultivator (9 tyre cultivator) can be increased to 11 or 13 tyres cultivator.

IMPACT ON SOCIETY

It will avoid the purchase of a new matching cultivator, when a farmer purchases a new higher HP tractor. Thus, saving the overhead expenses with better efficiency and coverage area.

THE SPARK

I am having my own workshop and was engaged in repair of agricultural equipments from my childhood itself. This idea came to me when I was changing the spring of a traditional cultivator.

YOUR ENTREPRENEURIAL JOURNEY

After conceiving the idea, the development of it needed more effort. Initially I just had a small workshop but now with time I have developed it into a better workshop. It is equipped with all essential machines and I am manufacturing agricultural equipments. Developing on the idea has made me step into full fledged development of machines. I am also selling the equipments manufactured by other manufacturers in Jaipur division now.

ASSOCIATION WITH TePP

I was having only a raw idea with me. After seeing the advertisement in the news paper I went to TUC Udaipur and discussed with Dr. S.M.Mathur, Coordinator of TUC Udaipur. He encouraged me and gave me technical guidance as he is an Agricultural Engineer. He helped me in formulation of the proposal.

PATENT STATUS

The design patent has been granted and development patent has been filed through TUC Udaipur. Design no. 215639 dated March 31,2008

FUTURE PLANS

To make it popular among the farmer community and sell more units all over India. The problems of the farmer should be solved to a great extent. I want to commercialize the product and make it reach the end users. The common people should utilize the benefits of the product.

Tree Climbing Gear

MR. SUMIT
311 D railway
Colony Ambala Cantt
(Haryana) M. No.
0941680664

MY INNOVATION

The innovation is a system to climb a tree for trimming it. With this machine, the stupendous task of trimming a tree is reduced to a much easier form of work. One can easily trim the tree without any external support using this machine. Easy to use, the machine is of light weight, which makes it more accessible.

IMPACT ON SOCIETY

With our country being one very close to nature, trees always remain dear to us. Trimming them is one of the regular chores which takes place on a day-to-day basis here. Such a machine makes the cumbersome work much easier for people.

THE SPARK

Once when I saw a man trimming a tree in the field with a long handled saw and a ladder, it made me think on how much pain the workers have to take for such a task. The worker has to depend on many other secondary instruments for the task. Seeing them made me come up with such an idea.

YOUR ENTREPRENEURIAL JOURNEY

The idea came to me from what I saw from nature. Thinking that there can be a much easier method to do such a task, I pondered on the thought. The reworking of ideas and with an attempt to find out a solution, I came up with this innovation. The hard work and constant work made me realize my first innovation work.

ASSOCIATION WITH TePP

The innovation would not have been possible without the support from the TUC. The association with TePP only made me make my dreams a reality. Not just financially, the mentors also provided me great support. The mentoring and help provided by scientists gave me an exposure to the high level of expertise. It provided me financial as well as moral support to device this system.

PATENT STATUS

Have not applied yet.

FUTURE PLANS

To commercialize the product so that it is accessible to all.

WORD OF ADVICE

Hard work can only give shape to your ideas.

YOUR INNOVATION PHILOSOPHY

To innovate systems beneficial to the people at grass root level.

Study and the Use of Musa Parsdisica

MR. ASHISH KHATRI
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MY INNOVATION

My innovation is about the "study and the use of Musa Parsdisica (Banana Tree) fiber for making eco-friendly and cost effective products for mankind and there by create employments to rural and tribal people.

IMPACT ON SOCIETY

The textile industry is the second largest industry globally and the scope of employment is really big in this industry. Having developed such a technology of developing from fibres, it will offer employment to a huge percentage of the Indian population.

Banana plant is endowed with virtuous fibres, which can be used to make good apparels. Though, the plant is more popular for its fruit, it has been a source of high quality fiber which is used to manufacture textiles. Waste materials extracted from banana trees can also be a source of livelihood for the poor, rural and tribal population of the country.

THE SPARK

From childhood itself, I was interested in Science. Inventions always fascinated me and I did small works during that time itself. This invention was done by me when I was in 11th standard and I have a six year experience in this project. The idea of the invention came from "Garland Maker Women" and I started working on it from 2005.

YOUR ENTREPRENEURIAL JOURNEY

Understanding the importance of the Banana plant made me come up with such an idea. With the idea of doing something for the society, I started working on it for the past six years. For the last two years, I am constantly trying to improve on this machine. In between, I faced many problems. No mechanic would have wasted their time to make a prototype of a single machine but I was still doing it. Firstly, I had made a wooden model with the help of a carpenter but it was not working. But slowly people started recognizing my efforts and with an article being published on me faith was bestowed on me.

ASSOCIATION WITH TePP

I had asked for support from many firms but none came to help. Once I got to see an article on TePP in the local newspaper. The TUC Coordinator Dr. S.M. Mathur helped me and now my project stands up to the international level. Without their support my venture would not have attained the wings. The platform helped me a lot to realize my dream.

RECOGNITIONS/AWARDS

I have received a number of awards and prizes among which I am proud of being the recipient of the 'Junior scientist of Rajasthan', given by the former President, Dr. Kalam. I was also honored by the Government of Rajasthan on Republic day in 2006.
I also secured first position in the India International Rural Cultural Festival in the 'Field of Science' held by Ministry of Youth, India and also bagged the first position in an exhibition organized by the Department of Science and Technology in 2006.

PATENT STATUS

I had filed my final patent and I got it in March. My patent file up No is 570/Del/2008.

FUTURE PLANS

To give employment to the people in need and to give some thing new to the textile industry. I have also started a society, MANN SOCIETY (Make Atmosphere Neat & Clean).

WORD OF ADVICE

I am totally inspired by our former President and his Vision-2020 like many others. My whole society team work is on his vision and I would advice new innovators to come and let us change the universe but maintain the natural beauty of the universe.

INNOVATION PHILOSOPHY

Make the universe creative, and save nature.

Automated Portable Public Toilet

MR. HARI SASI
Harisree, Muthukattukara
Nooranad.P.O.
Alappuzha Dist:
Mob: 9847590630
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MY INNOVATION

In this project, a system is proposed through which information, communication and environmental technologies are applied for solving many of the inherent issues of public sanitation such as lack of cleanliness, lack of manpower support to look after the unit etc. Through this project it is planned to develop an indigenous unmanned automated portable public toilet that can be placed very easily in the streets. This Plug and Play toilet will be designed by using multiple appropriate technologies. This innovative product will have facilities for automated payment collection, door opening system, flushing, sterilization and cleaning. SMS alerts will also be used for sending messages to inform the control room about any failures, errors etc. This unit will be fabricated using environment friendly materials and practices. Innovative practices such as bio waste management/water recycling etc will be used for waste disposal. The unit is planned to generate its own energy from the solar panels attached to it. It will also have the traditional power connection mechanism.

IMPACT ON SOCIETY

Clean public toilets is the need of the hour in the country. Our aim is to improve the common sanitation system of the country by incorporating the modern technologies in lesser cost and available for the public with ease in usage.

THE SPARK

Continuous traveling through out South India and the bitter experience from the public toilet gave me the idea of thinking about automation of toilet. I heard a lot of complaints and worries from my friends and relatives.

YOUR ENTREPRENEURIAL JOURNEY

Once I got the idea, the support was the one which was needed. I got the support from the technical and management group of the organization where I am working, Rain Concert Technologies (P) LTD. The Managing Director of the company, Mr. Vinod M.S, CEO, Mr. Abhilash, electronic engineers Anand, Arun, Rogy, all helped me to mould out this product. I don't think other companies will encourage these types of ideas, while working in an organization. We have a technical forum working inside the company. I presented my idea to the forum and they suggested TePP to me.

ASSOCIATION WITH TePP

It was a great opportunity for me to work with TePP. Definitely an organization like this is needed to promote the young technoprenuers. The technical officers helped me out to fine tune my ideas.

FUTURE PLANS

Rolling out the low budget model of Delight and fulfilling the dream of a cleaner and sanitized India. Also to encourage unemployed people to be an entrepreneur with this product.

WORD OF ADVICE:

Think globally but act locally so that only you can find out the solutions which will be beneficial to your society. Please open your sensory organs. The opportunities and solutions are around you. Grab it.

INNOVATION PHILOSOPHY

Observe things around you and do pure hard work.

Digital Textile Printing Machine

MR. S .RAJAKUMAR
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Thanjavur (dt)
Tamil nadu
Email: rajakumar_raajk@yahoo.co.in

MY INNOVATION

The objective of the project is to devise a digital textile printing machine, which is capable of digitally printing designs continuously and directly on fabrics. The machine would make the printing process on fabrics easier. Adopting the Inkjet printing methods, the machine has many advantages when compared to its earlier counterparts. Apart from the methods it is also using eco-friendly inks, which adds to it.

IMPACT ON SOCIETY

Printing being a very vital process in our country, there is the requirement for making the process more suitable for customer needs. This machine makes it viable. It makes the printing process faster thereby reducing the effort taken. Not just the time consumption it also produces good quality printing as well. The machine has the power to respond much faster to the customer's needs, which makes it more suitable for the society.

THE SPARK

The textile designing field was always an area of interest to me. Thinking on the various methods of producing textile designs, the thought of finding a new way to produce the designs came to me. The idea stroked and then I was thinking of finding a new way to produce textile designs. Thus I came up with this idea of printing in a very simple way.

YOUR ENTREPRENEURIAL JOURNEY

The textile designs always fascinated me. The thought of finding a new simple method for producing textile designing landed me with this. With research and constant efforts, my journey is moving in the forward direction with lights of success and hope.

ASSOCIATION WITH TePP

The association with TePP helped me a lot. Both financially and morally, TePP has supported me throughout. Its support in different ways has made me achieve such a stage with my project.

FUTURE PLANS

To devise a commercial model in the next stage and take it to the market. The machine should be made known to the people and it should reach the end users. The benefits of the machine must be made accessible to people.

WORD OF ADVICE

Hard work with creative thinking pays dividend to every one.

INNOVATION PHILOSOPHY

My philosophy is to invent something that relieves people from sufferings.

Pickling Acid Recovery Process and Equipment

MR. ARAVIND A NARAYAN
A5, Trec Step,
Thuvakudi,
Trichy 620015,
Ph: +919789481405

4 in Series setup

Recovered Acid

DD Outlet

MY INNOVATION

The innovation is the pickling acid recovery process and equipment. Pickling acid is a general nomenclature for acids like HCl, H_2SO_4 etc used in engineering industries for removal of rust from ferrous materials. The acid is rendered useless after the iron contamination reaches a saturation level and needs disposal. The innovation helps in recovery of pickling acid for reuse. The once used pickling acid can be utilized again for further activities.

IMPACT ON SOCIETY

The existing treatment system actually follows chemical neutralization before disposal. But the innovation recovers acid and thereby reduces the new acid purchase quantity. The excess purchase of the acid can be easily controlled thereby conserving it. The innovation also helps in controlling the use of hazardous chemicals for treatment. Hence, not just the acid gets recovered even the use of hazardous chemicals can be controlled.

THE SPARK

The innovator has always found the pickling acid as a topic of interest. Being engaged in offering specialty engineering equipments for liquid pollution control, the innovator has always tried to find out new ways of experimenting with the acid. Over a time, there have been enquiries for products which could replace the conventional treatment for these acids. The study on them made me come up with such an idea.

YOUR ENTREPRENEURIAL JOURNEY

The innovation journey started with understanding the process where waste is generated. Then I continued with finding solutions that are feasible and cost effective as a replacement to the current situation. The present process is gravity operated process and used inputs from foreign suppliers. Even the pretreatment process involved use of indigenous components which have been modified to suit the process conditions. The process has now begun to provide positive results and the commercialization work has to be commenced.

ASSOCIATION WITH TePP

Without TePP, the innovation could not have materialized. TePP provided me complete support to make the innovation possible. With just the idea, the practical application of it won't have been possible. The TUC offered not only financial but also technical and mentoring support, which helped me make my innovation come true. Without their support, the innovation would have remained just on paper.

RECOGNITION/AWARD

The product is in an advanced R&D stage and has attracted potential clients and the date of its commercial launch is being awaited. The innovation with other existing innovations of the promoter and company has helped it get short listed for funding under FAST scheme of DST under waste to wealth category.

PATENT STATUS

Patent filing is being done.

FUTURE PLANS

The innovation has evoked market interest and awareness. The commercial production is being planned once the finishing touches are given. The product should reach the user and the community should benefit from the innovation.

WORD OF ADVICE

Be alert and observe whatever around you is happening. You will get solutions for all man made discoveries. There will be a solution and problem which may need your help. Opportunities exist always, match it with your expertise and innovate.

NSG Air Chess Game

MR. TAPAN DEB
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Gar-Ali, Jorhat – 785001.
Mobile - 09854435975

MY INNOVATION

The innovation is a new chess game-NSG air chess. This game consists of 10 × 10 divisions. It contains 20 keys for each participant. This game is hired from the original chess game to make it more interesting. The modified chess has included improved/modified playing technique by introducing some of the well-known warriors whose contribution in the battlefield cannot be ignored. Now-a-days children should also be aware of the same. This is a game of strategy in which the player not only tries to win the battle but also tries to take advantage of the weak points of the opponent. The battlefield includes 'Own land', 'No man's land' and 'Line of control'. The total number of keys needed to play this game is 40.

IMPACT ON SOCIETY

The game is designed with many modifications, which makes it more interesting. It makes children aware of many other warriors who play an important role in the battlefield. This game will increase the brain power particularly to students. It will also boost up a new dimension to the original chess game. This will generate an entire new taste to the chess players.

THE SPARK

During the 26/11 Mumbai attack, the patriotism of NSG soldiers influenced me. Being keenly interested in chess game, I wanted to express my patriotic feelings through the game. It feels extremely proud to be able to put my patriotic feelings into something. The chess game made me keep up my spirit in my innovation.

YOUR ENTREPRENEURIAL JOURNEY

When the thought of bringing in this concept in the chess game came to my mind, firstly, I started thinking on the modifications that can be made to achieve it. As the first step, I made the chess board of 10x10 size. After that designed on the prototypes of the elements of the game.

ASSOCIATION WITH TePP

I came to know about TePP through the advertisements in the newspapers. It helped me to make my idea practical. It has provided support in all possible ways and without them realizing the innovation would not have been possible.

PATENT STATUS

Not yet.

FUTURE PLANS

Want to make this game reach the masses. Firstly, starting with the student level the game should be made popular. Right from national to international events should acknowledge the game and it should become an event amongst them.

INNOVATION PHILOSOPHY

To be patriotic.

Portable Microscopic Slide Projector

MR. CHANDRA NARAYAN BAIRAGYA
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MY INNOVATION

The innovation, a portable microscopic slide projector (teaching aid). It is basically a small, inexpensive, slide projector designed specially to serve as a teaching aid for students of life sciences that is sure to replace conventional microscopes in the classroom, in personal use and for field studies. The portable microscopic slide projector (teaching aid) has provisions for utilizing either direct sunlight (for outdoor applications) or an inexpensive and lightweight LED (for indoor applications) as the light source, a condenser with filter that acts as a diaphragm, a set of high power condensers, a set of high power compound lenses, a clip loaded holder for accommodating microscopic slides and a reflector set for using the device in natural sunlight. The whole assembly is mounted on a detachable stand affording better portability.

IMPACT ON SOCIETY

This inexpensive and highly reliable device is extremely useful as a teaching aid or a personal aid that obviates the necessity of either transporting a bulky and costly microscope for field studies or taxing queues of students waiting to take a peek into the world of microorganisms through the microscope. In addition, the device affords multiple visibility from a standard set of slides, which both saves the time of the teacher and leads to group interactions.

THE SPARK

I was a teacher of life sciences at the secondary school level. Once while teaching, I noticed that the microscopes used in schools, colleges and even universities, posed various problems during the observation of microscopic slides under conventional microscopes. I decided to devise a simple, rugged, inexpensive teaching/assistive device – the portable microscopic slide projector (teaching aid) .

YOUR ENTREPRENEURIAL JOURNEY

Innovations had always fascinated me. Throughout my life, I had been looking at ways and means to innovate and produce something better, more valuable out of a standard item. The portable microscopic slide projector (teaching aid) is basically a derivative of the efforts I put in for the development of the mini microscope.

ASSOCIATION WITH TePP

Not just funding support, TePP also provided exposure to the high level of expertise available at this national institute. It has helped me in innovating on product design, mechanism design, etc. Now I also have the chance to analyse the performance of the device even before it hits the prototype stage.

AWARD/ RECOGNITION

Won the Shristi Samman of the National Innovation Foundation in 2006, and further went on to win the Best Innovation Award in the 13th West Bengal State Science & Technology Congress in 2006 for the Mini microscope.

FUTURE PLANS

I would like to refine the innovation to bring it up to a product level and start manufacturing and marketing the device through some cooperative venture.

WORD OF ADVICE

Try to unearth the true potential of all you see around you: the very mundane things contain the seeds of innovation.

Low Cost Automated Cash Deposit Machine

MR RAJIV SHANKAR SINHA
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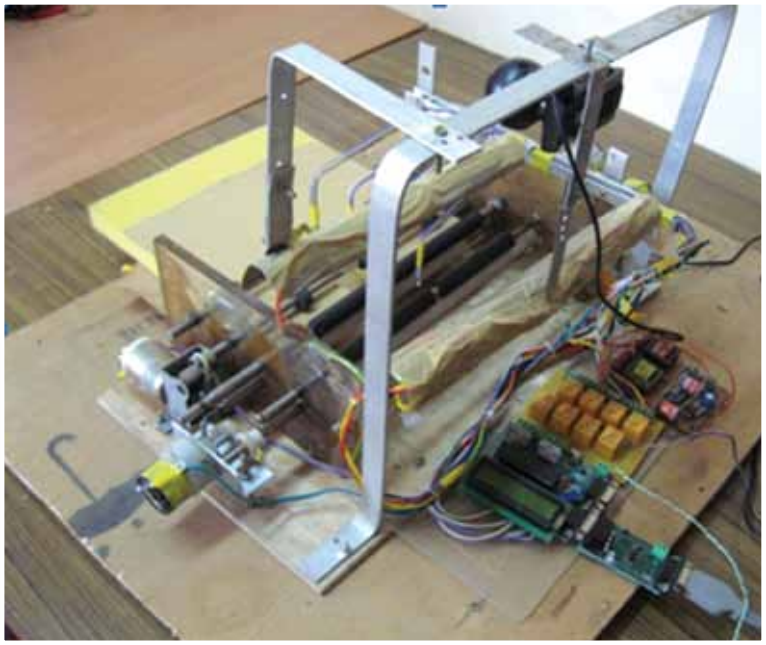
941551116



MY INNOVATION

The idea is to develop low cost automatic machines which can validate Indian currency of all denominations. The machine can be used by commercial banks to facilitate banking services. Other potential end users include shopkeepers, petrol pumps, train ticketing, currency exchange counters etc can also avail it. An automatic cash deposit machine built on the same principle with some added features can be offered as an automatic deposit centre for poor people, living in populated areas (slums).

IMPACT ON SOCIETY

The major advantage of this device over existing ones in its category is its compactness and cost effectiveness. It can be used in various financial institutions and would ease out the problems faced by them. This would be really advantageous as it can help them in increasing their efficiency as well.

Countrfeiting has emerged as a major problem in the country with most of the fake notes having the same features of that of the original. This technology makes the financial institutions have a control as it validates the currencies of all denominations.

THE SPARK

The idea struck while I was reading about increasing inflow of fake currency in the Indian economy. I felt the need for a low cost currency detector which could become a tool to put a check on counterfeiting. Counterfeiting is emerging as a major problem and this is the need of the hour. Just the mere thought of finding a solution to this rising problem made me come up with this innovation.

YOUR ENTREPRENEURIAL JOURNEY

It started from my hostel room, discussions with colleagues and faculty members. I developed few ideas having commercial potential with the ideas which I acquired from such informative discussions, and formed a group of likeminded colleagues. After registration of the company, I started the venture from IIT Kanpur's incubation centre (SIIC).

ASSOCIATION WITH TePP

When the idea struck, I was a student and needed some funding, which could help me in converting the idea into a prototype. But the TePP support came as a major boon. The grant received from them helped me a lot in developing my idea into a full fledged venture. Without their support bringing such a venture to such a great stand would not have been possible.

RECOGNITIONS/AWARDS

First prize in Megabucks Ideaz-2009, annual business plan competition of IIT Kanpur.

FUTURE PLANS

The first task is to convert the prototype into a commercial product. Parallelly we are holding discussions with various companies having business interest in currency validation and banking security so that the product could be launched in the market. Our aim is to make the product reach the masses in the right way. The financial institutions should know its benefits and the maximum utilization of it should reach the end users.

WORD OF ADVICE

Innovation is key to success, let's give it a try.

INNOVATION PHILOSOPHY

Technology and innovation to make a better future.

Two Speed System for Easy Pulling of Rickshaws

MR. SURENDER KUMAR GURJAR
311 D Railway Colony Ambala Cantt. (Haryana) M. No. 09729539426

MY INNOVATION

The innovation is a two speed system for easy pulling of rickshaws. The rickshaws usually require the puller to take extra effort to start the vehicle. With this two speed system, it helps the puller to start the vehicle with much ease.

IMPACT ON SOCIETY

Rickshaws are a common man's vehicle in our country but still its working system remains a tedious task for the rickshaw pullers. The two speed system would reduce fatigue of the rickshaw puller as lesser effort will be required to start up the vehicle. Especially while climbing a gradient, the effort would be much less.

THE SPARK

Once when I saw a rickshaw puller putting in excessive effort while climbing a gradient, I realized the pain which they have to pour in for the task. The incident made me think on an alternative for it. This made me come up with such an idea of a system which would ease their efforts.

YOUR ENTREPRENEURIAL JOURNEY

Innovations have never been alien to me. In my department, Railways, I am used to such innovations. In my official tenure itself, I have done lots of system improvements and innovations in my department.

ASSOCIATION WITH TePP

The association with TePP only made me think on my idea so strongly. It gave me the confidence to go ahead with my idea. It provided the financial support and moral support as well. Both financially and also with such an expert panel to support, it helped me end up with such an innovation.

PATENT STATUS

Have applied for the patent status.

FUTURE PLANS

To make it available for the common man. The product should be introduced to the real end user, ie, the rickshaw puller.

WORD OF ADVICE

Innovation needs continuous work to be materialized.

YOUR INNOVATION PHILOSOPHY

Necessity is the mother of invention.

Multi-level Automated Two-wheeler Parking Unit

MR. S. VENKATRAMAN
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MY INNOVATION

The innovation is a multi-level automated two-wheeler parking unit. With car parking and two wheeler parking, being a nightmare in the country, a solution is the need of the hour. Thinking on the rising problems of the city due to parking, I came up with this idea.

IMPACT ON SOCIETY

Car parking and two wheeler parking has rose to become one of the major problems of urban cities these days. Vehicles are pushed on the roads daily without a corresponding managing strategy for parking. The street parking many a time, eat away 50% of the needed road space severely affecting the free traffic. Though the problem is a global issue, no international solution fits the need.

My innovation is a perfect solution to this and effectively answers the need and edges away all other solutions by merit. The multi level automated parking unit makes it easy for the people to park their vehicles without having any fear of the authorities picking up their vehicles from the spot. Not just the comfort of the people, with the roads being congested with the urban development on the way, this system also helps in decreasing the road traffic. Usually the vehicles being parked on the roads pose as the major problem to the rising road traffic but this multi level system act as a solution to them as well.

THE SPARK

The idea came to me while I was caught up in a big traffic jam for a long time. I was in a hurry to reach the destination but the traffic made me late, which made me think on a solution for the difficulties faced by daily commuters.

YOUR ENTREPRENEURIAL JOURNEY

I first started with the concept of effective space management. Once when I presented my concept, the delegates wanted only a fully automated version.

But in the next presentation to architects, they asked me to find a way to solve the indispensable waiting and queuing of cars at the receiving station. Keeping all the criterions, I designed a system to meet their specific demand and incidentally the system gained flexible demand based management as a by-product. Again automation of the handling system lead to the development of a reengineering pallet and I achieved success at last. Later the recognition from WIPO added to my credit. The CMDA wanted me to develop a two wheeler parking system, since two wheeler growth is exponential.

ASSOCIATION WITH TePP

I approached TePP for my two wheeler parking unit, since it fell within the reach of their financial limits. They created a milestone in my life by recognizing the invention and awarded a grant for installation of a prototype and arranged space for installation in a prominent place.

PATENT STATUS

I have a national patent for my two wheeler parking system and car parking system and international patent for my car parking system. My patent application under national phase in the US, Europe, Japan and Singapore have reached publication stage. My presentation of the two wheeler parking system before CMDA got appreciation from all.

FUTURE PLANS

To commercialize the product. The demand will be perennial in the context of astronomical two wheeler growth. I want it to reach the needy and thereby solving the mushrooming traffic problem.

WORD OF ADVICE

Pick up one idea and pursue it till the end. God will show you new horizons.

INNOVATION PHILOSOPHY

Patience, passion and hard work will definitely take one to where he should go.

Blending PTFE Powder with Various Fillers

DR. ARUNACHALAM LAKSHMANAN
Professor, Saveetha Engineering College, Thandalam, Chennai 602105, India

MY INNOVATION

The innovation is an inexpensive method of blending PTFE powder with various fillers. It also helps in manufacturing PTFE micro powder from PTFE scrap. Recycling the PTFE scrap, the process is economical. The existing expensive methods can easily be replaced with the innovation.

IMPACT ON SOCIETY

Innovation saves the cost of production of filler grade PTFE. Also the cost of recycled scrap will reduce plastic waste too. With the cost of production being decreased it is very economical for the industry. Presently, the scrap is being thrown away which could cause ecological problems. The innovation not only speeds up the process but also helps in conserving our environment. It makes the process more efficient while reducing its bad aspects

THE SPARK

The PTFE was always an area of interest to me. During my tenure in the Department of Atomic Energy in India, I was always associated with the PTFE products. Working on the PTFE filled products, made me think on the various new methods which can be added in this sector. Thus, the idea came to me while working on them.

YOUR ENTREPRENEURIAL JOURNEY

The method of production of filled grade PTFE at low temperatures in DAE is too expensive and not acceptable to industries. So I looked around for an inexpensive method of making it. After strenuous efforts and constant studies, I landed up with the innovation. I could attain success on my idea after trying on them for a long time. Recycling PTFE scrap is a very new idea which I would like to make it as perfect as possible. Some reports even suggest that the products made from PTFE scrap are stronger than those made from virgin grade. Hence the method is the need of the hour to make the process more viable and feasible to all.

ASSOCIATION WITH TePP

I am very pleased that TePP recognized the novelty of my idea. Its usefulness for the Indian plastic industry was duly understood keeping in mind its green effect. Without their support, the work would never have been possible. The TePP award would fulfill my ambition and would be the most useful contribution to Indian industries. The support from the TePP is the strong stone which made me achieve my dreams

PATENT STATUS

The first phase will be completed by November 2010.

FUTURE PLANS

The knowledge of the process should be passed on to the industries. The benefits of the process should be made known to the people. People should be made aware of the process and the various positive aspects of it.

WORD OF ADVICE

Work hard, look around for problems which need immediate solutions (eg, recycling plastic waste). Come up with simple cost effective solutions and always keep in mind that your innovation should help the common man

INNOVATION PHILOSOPHY

Help the poor by creating job opportunities.

Three Dimensional Bill Board

MR. MEHAR ALI
Rose Gardens, Palachode,
Kakkanad (W) PO, Ernakulam
6820030
09895288707,04802860707,
alimehar@hotmail.com

MY INNOVATION

The innovation is a three dimensional bill board. A digitally operated one, it will be a multidrive- 3 faced sign board

IMPACT ON SOCIETY

It triplicates the scarcely available advertising space in the cities, apart from adding high capture value to OOH advertising. With less space, giving the maximum visibility is possible with this technology. Especially with our city getting congested, this is the need of the hour.

THE SPARK

Having understood the technical problems with currently available technologies, which prevents the widespread use of high in demand motion based solution.

YOUR ENTREPRENEURIAL JOURNEY

Initially, I studied the current technology for short testing the problem and started solving them on a priority basis. Further, a master design was charted for solving the problems along with adding new features to the system. This necessitated huge R&D expenses. For which TePP came as a magic wand and I could take my journey forward.

ASSOCIATION WITH TePP

After research and work, I came to a stage when with out some external assistance in terms of finance and technology, moving forward would be difficult. The novel program of TePP by DSIR came to the rescue then. The proposal was accepted and I could realize my dream framing up with their support.

PATENT STATUS

The application for the patent status has been forwarded

FUTURE PLANS

Once the prototype and trial runs are over, we plan to go for commercilisation of the concept through our channels. I want to make the product reach the market so that the end users can benefit from it.

WORD OF ADVICE

Never hesitate to work on an idea thinking that its foolishness

INNOVATION PHILOSOPHY

Innovate to lead. Lead to innovate.

Automatic Mechanical Sliding Door Closer

MR. D. THULASI RAMAN
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China Thambi Street, Vyasarpadi,
Chennai – 600 039,
Mobile: 98400 98010.
E-mail: dtrtechworld@yahoo.co.in

MY INNOVATION

The innovation is an automatic mechanical sliding door closer. Though there exists many versions of such door closer, this is economical when compared to its counterparts. The door closer reduces human effort and makes things much easier to do.

IMPACT ON SOCIETY

The automated devices have become the need of the hour in the fast paced world. The automatic mechanical sliding door closer is one such addition to the society. It is important and serves the industry, society and the world. Reducing human effort it saves time as well.

THE SPARK

Innovations have always remained dear to me. I had an ambition from my childhood itself that I would like to become a great scientist in the world.

YOUR ENTREPRENEURIAL JOURNEY

Learning is one of my best tools, which has made me what I am today and also made me achieve so far. I have 17 years of experience in engineering field and am well versed with Mechanical, Electrical, and Electronics field and still am on the learning process. I had a special interest in machines and I used to do any type of machine service and special purpose machine designing and assembling as required by customers. After I earned for some time, I started making my designs into prototype.

ASSOCIATION WITH TePP

Joining TePP was really a great experience. It acted as the stepping stone in my life and made me pursue my dreams. It not only provided financial but moral support as well and thus made me realize my dream.

AWARD/RECOGNITION

I had been interviewed in SUN-TV on 30 – 09 – 2005 in the program of Vannakam, Thamizhagam in the slot of Namauru Vinjani. The USA Yammaha Motors have also approached me with an agreement but it has not been signed yet.

PATENT STATUS

Have just filled for patenting

FUTURE PLANS

I would like to commercialize the product.

WORD OF ADVICE

I realize, every one has to accept the word of Dr. A.P.J. Abdul Kalam's "Small aim is a crime". I will keep the lamp of knowledge burning to achieve the vision- Developed India.

INNOVATION PHILOSOPHY

To make people enjoy easy and happy life till the end.

Cooling System for Motorcycle Helmets

MR. GEORGE KOSHY
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Phone: 9324407463 Email: george@latenttech.co.in; geokos@rediffmail.com

MY INNOVATION

The innovation is a proprietary cooling system for motorcycle helmets. It continuously cools the interior of the helmet. The cooling system has no moving parts hence it requires no maintenance as well. The system is aesthetically integrated in a helmet and hence offers complete comfort to the driver. It also complies with the safety and quality standards.

IMPACT ON SOCIETY

With helmet being compulsory for the riders in the country, this innovation comes as a boon to them. It satisfies the need to feel cool and travel safely on a motorcycle. With this system, it will transform the discomfort of wearing helmets into a pleasurable experience thereby increasing the alertness and calm of the motorcyclist.

THE SPARK

The idea occurred to me in 2002 while pursuing the last year of my MBA during one of my daily commute to college on my motorcycle.

YOUR ENTREPRENEURIAL JOURNEY

Once the idea occurred to me, I started researching and brainstorming on the approach to implement the idea. Due to my electronic engineering background, I identified solid state electronic cooling to be a good approach to achieve the cooling in helmets. During my employment with Castrol India Ltd from 2002 to 2007, I tried to liaison with scientists and companies abroad dealing with the technology to help me with the product development. Finally in 2007, I got in touch with Dr. Milind Vishwanath Rane from IIT Bombay who agreed to offer his heat transfer expertise to develop a proprietary technology. I resigned from my job with Castrol in 2007 to invest time fully to develop the technology along with Dr Rane.

ASSOCIATION WITH TePP

The ideology of TePP to support individual innovators through a grant is too good to be true. It is angel investing in its purest form considering its no strings attached approach. The association with TePP helped me right from the start. The initial technical screening helped me in crystallizing my idea. The regular reviews by the committee after sanction of grant helped me in evaluating the course of product development. The experienced advice offered by TUC also helped the progress of my project.

RECOGNITIONS/AWARD

I had submitted my business idea and plan for the Power of Ideas program initiated by Economic Times this year. Out of 12,000 ideas submitted across India, my business plan was shortlisted among the first 1000. Post elevator pitch and mentoring sessions with experienced venture capitalists, my business plan was in the final shortlist of 254 ideas. My product idea was covered in the Economic Times article dated 29th June 2009 titled “India needs a brilliant wave of entrepreneurs”.

FUTURE PLANS

We are in the final stages of product development and engineering. We will be launching the product in India in the next 3 months. We are seeking capital for manufacturing and marketing the product and for International patent protection. We are interested in licensing the technology for foreign markets.

WORD OF ADVICE

Have unfailing belief in your ideas. Do not shoot down your ideas when faced with failures or unforeseen delays. Work with a better approach.

Multi Purpose Mosquito Trap

MR. ORWIN IGNATIUS NORONHA
NITK - STEP
PO Srinivasnagar-575025
Surathkal, D K District, Karnataka
directorstep@hotmail.com
0824 2477847, 2475490

MY INNOVATION

The innovation is a multi purpose mosquito trap. The technology is very efficient and has the power to kill the mosquitoes in a more efficient way. The uniqueness of this technology is its attraction, entrapment and killing of the mosquitoes.

IMPACT ON SOCIETY

The diseases spread through mosquitoes are increasing to a great level in our country. A method to curb the rise is the need of the hour. Though there are many machines existing in this segment, we lack efficiency in them. This technology helps in killing the mosquitoes in a better way and there by causing reduction in the population of adult mosquitoes responsible for breeding in the environment.

YOUR ENTREPRENEURIAL JOURNEY

I am an innovator from Mangalore. The rising problems made me come up with this idea. Having practical exposure to industry work culture, I slowly developed my idea to make it a successful venture.

ASSOCIATION WITH TePP

The association with TePP was a good one. The project was supported under the " Micro Technopreneurship scheme of TePP, DSIR" to establish the working concept of this technology. The product has been tested at National Institute of Malaria Research, Bangalore. Further with their support, I want to move ahead with my ventures.

PATENT STATUS

The technology has been patent filed.

FUTURE PLANS

TePP, DSIR has recommended this project to be taken up for commercialization under their TePP phase II scheme. The product should be commercialized. It should reach the end users so that they can utilize the maximum from it. Further a venture capitalist from the Gujarat region is also exploring the potential for commercial scale investment in this project in association with me.

Printing Paper From the Raw Skins

MR. K. MOHAMED FAKRUDDIN
No:29, Hassan Basha Cross street, Pallavaram, Chennai-43
Cell: 09884944902

MY INNOVATION

Printing is a major industry in our country. With each and every sector being associated with it, printing is a vital department in all the major sectors. With the cost of printing rising on to a great extent, new methods to make it economical are the need of the hour. This is for the first time that the method of making a printing paper from the raw skins of the animal has come into picture. The innovated product resembles a paper sheet and it is produced from leather.

IMPACT ON SOCIETY

The product has a variety of uses which makes its impact widespread to various parts of the country. Being a good quality printing paper, it can be used for various purposes like:
a) Certificate for college and university students.
b) High grade government awards.
c) High quality business cards.
d) Personal information sheet in the personal dairy.
e) Any highly valuable document like various international agreements between nations.
The main advantage of this paper is that it can be preserved forever without any damage.

THE SPARK

I wanted to do something unique in my field of expertise. Innovations have always fascinated me. Thinking on the ideas to develop new methods in printing, made me come up with such an idea. The innovation is the result of my gut feeling.

YOUR ENTREPRENEURIAL JOURNEY

Well, the journey was a very simple one. I came up with the idea and slowly it moved on to become an innovation. It started of very humbly in leather. It developed on in the laboratory of leather tannery and then with the help of TePP, it is growing to heights.

ASSOCIATION WITH TePP

The association with TePP is excellent. It really helped me in making my ideas come true. It gave wings and ground to my thinking and made me come up with such an innovation.

PATENT STATUS

Have applied for the patent status.

FUTURE PLANS

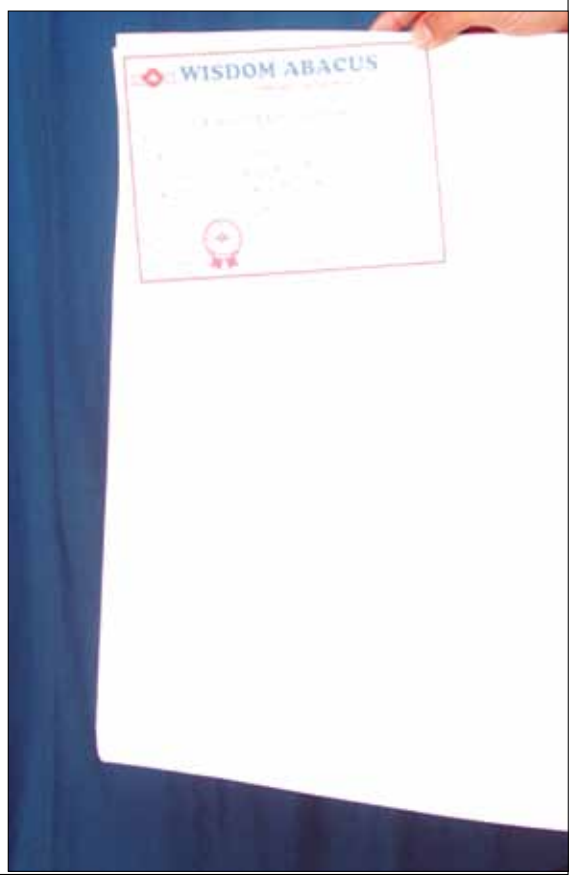
To commercialize the product and make it available in the market. The product should reach the end users and help them in all their works.

WORD OF ADVICE

Work hard with confidence.

INNOVATION PHILOSOPHY

To innovate things, one should think like a child.



High Energy Planetary Mill

MR. PREM PRAKASH
SIDBI Innovation & Incubation Centre
Indian Institute of Technology
Kanpur, Uttar Pradesh
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sudha@iitk.ac.in
0512 259 7057 / 7979 / 6648

MY INNOVATION

It is about high energy planetary mill. It has been designed in such a way that it creates a very high amount of impact energy inside. The energy produced by earlier existing commercial planetary mills was not upto the mark. The innovation makes us to produce high amount of energy, which was not possible in any other existing commercial planetary mill.

IMPACT ON SOCIETY

The entire world which is in the field of doing research relating to mechanical alloying, nano particles are going to be the major user of our innovation. This speciality makes our innovation have an upper hand when compared to others. With the existing mill producing only less amount of energy, this innovation plays a vital role in helping in the producing of more energy. Not just in producing energy, the machine is also available at an affordable cost.

THE SPARK

The idea came to me while I was discussing with a senior Phd student over a cup of tea, during my M Tech days. It was just an outcome of a valuable discussion. Its really strange that sometimes we get the greatest of ideas from such small discussions.

YOUR ENTREPRENEURIAL JOURNEY

Our ideas got the recognition in 2006 at an event organised by pan IIT held at IIT Bombay. We secured the second position at the event. During the discussion with the jury the suggestions came towards making it a successful venture. This paved way to the first steps towards the journey of entrepreneurship. With the idea and after getting such wings of support, I gained confidence, which made me move ahead with my venture. The support made me make my ideas practical.

ASSOCIATION WITH TePP

The association with TePP has been fruitful in getting the TePP grant. It helped us towards thinking for commercialization of the product. Without their support, the complete success of the product would not have been possible.
The idea was just a raw product, it gained its full form after the support from TePP. The association with TePP was a light of ray in the venture.

RECOGNITIONS/AWARDS

In my journey, I was blessed with many awards which gave me confidence to move ahead with my ideas. Among them, the few are:-

- I secured second position in Ideas contest at IIT,Bombay in 2006
- The sanctioning of the TePP grant
- The recognition, which I received at CMERI,Durgapur, during the workshop organized by TePP in November 2008.

PATENT STATUS

Have applied for it.

FUTURE PLANS

Commercialisation and realizing revenue from commercialization. I want to bring the product to the market and make it reach the end users. I also want to modify the product and make it more user friendly. Understanding the improvement needed in various features, I would revive the product. Keeping up the standards, the product should reach the masses.

WORD OF ADVICE

Make innovation in such a way that the community at large receives the maximum benefit.

INNOVATION PHILOSOPHY

Necessity is the mother of invention.

Light Emitting Tiles

MR. MADHAV VASANT SAWANT
Other team members of the innovation Edul Patel : 9967215225,
Viraj Shah : 9820500677
003-C-29-Bwing, Gokuldham,
Goregaon(E), Mumbai: 400063
Maharashtra India
Madhav Sawant : 9869776651

MY INNOVATION

We have developed light emitting tiles. It absorbs light incident on it and illuminates in the dark. The illumination is bright enough with after glow period of eight hours. These products can be used along with conventional lightings to reduce energy consumption and give out a greater light intensity.

IMPACT OF SOCIETY

With electricity consumption being a major problem in the city these days, the innovation is the need of the hour and will help in effective utilization of electricity. It can be used as a source of energy. Designed to be applied on the ceiling, it gets charged with the existing light and illuminates the area. These tiles find huge application in construction areas like lobbies of commercial, industrial, residential complex, theaters, roads, bridges, tunnels, etc. It may be noted that around 80% of electricity is utilized for lighting application and this can be saved with this innovation.
All our products are essentially solutions to one common problem – lack of illumination. They are not replacement of existing solution but rather can be used along with that solution in order to significantly reduce operational costs. Having 3 kinds of consumers, households, corporations and Government bodies; the paints, tiles are equally useful to all these segments. Thus, they have a tremendous consumer base and huge potential.

THE SPARK

The idea to start something like this came out of fancy. I used to draw galaxy pictures in children bedrooms as a hobby. However, it's a luxury in a way. Thinking on the same lines, we thought to convert this luxury into a utility. Thereby, helping the society in conserving electricity.

YOUR ENTREPRENEURIAL JOURNEY

The journey from a student to an entrepreneur can be stated as the journey from luxury to disaster management to energy conservation. Starting from interior decoration, we landed with the energy conservation. Firstly, we started the concept of 'Galaxy at Home' in the field of interior decoration and it became quite a good success. Further, we diversified into disaster management using night glow paints for lane marking in various areas like hotels, theatres, tunnels, offices, production shop floor, etc. During the blackout due to power failures, the lane marking works efficiently as emergency light. The lane making project is a great success now with our customer list increasing daily as we undertake work on contract basis.

ASSOCIATION WITH TePP

The association with TePP was really helpful which made us make our thought into reality. The Light Emitting Tile was feasible only because of TePP association. The support offered by them was very productive.

RECOGNITION/AWARD

1)Felicitated by former Honorable President Dr. Abdul Kalam
2)Recognized by eminent scientist Dr. Raghunath Mashelkar
3)Interviewed by Times of India and various news channels.

PATENT STATUS

Patent granted for liquid carrying jacket and patent applied for glow in dark tiles.

FUTURE PLANS

To set up a company and become leaders in light emitting paints and tiles.

Midget Transformers and Star Node Circuit Breakers

DR.G.SRINIVASAN
D22,Jain Vatika Apts,
14 Vasan St,T.Nagar,
Chennai-6000017

MY INNOVATION

The innovation is midget transformers and star node circuit breakers. The circuit breakers are designed to increase the efficiency in electric distribution. The method is economical and would save the rising problem of electricity shortage in our country.

IMPACT ON SOCIETY

The problem of electricity shortage has always remained a major barrier in front of our country. Each and every state faces the same problem in a great way. This innovation is economical and will increase the efficiency in electric distribution.

THE SPARK

The electricity shortage is a major problem faced by our country. The idea of such midget transformers and star node circuit breakers came to me thinking on the various consequences of it. The spark came to me nearly seven and half years ago, to develop such a product.

YOUR ENTREPRENEURIAL JOURNEY

Innovations were always there in my mind and I was very serious in pursuing my dreams. After developing on the idea of midget transformers and star node circuit breakers, I slowly implemented them and came out with my product. The hardwork and constant dedication at-last paid with the project getting the CPRI approval and patent status.

ASSOCIATION WITH TePP

The association was really a good experience. The TePP helped me both financially and morally. It funded for the project partly and boosted my spirit to make my dreams come true.

PATENT STATUS

Have obtained patent status for the product, patent no 198725.

FUTURE PLANS

I want to popularize the usage of this innovation to people. The electrical utilities should adopt this and thereby benefit the society. The innovation should reach the end users and thereby help in solving most of the electric problems faced by the society today. The product should be utilized for the benefit of the society.

WORD OF ADVICE

Hold on to a good entrepreneur.

INNOVATION PHILOSOPHY

Innovation is for the upliftment of society.

Friction Stir Welding Process for Industrial Marine use

DR. MANAS MOHAN MAHAPATRA
Assistant Professor,
MIED, IIT, Roorkee;
Email: manasmohan2@gmail.com

MY INNOVATION

The innovation is to develop friction stir welding process for industrial scale marine use. The process would replace the earlier existing conventional arc welding. It would make the process more efficient and effective for great results. The process has wide applications, which makes it applicable for many processes.

IMPACT ON SOCIETY

Friction Stir Welding (FSW) is a solid state welding process, which is most suitable to weld different materials like aluminium alloys. All over the world, FSW is tested and it is slowly replacing the conventional arc welding in welding of aluminium alloys. The recent applications of FSW include many usages like its use in aircraft fuselage and ship super structure fabrication. This rightly shows its wide applications.

FSW process if developed in India will aid in avoiding costly technology imports. This project will help in fabrication of aluminium based ship structures. Further, it can also be used in aircraft and automobile industries. Thus even an industrial scale machine can be easily developed with FSW tools, fixtures and process parameters.

THE SPARK

The idea of developing friction stir wielding process for industrial scale marine use came to me during my Ph D. The research on the subject made me think on such an innovation

YOUR ENTREPRENEURIAL JOURNEY

I was always interested in entrepreneurial activities. Being an entrepreneur always fascinated me. This present project was part of the ideation process after I joined for research at IIT-Kharagpur. The project took formal shape with the active support provided by RTUC-IIT-Kharagpur and mentoring of IIT-professors.

ASSOCIATION WITH TePP

I came to know about TePP from newspaper advertisements, which helped me in knowing more about the presence of the RTUC at IIT-Kharagpur and its functions. The vital interactions with TePP helped me in getting the necessary support for the project. Their support played a vital role in executiong my idea. Both financially and morally the TUC offered great support to me.

FUTURE PLANS

We are in the process of commercializing the technology with necessary improvements.

The Self Propelled Three Row Potato Seeding Device

MR. SK. ABDUL AZIZ
Krishna Bazar,
G.T. Road, Post –
Memari, Dist: Burdwan, West Bengal,
Pin Code: 713146

MY INNOVATION

The self propelled three row potato seeding device for restricted land holdings performs the tasks of digging furrows at proper depths for planting potatoes, planting the seed potatoes at the proper depth and providing soil cover for the protection and eventual germination of the seeds. The device comprises a seed hopper for accommodating seed potatoes, three seed cups that distribute the seed potatoes along three rows, a diesel engine as the prime mover for self propulsion, a set of traction wheels at the front, a set of balance wheels at the rear, three sets of metallic wings for providing soil cover after the plantation of the seeds and three digging blades for providing the proper depth. Propulsion is provided by the diesel engine (5HP-12.5HP) via a reduction gear box to the traction wheels. A part of the power provided to the traction wheels is fed back to rotate a shaft on which are mounted the seed cups. As the shaft rotates, the individual cups pick up the seed potatoes and distributes them along the three furrows.

The row to row distance is adjustable between 18" and 26" for accommodating different varieties of potatoes. The device provides a depth of cut that varies between 6" and 9" for different potato varieties. With proper design retrofit, the device can be made to dig furrows up to 12" in depth for the production.

IMPACT ON SOCIETY

The primary attraction of the device is that it helps in drastically reducing the time required for planting of potatoes. The device simultaneously creates irrigation furrows for subsequent irrigation.

THE SPARK

The idea for the product owes its genesis in the course of the long experience I have in potato farming in the small land holdings of West Bengal. I had noted that all seeding devices available in the country are actually tractor driven, which makes its use restricted in smaller land holdings of West Bengal. There was this inner compulsion to develop a device for reducing labour and time for seeding and increasing yield. The idea was tried out in practice through the development of a rudimentary model through retrofit and salvage utilization, and the initial results are encouraging.

YOUR ENTREPRENEURIAL JOURNEY

Hailing from a farmer family, I had obtained a degree in Science, but had decided not to opt for service after graduation, but to dedicate myself to the introduction of modern farming practices. This led to the eventual opening of my firm – the New Bengal Agro Implements – where I spent more than two decades innovating new and appropriate farming devices.

ASSOCIATION WITH TePP

My association with the Farm Machinery Development Group of the Central Mechanical Engineering Research Institute, Durgapur dates back since I worked with this Group for development of different agricultural devices. It was through this group that I received the invitation to take part in the Innovator's meet organized by TUC-CMERI, Durgapur in March 2009. The device I had innovated impressed many scientists of the Institute and finally received the DSIR approval and funding.

FUTURE PLANS

Design refinement, development, production and marketing of the seeding device as a labour saving implement.

Multipoint Illumination White LED Solar Lantern

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mistry@zariyasolar.com

MY INNOVATION

The innovation is multipoint illumination white LED solar lantern. The lantern is the most economical illumination source based on solar photovoltaic principal. The lantern consists of three LED lamps and one CFL. The lantern can run for 12 hours on one complete solar charge, when LED lamps are used. It can also run for 3 hours when CFL is used. The brand name of the lantern is "Nanodeep". And I am certain if things turn in my favor, I will certainly take this innovation to commercialization. The rural villagers or slum people can use it for lighting up their hut as well.

IMPACT ON SOCIETY

As per data of TERI, 1.6 billion people are living with out electricity across the world. The sad part of the fact is that among that, nearly 25% of the people are from India. It will not be possible for one company to roll-out these many number of lanterns so many new players will be needed to make my innovation reach the end users.

Society will be benefited the most. As one child studies under it's light an educated individual is added as an asset to the nation. The major problem of lack of electrcitiy in rural areas will be solved with the innovation. The lantern being easy to be acessed, the poor people can have a better life with the innovation getting commercialised. Even the CO_2 emission will be reduced if solar lanterns are used to give them electricity.

THE SPARK

The news column of death of a child from kerosene lamp fire breakout compelled me to innovate. It influenced me to come up with something that will light up the lives of many without any health hazards or dangerous situations being created.

YOUR ENTREPRENEURIAL JOURNEY

My journey started from knocking the doors of NIF, but due to lack of funds I was not able to make a prototype. The starting phase was tough with no funds. The lack of funds really affected in making my dreams practical at the first stage. Later I approached TePP center in Udaipur and I got selected to get funds for developing the prototype. The association with TePP helped me come out from the starting struggling phase. Now I am aiming to produce the lantern commercially by applying for the Phase II support

ASSOCIATION WITH TePP

To me the association with TePP is a bit philosophical and I thank the Government of India to initiate such a scheme of national interest. It is really a great step towards the development of the country. The innovators are encouraged with such a support provided by the government. It helped me in realizing my dream. Without their support the innovation would not have been possible.

PATENT STATUS

Not had funds for the same hence could not attain a patent.

FUTURE PLANS

I want to commercialise the product. The product should reach the end users. People should know the benefits of the product and make the maximum of it.

WORD OF ADVICE

Think unique and rush to TePP center near you.

INNOVATION PHILOSOPHY

Think harder, work smarter.

Self Programmable Smart Educational Robotic Platform

MR. RAM SRINGAR CHAUHAN
S-1, SIIC, IIT Kanpur
Kanpur-208016
941551116

MY INNOVATION

Self programmable smart educational robotic platform, which we call PRISM, is a self programmable platform having its own microprocessor, memory, display and key board with visual programming environment. The basic idea behind the PRISM is to remove the computer dependency in building robots. The innovation also aims at programming it for educational purposes. Low cost and non-dependency on computer for programming makes it a very effective tool for schools, which still do not have computer facility.
PRISM can be used to demonstrate robotics and embedded systems' applications to Science and Engineering students without requiring sophisticated instruments/processes and computers. For example working of sensors, servo motors, stepper motors, microcontrollers, intelligent robots such as line-follower, obstacle-avoider etc.

IMPACT ON SOCIETY

The major advantage of this kit over existing ones in its category is its cost effectiveness and simplicity in operations. Its wide applications in schools and colleges make it more useful. The students can be taught the concepts more effectively and easily for the better and easy understanding of students. It will reduce the efforts taken in demonstrating various technical concepts. Being cost effective, the system helps in making the entire process easier and simpler.

THE SPARK

The idea struck while I was playing with Lego Mindstorms kit. I started thinking about something which could be used by millions of Indian kids, who simply cannot afford to buy kits like Lego Mindstorms. After some brainstorming and discussions with friends I came up with the idea of PRISM. The technology needs to reach every nook and corner of the world.

YOUR ENTREPRENEURIAL JOURNEY

Conceived the idea and then started working on it efficiently. I joined a group of innovators who have started a start up to convert the ideas into reality. It made me work on my venture more efficiently. With constant hard work, I was able to create a stand with my product.

ASSOCIATION WITH TePP

The idea was there but the major aspect of finance was lacking. With the need of financial assistance to work on, the TePP grant helped me a lot. The support offered from them only made me convert my idea into prototype form. Without their support this venture would not have reached such a stage. The association really helped me a lot in realising my dreams.

FUTURE PLANS

Basic prototype is developed and the work on advance prototype is ongoing. The final product is planned to be launched as a product of Simplifix Automation & Solutions Pvt. Ltd. I want the product to reach the end users so that each and everyone can utilize the benefits of the system. The benefits of the system should be known to all and everyone should be able to access it.

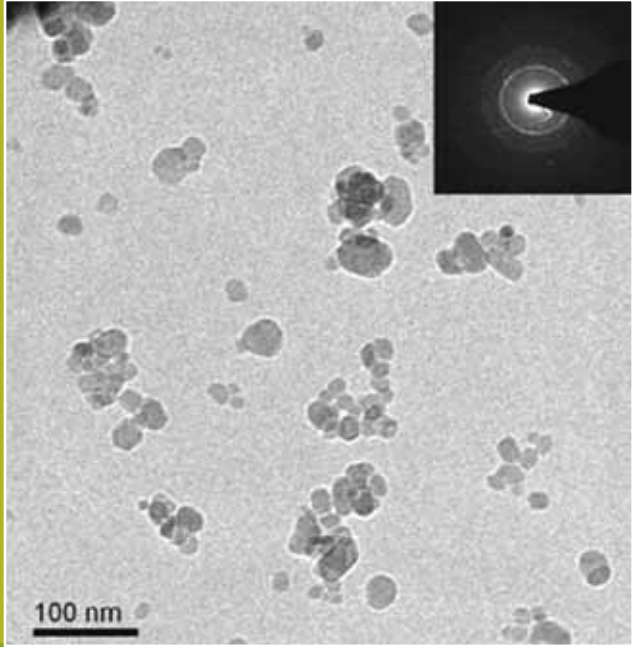
WORD OF ADVICE

Two roads diverged in a wood, and I took the one less traveled by, and that has made all the difference.

INNOVATION PHILOSOPHY

Innovate something which could make a difference.

Nanocrystalline Hydroxyapatite (HAP)



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0512 259 7057 / 7979 / 6648

MY INNOVATION

Nanocrystalline Hydroxyapatite (HAP), a bioactive and biocompatible material, is used as bone substitute material, in drug delivery systems and for coatings on implantable fixation devices in orthopedic, dental and other applications. We have developed a new, efficient and cheap method for producing nanopowders of hydroxyapatite. This will reduce the cost of product of such a vital product.

IMPACT ON SOCIETY

In the current market Nanocrystalline Hydroxyapatite is very expensive (Rs 700/gm) due to high processing costs. We have invented a relatively cheap (selling price Rs 140/gm) and efficient method for synthesizing nanocrystalline hydroxyapatite. Our process works at room temperature, which is extremely crucial to maintain the nanocrystalline nature of the HAP as well as minimizing the energy requirement during the processing. The reduced cost of HAP will bring down the cost of orthopedic devices and make the orthopedic surgery affordable even to the common people.

THE SPARK

The idea came to me during my M. Tech. thesis work. Studying and researching on them made me realise that why not find a much cheaper and affordable mode so that everyone can access it. Rather than concentrating such high level treatments to the rich, it should actually reach the common people too.

YOUR ENTREPRENEURIAL JOURNEY

One of my friend's Prem Prakash and me jointly started a company named Cenogen Materials Pvt. Ltd. in 2009. After that we got incubated at IIT Kanpur. Presently we are operating from SIIC, IIT Kanpur. Right after I conceived the idea, the research on it continued. Having started a company on our own, it helped us more in realizing our dreams.

ASSOCIATION WITH TePP

I came to know about TePP from our incubation center at IIT Kanpur. I applied for a project named, "Synthesis of Nanocrytalline HAP and it's Sintered Compact" and luckily I got the chance to be associated with TePP. I also participated in a training program organized by TePP in Mumbai. The association and support offered by them was of great help to us in making our venture move ahead.

RECOGNITIONS/AWARDS

- First in 'Ideaz-07', a business plan competition organized by E-cell, IIT Bombay.
- Second in 'IIPC 2007-2008', a business plan competition organized by EDC IIT Roorkee.
- Third in 'Megabucks-2008', an international business and entrepreneurship festival, IIT Kanpur.
- Third in 'Indian Innovation Pioneers Challenge 2008', a business plan competition jointly organized by Intel and Department of Science and Technology.

PATENT STATUS

I have applied for Indian patent.

FUTURE PLANS

My innovation is now a product of Cenogen Materials Pvt. Ltd. I want to make it more popular and increase its reach. I want people to realize its benefits. The product should reach the end users so that they can utilize the maximum from it.

WORD OF ADVICE

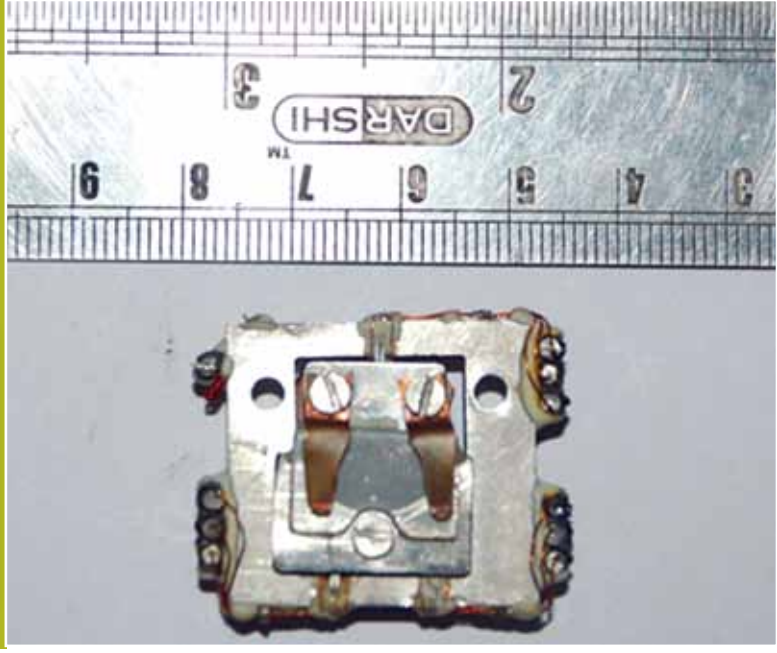
Think in your own way

INNOVATION PHILOSOPHY

Innovation for people.

A 2-Dimensional Nano-Positioner Device

MR. REETESH SINGH
S-1, SIIC, IIT Kanpur
Kanpur-208016
941551116



MY INNOVATION

The technology is a 2-dimensional nano-positioner device with complete control electronic and computer interface. Nano-positioners are being used in photonics, MEMS, semiconductor & biomedical industry, microscopy etc. A number of two dimensional nano-positioners are available in the market, but they are bulky, complicated and expensive. The current invention is a new way to generate nanometer resolution (<50 nanometer) motion in two dimensions by using 'bimorphs'. This makes it possible to have all three degrees of freedom in two dimensions, namely, X, Y, and angular. Use of bimorph made it possible to make compact, light weight (<25 grams) and low cost 2-D nano-positioner. Design is such that it has no moving electrical connections and when not in operation (after the desired movement of sample), the positioner has no voltages 'ON' which eliminates unwanted addition of mechanical and electrical noise due to unwanted voltage noise.

IMPACT ON SOCIETY

The major advantage of this device over existing ones in its category is its compactness and cost effectiveness. The product also reduces the unwanted noise. Light weighted, the product has high efficiency too.

THE SPARK

The idea struck while I was a student and working with Professor Anjan Kumar Gupta. We were working with Scanning Tunneling Microscope (STM, used for scanning samples in nanometer resolution) and felt a need of sample positioner which could be used in vacuum at cryogenic temperature. The need for such an aspect made me come up with such an initiative.

YOUR ENTREPRENEURIAL JOURNEY

It started from my lab and with heated informative discussions in our hostel rooms with colleagues and faculty members. The talk made me come up with the ideas. I developed the few ideas having commercial potential and formed a group of likeminded colleagues. After registering the company, we started from IIT Kanpur's Incubation centre (SIIC).

ASSOCIATION WITH TePP

The support from the TePP helped me a lot. The grant provided by them only made me realize my dream. It made me convert the idea into the prototype form. The support from TePP has made me realize my venture. Without their support this would not have been possible.

RECOGNITIONS/AWARDS

We were among the top 28 technologies, at the Lockheed Martin-DST India Innovation Growth Program 2009. We were also the finalists at Intel-DST India Innovation Pioneers Challenge 2009.

PATENT STATUS

The Indian patent is pending.

FUTURE PLANS

I want to convert the prototype into a commercial product. I want to launch the product in the market. Subsequently the work on other related products will also be started. We expect to make it a success in the commercial market as well.

WORD OF ADVICE

Have a passion for your idea but don't get obsessed with it.

INNOVATION PHILOSOPHY

"Technology" a tool for goodness.

Unique rat/mouse Repellent

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MY INNOVATION

A unique rat/mouse repellent, usage of which for a few days can keep way rats/mice for a long period from the surroundings. The repellent has the power to make the house free from mice for a long time.

IMPACT ON SOCIETY

The innovation can create wide impact in various fields. Millions of dollars worth damage is created every year around the world because of rat/mouse menace. The product is very useful for the Food Industry and also the Hospitality Industry.
The social significance of the product comes in controlling rat/mouse menace which spread fatal diseases and destroy valuable food. India being a country closely associated with nature, the insects and mice are an integral part of it. Such a product is of great use to the country especially when the rats and mice are turning as a big menace for the people.

THE SPARK

Rats entering my vehicle were the prime reason for the quest for this innovation. The report on rat menace is prevalent in the country since long. But when it affected me, I realized the need for a solution for the problem.

YOUR ENTREPRENEURIAL JOURNEY

The primary concern about the innovation was to involve a product that could be used in any condition and can bring about long term results. The product was tested in open areas, agriculture fields, houses, restaurants, coconut trees etc., each time improving to its best . The toughest part was in marketing the product and reluctance of people to accept a product with a very different philosophy.

ASSOCIATED WITH TePP

The association with TePP program was of great support in my ventures.

PATENT STATUS

The patent is pending. It has been published in patent journal and is still undergoing final evaluation.

FUTURE PLANS

Refining the product better and increasing the user-friendliness level of the product, also evolving a strategy for improved marketing.

WORD OF ADVICE

Scope for innovations is all around in every field, it's about keeping yourself open.

Vehicle Driver Monitoring System

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MY INNOVATION

The innovation is vehicle driver monitoring system. While driving the vehicle, if the driver falls asleep or driver goes unconscious or gets heart attack or if the driver has consumed alcohol and the vehicle is not steady, first a buzzer alarm is given and hazard warning light flashes. If the driver does not wake up within 2 seconds, the vehicle stops automatically with hazard warning light.

IMPACT ON SOCIETY

This is very useful in the circumstances like when the driver falls asleep or the driver goes unconscious or gets a heart attack or if the driver has consumed alcohol. Even if the accident takes place, the driver monitoring system will switch on and the impact will be less and life of the passengers can be saved.

THE SPARK

I thought to come up with this innovation about three years back in 2007. The rising number of accidents need to be curbed especially when the cases of drunken driving is increasing to a great extent.

YOUR ENTREPRENEURIAL JOURNEY

I am an automobile enthusiastic. As I know the wiring diagram of new generation fuel integrated vehicle I could add this system to the existing wiring diagram. Right from the conception of idea, I was able to move ahead. With a lot of research, I designed the system for future use.

ASSOCIATION WITH TePP

I attended a 5 day program at Technopark, Trivandrum in January 2008. Attending that helped me in getting associated with them. I could collect the TePP scheme and it really helped me in going ahead with my venture. Technopark has helped me a lot in my journey of innovation.

PATENT STATUS

I have applied for patent.

FUTURE PLANS

Firstly, I want to make the working model to test drive. I want to reach it to the end user so that everyone takes advantage of it. The device should help in reducing the number of accidents in the society.

WORD OF ADVICE

If any idea strikes, for assistance and improvement, contact the TUC center near you.

INNOVATION PHILOSOPHY

Added safety for the vehicles especially for the existing various safety systems of vehicle.

Digital Controlled Precise Dispensing Valve for Liquids

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MY INNOVATION

The invention is a digital controlled precise dispensing valve for liquids under gravity flow. It will replace today's concept of two-stage flow-rate by introducing new technique of single (maximum possible) flow-rate and multiple dispensing packets (quantities) down to a single drop weighing fraction of a gram. The new system is 100% drip free and having wide range of dispensing from one single valve. There is no need to calculate in-flight weight/ in-air weight and gives a new property to valve "Least Count" besides "Flow-rate". Simple gravity force is sufficient and can be applicable to wide range of liquid viscosity and chemical properties, machined out of SS 316 and teflon seals. The digital controlled valve along with its new control algorithm can be integrated with user application software. This will derive several applications by interfacing the valve actuation and other instruments like electronic weighing machine, mass flow meter, pH measurement etc. as the case may be. This will lead to development of machines / systems / plants that are automatic and may use robotics in certain applications.

IMPACT ON SOCIETY

The system helps in recurring savings on liquid materials while consumed in process or packed. It saves on number of valves and control units required for covering wide range of liquid dispensing and hence reduce number of machines. It saves space for machines / systems / plants, piping and saves carbon emission as well. The system will use less steel to manufacture valves and other related accessories.

THE SPARK

I had taken up the responsibility of turnkey automation for restoration of a failed plant that was newly erected. This was a formulation batching production plant having hundreds of raw materials. The plant was using approximate 500 odd valves, 2 for each individual chemical. The valve design itself had gross mistakes due to which a newly automated plant could not start functioning. The best way to save the cost of replacing 500 odd valves was to design a new valve that will do the job of 2 valves and bring down the count of valves from 500 to 250. The client was expecting to get the design of spare parts for machining to save further and expecting me to integrate them back and take responsibility of turnkey automation. This could not work as a viable proposition. The client had already made a loss of ₹. 1.5 crore and by importing a new system spent thrice of earlier losses which I could have done in less than ₹. 1 crore.

YOUR ENTREPRENEURIAL JOURNEY

At 22, I aimed at executing automation projects single handedly, the knowledge of the fine details at each stage was of utmost interest to me. Having a background in Instrumentation engineering I needed to upgrade myself for embedded design and programming. Having done this the application software development inclusive of interfacing to intelligent hardware attracted me equally. I started online LED display systems for Railways. The first system was developed in my 500 sq. feet residential block and installed in April 2002, that is still in use at Mumbai CST working round the clock. Many other products and by-products got developed due to this fully automatic online display system. Now, I would like to take it forward by setting up professional infrastructure and investment.

ASSOCIATION WITH TePP

I came to know about TePP because of CIIE, IIM-Ahmedabad, where I was selected as one of the finalists. I had purchased only one weighing scale and conducted my trials in my well-wisher's plant. This was not sufficient to satisfy the clients, but I was lucky enough to get a client to support me. The basic need of expensive instruments and attempt to make it a complete automation system was possible only due to TePP. TePP appreciation and funds also gave me recognition in the industry. A European magazine dedicated to valve technology published news and appeal for investment in which I could proudly mention of TePP support.

PATENT STATUS

Have obtained Indian patent. The proposed modifications will be applied for global patent.

Flywheel for an IC Engine, based on Magnetics

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MY INNOVATION

A flywheel for an IC engine, based on magnetics. The exchange of energy with a magnetic field, which can be spatially customized, is the key to it. The magnetic field has the power to store excess power stroke energy, which adds to the advantage. This excess power is slowly released during the cycle to compensate for the lack of power in the rest of the cycle.

IMPACT ON SOCIETY

With energy being consumed in huge amounts in our country, energy conservation is the need of the hour. The use of magnetics in exchange of energy is a good method which is still not noticed by many. This innovation reduces engine vibrations considerably and thus helps the society as well.

THE SPARK

Well, it was just an idea. I was always fascinated by high power Neodymium magnets. They always attracted me and studying about them was of great interest to me. I used to spend time on knowing about what all can be done with these magnets. Putting them in all kinds of places in mechanisms turned out to be a very interesting activity for me. Slowly studying on them, made me realize this concept of exchange of energy.

YOUR ENTREPRENEURIAL JOURNEY

Understanding its various aspects made me come up with this idea. Then the development of the idea was the later stage. This idea is currently being prototyped. Within few months, the first prototype should be ready.

ASSOCIATION WITH TePP

TePP has always helped in developing my idea. The association has been very helpful. The project could not have come so far without their support. Both the staff at IIT-Mumbai, Prof. Amarnath, and all the staff in New Delhi have been very supportive. The association has made be stable with the project both financially as well as with connecting me with the right people.

RECOGNITION/AWARD

I have published the work in NaCoMM07, and NaCoMM09, and hopefully will publish it soon in a journal.

PATENT STATUS

Have patented it in the US. The patent is pending in India and Europe.

Design & Development of Indigenous drug on Diabetes Type-II

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MY INNOVATION

Diabetes mellitus is a serious chronic metabolic disorder that has a significant impact on the health, quality of life, and life expectancy of patients, as well as on the health care system. Diabetes is an important human ailment afflicting many from various walks of life in different countries.

Though there are various approaches to reduce the ill effects of diabetes and its secondary complications, herbal formulations are preferred due to lesser side effects and low cost. It is estimated that there are approximately 33 million adults with diabetes in India. This number is likely to increase to 57.2 million by the year 2025.

AIMS & OBJECTIVES

The drug after being optimized will activate the body tissues of the pancreas. Taking into account our original idea involves the component herbal indigenous drug which can correct the metabolic disorder and prevent the patient from diabetes .The drug will bring a great achievement by correcting the metabolic disorder and activating on the beta cells of the Islets of Langerhans. Accordingly, the innovator has gone through the following process of implementation.

TECHNICAL STATUS OF INNOVATION

The implementations are guided by Ethical Committee and PRC of TIFAC. The recommendations of approval from TIFAC had already been obtained for the clinical trial on human subjects. It has been started by the innovator. The data generated on clinical trial on Diamax control group and the group which received Diamax as an adjunct to control drug should be compiled for preparation of final report.

The Standardisation of 'Diamax' is done at CSMDRIAS,Chennai. The progress of work of the project highly appreciated by the PRC members of TIFAC. Finally, the committee recommended that, as significant work has already been done with encouraging results the data generated so far should be compiled and draft report in the format prescribed by the committee should be submitted to TIFAC by 30th June 2010 after the approval of the Chairman.

Benefit-The proposed drug will act as pancreato protective, Immuno stimulatory and anti complicatory to the patients.

Further this drug will be a new hope for the diabetic as well as non-diabetic patients because this drug will be used in preventive and curative aspects with lesser side effects and low cost.

An Optical Probe to Visualize the Bores of Engineering Components

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MY INNOVATION

An optical probe that is used to visualize the bores of engineering components to check for defects. This is an affordable solution that makes the bore inspection process faster and easier.

IMPACT ON SOCIETY

The current borescopic solutions are costly and not user friendly. They are not so efficient and also are not effective as well. The borescope process at present is not proper and people are facing lot of problems with it. Our attempt is to make an affordable solution and make the system ergonomic to the end user.

THE SPARK

By looking at the current borescope users we found many of them were facing mainly two problems. The borescope inspection is a fatiguing job; it eats up the time and is not efficient as well. The current solutions are costly for smaller companies to adopt also which makes using of them not possible too.

YOUR ENTREPRENEURIAL JOURNEY

I started off my entrepreneurial career in software services then ventured into manufacturing automation. Currently, I am into engineering design services. It's been quite challenging all along. But still I am enjoying every bit of it. I expect my ventures to become successful.

ASSOCIATION WITH TePP

Association with TePP started off with my idea to develop a new optical device called Inspye. It was really great to be associated with TePP as it offered me support in making my venture attain success.

RECOGNITION/AWARD

Selected as a Proto.in finalist for the July 2009 edition.

PATENT STATUS

Not yet filed.

FUTURE PLANS

To sublicense the technology to manufacturers.

WORD OF ADVICE

Be persuasive and don't loose your heart.

INNOVATION PHILOSOPHY

Look for opportunities that if addressed would make some one's life better. That some one should ultimately become a paying customer.

Areca nut Climbing and Harvesting Robot

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MY INNOVATION

Areca nut is one of the popular agricultural products of the coastal districts of Karnataka and Kerala. But unfortunately the tedious task of climbing the tree has made people avoid plucking or harvesting the crop. The developed technology is a solution to this, Areca nut climbing and harvesting robot. The Robotic tree climbing device helps in easily climbing the tree and plucking them without any risk for the people.

IMPACT ON SOCIETY

The climbing and plucking of the Areca nut has remained as one of the burning problems associated with this agro product. The tedious and risky manual tree climbing activity to pluck or harvest the crop has made many stay away from it. The future generation is no longer coming forward for this risky activity thereby causing considerable concern to the growers about the future of this product. This technology is a solution to this thereby conserving nature to its core.

THE SPARK

The rising problem related to the product made me come up with such a solution for it. Seeing the concern, I thought to develop a device which can ease out the extra effort taken by the people to be with nature. I decided to address this issue by testing the innovative concept of developing a Robotic tree climbing device.

ASSOCIATION WITH TePP

I was supported under the Microtechnopreneurship scheme of TePP, DSIR to establish the workability of this concept. I was able to successfully develop a prototype model of the tree climbing "Robotic device" operated pneumatically and controlled electronically with the support from TePP. Without their support, I would not have realized this dream.

FUTURE PLANS

The project is now being considered for support under TePP Phase I for developing a higher version of the tree climbing device capable of performing all the operations involved in Arecanut plucking and harvesting. I want to make this product available to the end users.

Eco brakes/ Pneumatic Regenerative Braking

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MY INNOVATION

My innovation is eco brakes/pneumatic regenerative braking. The invention relates to saving the kinetic energy, which is wasted at the time of breaking by converting it into potential energy (compressed air) for reuse, thereby increasing the fuel efficiency of the vehicle.
Every vehicle in motion has some kinetic energy in it which is directly proportionate to its mass and velocity. The same energy is wasted in the form of heat generated due to the friction between the tyre and the road and the break-pads with the disc or the break drum.
The wastage is more in case of heavy and high powered vehicles like tractors and harvesters, dumpers working in mining areas.
Existing regenerative braking technologies are only 30-40% efficient. Eco brakes can achieve more than 80%.

IMPACT ON SOCIETY

It saves fuel and reduces the pollution. Cost effective, it conserves energy which is the need of the hour in our society. Saving money and resources, it helps in reduce emissions as well.

THE SPARK

The idea came to me long back. With the aim to conserve energy and also to deliver maximum output, I developed on the idea.

YOUR ENTREPRENEURIAL JOURNEY

The work is at the concept stage right now. Having conceptualized the idea at the first stage, I did research on it. Slowly deciding on the design, the work progressed. Currently, the work is ongoing in full swing.

RECOGNITIONS/AWARDS

I was recognized as innovative and having potential to reduce emissions and save fuel, and then copied by UK's Institution of Mechanical Engineers.

PATENT STATUS

Two provisional patents were filed, which have now expired.

WORD OF ADVICE

Look for other prospects first.

Financial Protection against Weather Volatility

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MY INNOVATION

Providing financial protection against weather volatility. This can be done through collecting weather information, forecasting and weather derivative/insurance. The protection is the need of the hour from this weather volatility.

IMPACT ON SOCIETY

Weather volatility is a concern for everyone today. With global warming emerging as a major issue which is eating up the world, the weather related volatility and natural disaster are bound to increase. Our innovation will help our customers in facing this situation. It will help in providing protection in such cases.

THE SPARK

The idea came to me in the year 2003; when I was assigned with a project to mitigate weather related risks of Indian farmers. The study made me understand the risks that caused due to the weather related issues. It made me think on finding out a solution for it. And at last I came out with such a system as a solution to it.

YOUR ENTREPRENEURIAL JOURNEY

After conceiving the idea in 2003, I started working on it entirely. I did the consultancy projects for agricultural and power companies. During their assignments, we made a business plan for weather risk. Our idea was well accepted and we got support from Ford Foundation, ICICI Lombard and SIIC in 2006-07. Since then we are executing the plan and the journey is progressing in a great speed.

ASSOCIATION WITH TePP

TePP assistance helped us to manufacture our own weather sensors to monitor data across country. The support provided by them can never be marked off. Both the financial and moral support offered by them helped in realizing my dream and making such a system become practical.

PATENT STATUS

I have applied for patent for weather sensor. The Indian patent system doesn't cover financial innovation.

FUTURE PLANS

I want to scale up the model across the country. The product should be made reachable to all. It should be commercialized in the market. The prospective end users should utilize the maximum from it. The masses should get the benefits of the product. I want to make this product reach everywhere, wherever there is a need.

WORD OF ADVICE

Persist and follow the rules of business initially.

Normal Scaife, Gem-Diamond Polishing Wheel

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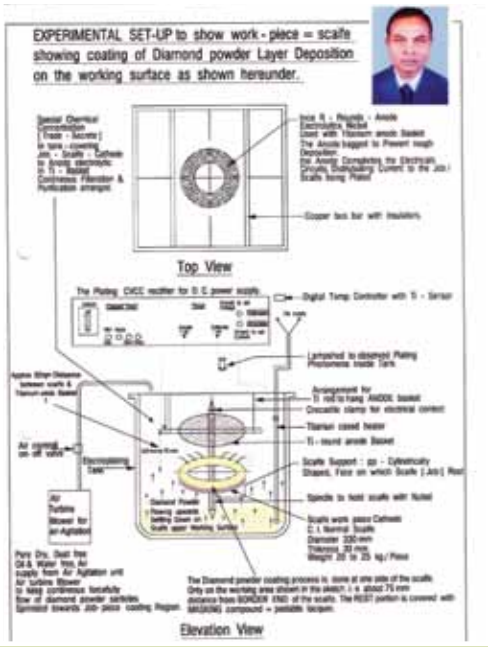

MY INNOVATION

The innovation is on Normal Scaife, i.e, gem-diamond polishing wheel for gem polishing application. It is as good as obtaining the best from the scrape. To make it practically possible, I made Special Purpose working process Model (SPM) using CDC = electro deposition composite. Diamond having multilayer-coating from Micron to MM. Thereby made the polishing-working surface as good as new or renewable for the artisans. It reduces the labour cost and also the overall maintenance cost.

IMPACT ON SOCIETY

With the SPM-CDC working model, thickness of diamond layer used for gem¬polishing can be increased from Micron to MM/ Multilayer as per size and quality suitable to gem-stone rough to be polished on that layer. Brightness of gem will be increased and minimization of cutting weight due to required uniform hardness of coating will lead to increase sales value of diamond in market. Artisans will work more rapidly/speedily due to uniformity of coating on working surface and thus overall production will naturally be increased resulting in more wages for artisans.

THE SPARK

Earlier the normal scaife wears away due to its use and is thrown away as scrape. I decided to make it usable once again and thereby applied my innovation work by using specially developed technique of coating surface of used scaife. Another major thing was that the artisans are paid on piece basis. So, I wanted to make a scaife in such a way that the coating and hardness will remain uniform throughout the use of scaife, thereby increasing the speed of the artisans and thereby the overall production.

YOUR ENTREPRENEURIAL JOURNEY

In the early years [1970 to 1995], Indian diamond polishing industries depended on imported machinery/ equipments/ process and even routine working tools were imported from Belgium/Israel etc. Overall the dealings were costly and dependable. I used to sit with artisans in the workshop and observed their practical difficulties and system of working. To overcome such matters, I made up my mind to develop our own techniques which would benefit both in timely delivery and payment in Indian Rupee. It also benefited by saving valuable foreign exchange. My idea is to make our artisans free from foreign made goods by breaking their monopolies.

ASSOCIATION WITH TePP

Initially, I myself associated with SINE/ IIT Bombay and utilized library/laboratory to test during trial and error method stage of the project. Professors/environment and cooperation even from other staff were excellent. I came to know about TePP from here and I received useful technical tips and moral support to complete my project work.

FUTURE PLANS

I want to make this product as maximum beneficial to the artisans and the Indian diamond industry. I will utilize my skill for hundreds of thousands of artisans (diamond polishers) involved in this field mainly at Navsari-Surat- Ahmedabad-Bhavnagar-Jaipur-Kerala, thereby helping them get better wages and being able to do qualitative work compared to European countries in forthcoming competitive market scenario.

The Indian Dishwasher

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MY INNOVATION

The innovation is the Indian dishwasher. The idea is to make a dish washer which is cheap, efficient and adaptable to oily and dirty cooking and washing conditions. It should be usable in commercial places such as restaurants and hotels; must also save water. Women should be able to provide more time and energy to their family or profession rather than wasting it in cleaning household vessels.

IMPACT ON SOCIETY

The common dish washer available in the market can't work on vessels with strong burn stains made during Indian cooking. Since no rubbing/scrubbing action takes place, stains are expected to get clean just by churning water action and detergent. It wastes a lot of water and consumes a lot of detergent. This technology solves the problem and helps them. The wastage of resources and prevented and effective output is obtained. Its cheap, water and energy efficient. It can be used for cleaning even a single utensil and can be attached on any existing sink. Saves time and effort of women on cleaning utensils.

THE SPARK

While washing utensils for the family some time back, I realized the need for such a device. An inventor friend of my husband helped me in conceptualizing the idea and designing the dishwasher.

YOUR ENTREPRENEURIAL JOURNEY

Though the work is currently at the conceptualizing stage, the designing of it required great planning. It had to be designed in such a way that it does the cleaning by the rubbing motion as commonly done by most households to clean their utensils. The major problem in designing such a device is the huge variety of shapes and designs of utensils used in a normal kitchen. Therefore it is very hard to design single equipment which cleans all easily and efficiently.

Two cylindrical brushes were placed vertically perpendicular to the base of the sink having hard bristles. The main body of the brush was made of flexible material like synthetic rubber, which is waterproof and provides ample flexibility to bend as per the shape of the utensil being washed. The two brushes rotate in opposite direction rubbing the bristles (made of hard nylon, similar to those used on toothbrushes and other tile cleaning brushes commonly used in homes) on the utensil placed on/or in between them. Thus the machine was developed on and conceptualized.

ASSOCIATION WITH TePP

TePP has been highly supportive and has provided much needed funds for the prototype development and designing of the equipment. They offered great support to me in making me realize my dream.

PATENT STATUS

Provisional patents were filed but application number is awaited.

FUTURE PLANS

I want to launch it in the market and I am searching for the required partners for it. I was to commercialize it so that it reaches the end users.

WORD OF ADVICE

Be determined and confident, opportunities shall open doors for you. Take criticism positively and use it to improvise your innovation through creativity.

Smart Patient Assistant (SPA)

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MY INNOVATION

The project Smart Patient Assistant (SPA) is my innovation. It is an innovation using the human eye movements as a communication module for personnel as well as electrical appliances.

IMPACT ON SOCIETY

The system is extremely useful for patients as well as aged people in old age homes, hospitals and even in homes to control various appliances using eye movements. The system could assist them in easily communicating with doctors, nurses or personal assistance by simply moving their eyes. The system has also been incorporated with a patient monitoring system that helps the doctors to take right decisions on their patients' conditions at the right time.

THE SPARK

Once I happened to visit an old age home, where I could notice several old people who were partially or fully disabled or having physical weakness. They were depending on others even for their small personal doings like switching off the lights, reminding them for taking medicines and so on. I could see that if these old people are aided with a simple technology for assisting them in doing some of their personal works at least, it will be a pretty good thing I could do for them. I thought to help them by building some user interface device that finally evolved as SPA. I also understood that this would be useful for all kinds of patients who are physically weak or disabled in hospitals and even in homes.

YOUR ENTREPRENEURIAL JOURNEY

I have been passionate in building up electronic hardware equipments since my childhood. This made me choose the world of electronics during my school days itself, where I could find many new amazing technologies and applications. While I was doing my B.Tech (ECE), I met people who really wish to do something new. I too had an ambition to become an entrepreneur. I have been continuously working hard with my small and innovative projects, implementing them in my own college as well as for others. I was spending much time in developing my circuits, along with my academics. During my college days, I could win a number of awards in national level and state level competitions and gain many appreciations from my faculties, friends and family who always supported me to become what I am now. The spark of entrepreneurship started flaring up when our group planned to set up a company called Artin Dynamics, based on the thrust area of Artificial Intelligence. The title of 'Best student award' for IEEE and other National Awards made me to take the charge of Chief Technical Officer of our company and has been helping me out to explore and implement many new technologies for the society.

ASSOCIATION WITH TePP

TePP was a turning point in my career. After meeting with TePP officials, I came to know how helpful is the government towards young innovators and entrepreneurs. The initial guidance, contacts and support gave us a good hold in the society as well as in the business world.

FUTURE PLANS

To improve and to commercialize the product with more innovations.

Thrombochek Test Kit

Dr. DILIP SHRINIVAS VELASKAR
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MY INNOVATION

The innovation is the thrombochek test kit, which provides a clinical laboratory test for detection of hyperactive platelets. It helps people to have easy routine health check and follow ups, especially those treated with antiplatelet drugs e.g. low dose aspirin in case of heart attack and/or stroke.

IMPACT ON SOCIETY

Presently, there is no affordable clinical laboratory test available for testing hyperactive platelets. These hyperactive platelets are a definite and an independent indicator of peripheral arterial disease as proven by various epidemiological studies.
These hyperactive platelets lead to formation of thrombus which may partially or completely block an important artery like the coronary or the carotid artery and hence result in sudden heart attack or stroke which may also be fatal. The thrombochek test kit makes it easier to identify such prone patients in the clinical laboratory by providing an easy rapid and affordable screening test. This prevents mordibity and mortality from heart attack and stroke.

THE SPARK

There are millions spread across the world who are put on antiplatelet drugs like aspirin without any baseline testing or a laboratory control due to lack of such a test. This sad fact made me strive to find a clinical laboratory test which can actually detect the hyperactive platelets. For the last 10 years, I was working on it to avoid such a situation, which is like treating diabetes without monitoring blood sugar levels. Moreover, it is also much more fatal as resistance or overdose or lack of response leads to fatal gastrointestinal bleeding or brain hemorrhage

YOUR ENTREPRENEURIAL JOURNEY

I have been studying platelet aggregation for the last forty years. Earlier, I had devised and described a microscopic test for direct measurement of hyperactive aggregated platelets in the 1980s.This was published in the American Journal of Clinical Pathology in 1982 and has been widely used in drug studies.
I was however desirous of making a routine screening test for this measurement available for the patients so that any clinical laboratory having a basic cell counter can perform the test and any laboratory technician can perform the test like a routine blood sugar or lipid check. With constant study, at last I could find this Thrombochek Test Kit, which finally brought out a simple easy to perform and affordable platelet aggregation test.

ASSOCIATION WITH TePP

The association with TePP has really helped a researcher like me with the much needed funds. As a medical practitioner, I had worked with renowned pathologist Dr.V.H.Salaskar from Mumbai, but though I used my own resources, I was always short of funds. Moreover, the constant and able guidance and support from the TePP outreach team has been a strong pillar for putting my efforts into a concrete shape.

PATENT STATUS

An Indian patent application has been filed and published and the PCT application has received a favorable search report.

FUTURE PLANS

The test kit should be made accessible to all the patients. The needy should be able to make maximum use of it. The test kit now is ready for commercialization for use in early detection of coronary and carotid artery disease to prevent sudden death and morbidity associated with these very high incidence diseases.

The Pollution Control Devices- Wet and Dry Scrubbers

MR. CHURAMONI SEN
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226012
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gmail.com
Mobile No: - 09415545085

MY INNOVATION

With pollution being one of the major problems of our country, there is an urgent need to have pollution control devices. The pollution control devices-(i) Wet Scrubber- (a) For vehicle- 3 wheeler diesel- It controls air and noise pollution. Processed with water, it is needed to be changed for continuous running of 4 hours.
(b) For D.G. Set upto 15 KVA- it controls air pollution (1st of its kind) and needed acoustic enclosure for controlling excessive noise as in existing.
ii) Dry Scrubber- For all diesel vehicles and tractor- it controls noise and air pollution (filters Suspended Particulate Matter-SPM, 1st of its kind).

IMPACT ON SOCIETY

For a better environment with air and noise pollution control, productivity increases in general. The devices are for more industrial growth and being labor intensive cheapest devices, these are ideal for developing countries, helpful for SPM and emission cut/reduce global warming and fuel saving.
(i) (a) For Wet Scrubber- Was made mandatory on Vikram diesel three wheeler with High Court order in 1999 in UP. Technology was given to Scooters India Limited in 1995.
(i) (b) UPPCB made it compulsory on D.G Set vide order dated 28/7/2009.
(ii) Dry Scrubber- Was made compulsory on 3 wheeler diesel in UP and in Uttarakhand in the year 2000 and 2003 and on all diesel vehicles in Uttarakhand in the year 2007.

THE SPARK

With the Supreme Court order dated 14th March, 1991, asking Government to look for cheaper device developed and implemented. I thought to device an affordable device which can control pollution, which is a major problem of the society.

YOUR ENTREPRENEURIAL JOURNEY

Availed VRS and utilized its financial benefit and became entrepreneur of Research-cum-Manufacturing unit in 1994. With successful results, I got encouragement from UPPCB and Transport Department, UP to go ahead with my venture. Later I got the pollution control devices developed and implemented.

ASSOCIATION WITH TePP

TePP was one of the sponsors of Inventors of India Workshop, 2008, organized by IIMA, where I was invited and participated for my project 'Dry Scrubber' and there I came in contact with TePP. Through them and monitored by SIIC, IIT, Kanpur, I got the grants to make my innovation a reality. The job was started on 8th December and it is halfway through with Noise Test on VRDE Test Track being passed on 18th December, 2009. On long run test, on road it proved successful for filtering SPM, 1st of its kind, while ARAI is interested on emission test only on Test Bed. The work is ongoing and I am sure it will attain success with the support from TePP.

RECOGNITIONS/AWARDS

The Chief Secretary, UP came out with a circular dated 27/08/2008 for waving off my arrears of Trade Tax of ₹ 5.8 lakhs + Interest and Government of UP reduced Rate of Sales Tax from 10% to 4% for Scrubbers used on vehicles and D.G. sets vide on successful result and on my persuation.

Dynamic Multifocal Spectacle Frame

DR. P.PARIKUMAR
The Light Eye Hospital, 39 D Bypass Road, Dharmapuri 636701, Tamilnadu.

MY INNOVATION

My innovation is a dynamic multifocal spectacle frame. It is a computer eye wear which is meant to save the eyes from computer vision syndrome. In addition to the regular spectacle lenses, this has got another set of mobile lenses meant to see the monitor. This is a trifocal spectacle frame having distant, near and intermediate power lenses.

IMPACT ON SOCIETY

This innovation will help the computer users of all ages especially those above 40.The near vision problem at 40 is called presbyopia. The presbyopic spectacles will provide 2 powers namely distant and near visions. But the computer monitor lies at a distance called intermediate vision zone which needs a third power in the spectacle. Right now the multiple power lenses available are progressive lenses. They too have a lot of problems like aberrations and distortions. My product will provide the ultimate comfort to the computer user.

THE SPARK

As an ophthalmologist, I see a lot of patients who want some or the other solution for their computer problems. Frankly speaking I wanted to see the monitor without strain on my neck. That is how this was born.

YOUR ENTREPRENEURIAL JOURNEY

Thinking on this problem, I thought to develop a concept. To find out a solution to this, I worked on with many ideas. With many patients complaining about the same problem, I realized the need for such a product. Then I developed the product and went ahead to patent this in India and in the US and got it patented in both the countries. Now I am trying to contact the right people to manufacture and market my product. Though it moves very slowly I have a confidence, that one day it will reach the entire world.

ASSOCIATION WITH TePP

Unfortunately after receiving the patent grant only I came to know about TePP. Really their support and advice after that counts a lot. They got me a grant from DSIR to make the prototype and thereby helping me take it to the next level.

RECOGNITION/ AWARD

My product was selected and short listed for Sankalp Award 2009.Unfortunately I missed the top 10.

PATENT STATUS

Indian Patent number	-	205711
US Patent number	-	US 7,316,478 B2

Embedded based Hardware Security Solution

MR. VIKAS SRIVASTAVA
Capital College, New Building, Techno park TBI EC, Room No -519, 15KM Old madras Road, Vidaya Nagar, bangalore-560036

MY INNOVATION

With most of the companies resorting to the web server to store data, the data storage has become easy and fast. But the main disadvantage of the entire process is that once there is a leak, one cannot assure its safety. Without backup it may also happen that the entire data is lost. The embedded based hardware security solution is developed as a solution to these problems.

IMPACT ON SOCIETY

Data security is one of the major problems which many of the companies across are facing. The innovation will offer data security on the fly for PC, server, data on the web server. The major problem of data theft and misuse complained by many of the major companies can easily be avoided. The system being an embedded one makes it more useful.

THE SPARK

Many of the companies in the industry have reported complaints of data theft and misuse. Based on the analysis from the industry reports, I thought to come up with a solution to these. After a lot of research and constant efforts, I could develop on a solution on threat for data theft and misuse.

YOUR ENTREPRENEURIAL JOURNEY

Developing on the idea, the main need was the need of support which would help us take our project further. An expertise team to consult on was also the need of the hour. This journey would not have been easy to take forward without the support from Technopark, Trivandrum. In association with DSIT TePP, it helped us in making our dreams come true.

ASSOCIATION WITH TePP

The association with TePP was one among the major boon for us in our journey. It helped us not only financially but the mentoring support was of great help too. Without their support, it would not have been possible to develop the product and to move it forward.

PATENT STATUS

Provisional was filled last year and now we are filling the complete application before 28th February, 2010.

FUTURE PLANS

The product should reach the end users. The public should know about it and they should utilize the benefits of it. The commercialization of the product is one of the major steps in future.

Multi Crop Portable Circular Oil Expeller

MR. BALKRISHAN LOHAR
Kirkeechoki , Post Dhundia, Tehasil Mavali, Distt. Udaipur, Rajasthan. Ph. 9829680107 (M)

MY INNOVATION

The innovation is a multi crop portable circular oil expeller. This machine is very useful for domestic application and small farmers. If a person wants to use pure and fresh oil this machine can be used in house hold kitchens as well.

IMPACT ON SOCIETY

This machine is very useful for the small farmers who want pure and fresh oil but yet something which is affordable. With the oil industry soaring heights, the need for such a technology was needed. Even small farmers can avail the facility.

THE SPARK

One year back, I came up with this idea of developing a device. Having seen the condition of the oil now, there was surely a need to develop on the quality of the oil. Especially the one, which can be accessible to all even small farmers.

YOUR ENTREPRENEURIAL JOURNEY

I have a workshop of my own. Having come up with such an idea, I slowly thought to develop on it. With research, I slowly developed on the concept of the product. After seeing the advertisement of TePP in the newspaper, I contacted the TUC Udaipur and my idea got the wings from then onwards.

ASSOCIATION WITH TePP

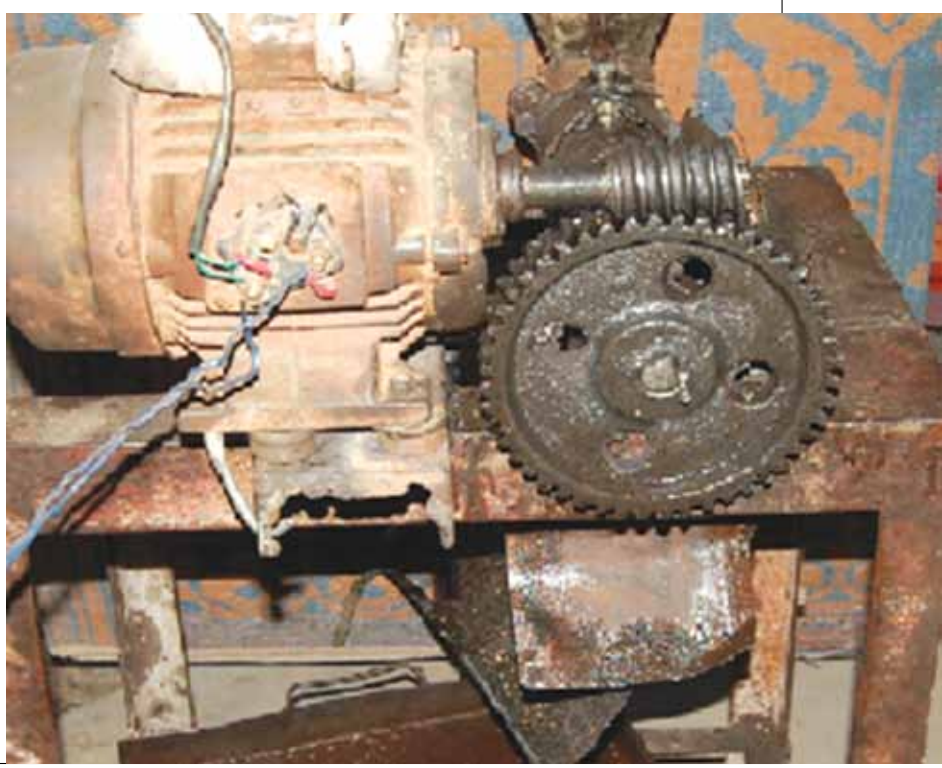
I was having only the raw idea with me. But the association with TePP made me realize my idea. After having a discussion with Dr. S M Mathur, Coordinator of TUC Udaipur, he encouraged me and asked me to contact Dr. Sanjay Jain, Felicitator of TUC Udaipur. He gave me the technical guidance and helped me in formulation of the proposal. With their guidance only, I could make it to this level.

PATENT STATUS

The patent has been filed.

FUTURE PLANS

I want to commercialize the product. The product should reach the end user and people should benefit from it. The product should reach the market and the benefits of the product should be made known to the people.



TUC PROFILES


INNOVATION BOOTHS

From left to Right, Mr. Ravindra Attri, Member; Mr. D.S.Kajal, Co-ordinator, Mr. Nagesh Kumar, Member ; Mrs Meenu Gupta, Member

Ambala

Mr. D.S.Kajal
Senior Technical Manager-Co-ordinator

Address
Electronics Research Development & Facilities Centre
(ERDC- HARTRON), Near IOC, G.T.Road, Ambala Cantt.
(Haryana) -133 001
Tel: 0171 2610418
Mob: +91 9416322143
E-mail: kajalhartron@gmail.com

NAME OF YOUR TUC

Electronics Research Development & Facilities Centre (ERDC-HARTRON), near IOC, G.T.Road, Ambala Cantt. (Haryana) 133 001.

STARTED IN

Started in May 2006.

TUC TEAM

Mr. D.S.Kajal
Senior Technical Manager- Co-ordinator
(Responsible for overall planning and execution of TUC activities).

Mr. Nagesh Kumar
Technical Assistant
(Assists TUC Coordinator in TUC activities like obtaining expert opinion, getting bank documents completed, visits to industry / departments/ organizations, etc.).

Mr. Ravindra Attri
Technical Assistant
(Assists TUC Coordinator in TUC activities like advertisement, organizing exhibitions/ seminars, meetings with potential innovators, etc).

Mrs. Meenu Gupta
Junior Programmer
(Handles all computer operations / activities related to TUC activities).

STRENGTHS

Our TUC is having NABL accredited labs and gives T&C facilities to innovators. We have been conducting Technology based Entrepreneurship Development Program (TEDP) for DST Govt. of India. It gives design and development help to entrepreneurs/ innovators, while having very good networking with engineering colleges/ departments/ organizations. All these services of ours are given in state of Haryana and adjoining states as well. These are our main strengths and competencies, which are very helpful in executing the TUC activities effectively.

FUNDING SUPPORT

Our TUC has funded many companies under the TePP funding. They can be classified as:

a) MicroTePP Funding: 6
c) Phase 2 Funding : About to fund 2 innovations.

COMPLETED INNOVATIONS/ PROJECTS

So far, we have five innovations, who have completed their projects and are likely to be commercialized shortly.

OTHER SUPPORT OFFERED

Development, test and calibration and other related helps are also provided to the innovators.

SPOTTING OF INNOVATORS

We release advertisements, distribute pamphlets, use banners, organize seminars/ exhibitions/ camps, write to organizations/ departments/ institutes, hold meeting with industries.

EVENTS/INITIATIVES

Together with TePP scientists, we have organized Innovation Funding Camps at Ambala, Rewari, Hisar(all in Haryana) ; at Moga, Mohali (all in Punjab) ; Baddi (Himachal Pradesh).These camps were very successful and helped us in taking the TePP program forward.

ASSOCIATIONS/TIE UPS

We have no associations or tie ups as of now. However, if innovators want we can help their innovations get incubated for selected projects.

ACCORDING TO YOU, INNOVATION IS

Innovation is dreaming, realizing and giving shape to rational, logical and practical ideas/ concepts.

Mr. Narinder Singh (Scientist 'C' & Convener TUC) , Dr. Pawan Kapur (Director CSIO & Chief Coordinator TUC), Mr. RC Arora (Scientist 'G' & Coordinator TUC)

Chandigarh

NAME OF YOUR TUC

TePP Outreach Centre (TUC), Central Scientific Instruments Organisation, Sector 30-C, Chandigarh - 160 030 (India).

STARTED IN

Started in July, 2008.

TUC TEAM

Dr. Pawan Kapur
Director CSIO & Chief Coordinator

RC Arora
Scientist 'G' & Coordinator.

Narinder Singh
Scientist 'C' & Convener

STRENGTHS

Central Scientific Instruments Organisation (CSIO), Chandigarh is a premier institution under Council of Scientific & Industrial Research (CSIR) network and has rich experience in Research, Design & Development and Human Resource Development. It has an excellent team of scientists, engineers and research scholars, who are specialists in the areas of strategic, optical, medical and agrionic instrumentation and manpower development.

FUNDING SUPPORT

CSIO has provided fund under TePP funding for the following companies:

a) MicroTePP Funding: Nil.
b) Phase 1 Funding:
Dr.Parikshit Bansal, Assis tant Professor, NIPER, Mohali (Punjab) for Laboratory Dialy sis Device.
c) Phase 2 Funding:Nil.

COMPLETED INNOVATIONS/ PROJECTS

One project, Laboratory Dialysis Device is in the final stage of completion. Test marketing of this innovation is going on. The details of the same are available at www.wonderlyzer.com. The innovator of this project is Dr.Parikshit Bansal, Assistant Professor, NIPER, Mohali (Punjab).

OTHER SUPPORT OFFERED

TePP assistance / guidance is provided to the innovators on the following:

•R&D/ Engineering consultancy
•Patent guidance and support
•Counselling
•Testing and trials support.

SPOTTING OF INNOVATORS

Advertisements are released in the newspapers of the region (English, Hindi & Punjabi). Also a brochure is sent to the technical institutions, universities, various government departments. The TePP web link provided on CSIO website has helped us in spotting the innovators. Word of mouth has been quite effective. In addition, innovators approach us for support through phone, email, letters and personal meetings.

EVENTS/INITIATIVES

A web link has been launched on CSIO website for the awareness/ information of innovators about TePP. A TePP brochure has been sent to various institutions for the information of the budding innovators. Advertisements have been released to the press for the information of innovators.

ASSOCIATIONS/TIE-UPS

We have a very good set up of R&D labs, workshops and laboratories in CSIO. We also have associations with other organizations where the innovators can be helped during the incubation period.

ACCORDING TO YOU, INNOVATION IS

'Innovation' is the creation of something new or improving upon what has been done before.

Dr. Pawan Kapur
Director CSIO &
Chief Coordinator

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TePP Outreach Centre (TUC)
Central Scientific Instruments Organisation
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Tel: 0172 2657190, 2657265
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Nagpur

Mr. P.S.Dutt
TUC Cordinator &
Scientist & Head
Business Development Unit,
NEERI

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Engineering Research Institute
(NEERI Nagpur),
Nehru Marg, Nagpur, 440020,
India.
Tel: 0712-2249999
Fax: 0712-2249900.
E-mail: ra_sohony@neeri.res.in,
URL: http://www.neeri.res.in

NAME OF YOUR TUC

National Environmental Engineering Research Institute, Nagpur.

TUC TEAM

Mr. P.S. Dutt
Scientist & Head, Business Development Unit

Mr. P.P. Godbole
Scientist, Business Development Unit

Mr. S.J.Dabe
Scientist, Business Development Unit

Mr. S.B.Wath
Scientist, Business Development Unit

Mr. P.G. Rajesh
Technical Assistant

Mr. P.M.Mude
Technical Assistant

Ms. B.Bindu
Jr. Steno

STRENGTHS

Our strength is our vision of leadership in environmental science and engineering for sustainable development. NEERI dedicates itself in the service of mankind by providing innovative and effective solutions to environmental and natural resource problems. We have leadership in environmental science, technology and management domestically and globally by working hand in hand with its partners. We maintain a strong and effective working relationship ensuring ecological health of all regions in India.

FUNDING SUPPORT

So far, NEERI has provided TePP fund support for:
a) Micro TePP Funding - Nil
b) Phase 1 Funding - 1 under process
c) Phase 2 Funding - Nil

OTHER SUPPORT OFFERED

TUC NEERI provides counselling to the innovators who approach the TUC. We also arrange lab visits, demonstrations and presentations by scientists. In addition, we conduct outreach programs.

SPOTTING OF INNOVATORS

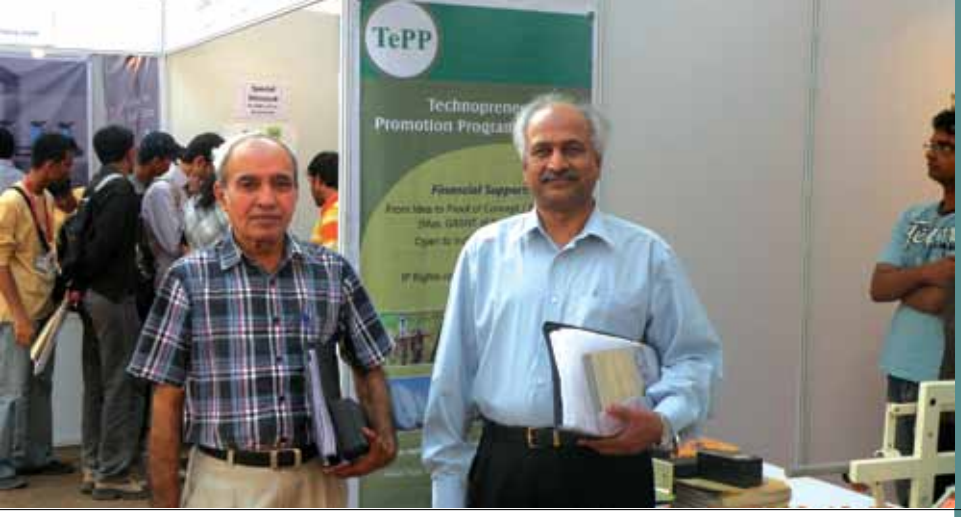
The TUC organized Innovative Idea Competition and facilitated a visit to NEERI for young entrepreneurs of IIM-Ahmedabad to spot budding talents.

EVENTS/ INITIATIVES

Two events were organized during the year by TUC NEERI to spot and support the innovators. Entrepreneurs in Residence (EIR) visited TUC NEERI in June, with a view to get the first hand feel of R&D in cutting edge areas of research in a laboratory environment, to have an exposure on the scientific process of working on live problems by scientists. Interaction was also held with scientists, and the gaps when lab research is transferred to field level were assessed.

At DG, CSIR and Head, TePP, DSIR, NEERI was chosen as venue for their lab visit. The objective of the program is to expose them to "lab to land" stages of innovation and technology development. The scientists at NEERI made the presentations on the various ongoing research on Microbial H2 generation, Methane from Landfill gas,etc. A field visit was also organised for the entrepreneurs to visit Demonstration Plant of solar based Electrolytic De-fluoridation at Dongargaon, Dist Nagpur.

'Innovative Idea Competition' for students was conducted at Industry Academia Conclave at YCCE, Nagpur in July, with a view to promote innovation culture, focus on industry perspective, and motivation towards entrepreneurship. The aim of the competition is to provide a forum to students to display their innovative ideas for the industry and innovation development of the industry or society.



Head TUC- Prof.Amarnath and Head TePP- Dr.A.S. Rao at TechFest 2009
TePP TUC participation at ROBOCamp Innovations event at Pune

Mumbai

NAME OF YOUR TUC

SINE TUC.

STARTED IN

July 2006.

TUC TEAM

Prof. C. Amarnath
TUC head
Ms. Poyni Bhatt
CAO
Ms. C. Krishnaveni
TePP- TUC Resource Person

STRENGTHS

SINE is a Technology Business Incubator (of which TUC is a part) that helps in nurturing tech start-ups from IITB. SINE, thus has the experience and is able to add value while looking at TePP proposals. Secondly, being located in the campus of the Institute can leverage the technology expertise and other resources that are available at IITB.

FUND SUPPORT

SINE has provided TePP fund for many companies.
a) MicroTePP Funding – 6 approved of which 2 received the funds.
b) Phase 1 Funding – 21 (from western region).
c) Phase 2 Funding- 3 approved for companies.

COMPLETED INNOVATIONS/ PROJECTS

Four of the TePP innovations have been completed/near completion and have got commercialized. They are of Mr. Ankit Mehta (Human powered Mobile charger), Prof.U.B.Desai (Remote Patient Monitoring System), Mr. Ajay Chandak (Solar powered Dryer and cooker) and Mr. Madhav Sawant (Glow Paint-POP tiles).

OTHER SUPPORT OFFERED

The TePP outreach centre being part of the SINE TBI, the innovators get publicity at events held at/by IITB including access to SINE network.

SPOTTING OF INNOVATORS

The enquiries come by phone and from the individuals who visit promotion of TePP initiatives by SINE at all events. Visitors can also submit their queries at SINE website (www.sineiitb.org).

EVENTS/INITIATIVES

SINE has conducted the following events in the past years.

- TechFest – Student festival where participants from across the country take part in technology competition, exhibitions where the number of visitors exceed 30,000 over two days,
- Barcamps- Gathering of entrepreneurs, mentors, investors, industrialists for free flow discussions and exchange of views/ideas on setting up of startups/ventures,
- NatGeo- 'Shape the future' program, a competition on innovative technologies,
- PANIIT- Exhibits where people from all IITs participate to showcase their activities,
- Innovations India at Pune, where innovators showcase their projects to panel of VCs, Angels, Technology Experts, Industrialists for validation and guidance,
- Avenues- Business Plan competition and showcasing event of the school of management where TePP initiatives are displayed and
- Exhibition for Innovations at World Trade Centre where TePP innovators are allowed to exhibit where visitors from across the globe visit/ participate .
- Besides coverages in Press/Print media as ET Now, BBC etc.

ASSOCIATIONS/TIE-UPS

Yes, if the innovators' products have sustainable business model and comply with SINE criteria, they do stand a chance for incubation at SINE. We also direct them to other similar incubators/centres that are willing to help support such innovations.

Prof. C. Amarnath
TUC Head

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FITT TUC Team

Delhi

Dr. Anil Wali
Managing Director, FITT

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and Technology Transfer
IIT Delhi, Hauz Khas
New Delhi-110016
Tel: 011 26857762
E-mail: mdfitt@gmail.com
anilwali@fitt.iitd.ac.in

NAME OF YOUR TUC

Foundation for Innovation and Technology Transfer (FITT), IIT Delhi.

STARTED IN

Year 2007

TUC TEAM

Dr. Anil Wali
Managing Director
Mr. K.K. Roy
Sr. Manager (Tech./Admn./ Incubator)

Roles: Our role is to undertake all measures to give adequate publicity and promotional activities for TePP scheme. We interact with all innovators showing interest in TePP and to receive/refine proposals. We ensure that we get clear proposals which are evaluated by a minimum of two technical experts and also inspect the working of models developed. We forward evaluated proposals with expert comments of TUC coordinator to DSIR and submit the UC/SE for each project separately on 31st March of the financial year. We also organize periodically, the Project Review Committee (PRC) meetings for the project entrusted to TUC to help the innovator overcome the technological problems in project execution.

STRENGTHS

FITT, IIT Delhi accepted TePP as a synergistic activity to address innovators and extend network support to submit ideas, which have a fair chance of success. Thus, mentoring by the IITD resources backed by the experience of FITT provides value addition at each stage of the project/ idea formulation, technical evaluation/ assistance at implementation stage and reaching the market. These greatly enhance the quality of mentoring/monitoring of TePP supported projects.

FUNDING SUPPORT

FITT, IIT Delhi has provided TePP funding for many companies. The details are as follows:

a) MicroTePP Funding: 3
b) Phase 1 Funding: 13
c) Phase 2 Funding: 2

COMPLETED INNOVATIONS/ PROJECTS

To date, we have four innovations/ projects that have been completed. They include Laboratory scale process development of environment friendly ink, Development of intelligent ground vehicle, Wireless threat assessment system and Snowbreeze ice air-conditioner.

OTHER SUPPORT OFFERED

Half day every week has been assigned for counselling the innovators showing interest in TePP. We check the proposals for completeness such as description of innovation with sketches/photographs, how it benefits the user, innovativeness compared to existing products, resources and capabilities to make a prototype, etc. We also evaluate the proposal and give his/her report, his past achievements, inspection report of the work so far done, innovators capabilities in design and arrangements made for fabrication and testing, justification for the cost estimated for review.

SPOTTING OF INNOVATORS

We give advertisements in the newspapers/magazine, posters/ pamphlets, and special coverage in newsletters, FITT Forum and FITT Bulletin and also through direct contacts. We also conduct seminars on innovation, entrepreneurship etc.

EVENTS/ INITIATIVES

As many as 23 camps and workshops have been organized at several institution to address the potential innovators on the salient aspects of the TePP program.

Prof Kincha delivering a talk at the one day workshop on Innovators Funding Camp through TePP

Surathkal

Mr Suresh Bhat
Chief of TUC

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PO Srinivasnagar-575025
Surathkal, D K District,
Karnataka
Tel: 0824 2477847
Mob: +91 9448130590
E-mail: directorstep@hotmail.com

NAME OF YOUR TUC

National Institute of Technology-Karnataka – Science & Technology Entrepreneurship Parks (NITK-STEP)

STARTED IN

August 2007

TUC TEAM

Mr. Suresh Bhat
Chief of TUC

Mr. Jaya Krishna
Finance Officer

Ms. Vimala
Documentation Assistant

STRENGTHS

Potential for evaluation of the innovation from business perspective is by virtue of our knowledge and good experience in developing startups through business incubation. A team of competent technologists/subject experts (from host institution NITK and neighboring technology institutions) are present to evaluate, counsel, guide innovators. Good network for support of essential services to innovators is available. We work with the motive of commercialization of innovators' projects right from the tie-up stage with the innovators aiming for optimum financial gain to innovators. Availability of portfolio of business incubation services is made sure, thus ensuring high success rate of conversion of innovator project to address a market need through a startup company.

FUNDING SUPPORT

NITK–STEP has funded a few companies in the following classification:

MicroTePP Funding	5
Phase 1 Funding	3
Phase 2 Funding	1

COMPLETED INNOVATIONS/ PROJECTS:

The project,"Multi-purpose mosquito trap", has been completed and is being commercialized under TePP Phase II program. commercialization of the technology is being worked with venture capitalists.

OTHER SUPPORT OFFERED

Developing a business concept of the funded innovation, technology support on need basis, patenting support, test marketing, development of business plan, management team (if innovator lacks entrepreneurial skills), commercialization of the output of innovation, mentoring and business formation and legal services for entering into agreements.

SPOTTING OF INNOVATORS

We conduct innovator camps, and network with institutes, industry, professionals, and consultants. We also spot innovators by organizing business plan competitions. Innovators can approach us directly through phone or e-mail or can even walk-in.

EVENTS/INITIATIVES

We have organized an Innovator Camp at Hubli in 2009 in association with Karnataka Chamber of Commerce & Industry, Hubli the goal of which was to popularize TePP scheme simultaneously among the industry and technology institutes (for offering Microtechnopreneurship scheme benefit to student innovators, research scholars, PG scholars). Head TePP Division and VC of Visweswariah Technology Institute at Belgaum as the Chief Guest attended the program. We conduct 2 Faculty Development Programs (2 weeks program, 40 faculty from different technology, management, Diploma, ITI institutions are covered) and about 5 Skill Development Programs (10 weeks program, 100 participants in total) in the region each year. In each of these programs a one day session is devoted to Management of innovation and apprising the participants about the TePP scheme of DSIR.

Trivandrum

Mr. K C Chandra sekhran Nair
TUC Coordinator
Technopark TePP
Outreach Centre

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Tel: 0471 2700222, 2441244
Mob: + 91 9447111244

NAME OF YOUR TUC

Technopark TePP Outreach Centre (T-TUC)

STARTED IN

July 2007

TUC TEAM

Mr. K. C. Chandrasekhran Nair
TUC coordinator, Technopark TePP Outreach Centre

Mr.Sreejith S.
Technical officer

Ms.Surya Thankam S.
Technical officer

Ms.Mary Thomas
Technical officer

Ms. Annie Moses
Jr. Officer, finance

STRENGTHS

We have the highest number of projects supported by DSIR. With the brand name of Technopark, we have strong panels of Technology Angels and Business Angels and a large number of professional institutions. We provide excellent counseling and guidance support to innovators in collaboration with Technopark TBI, NCIIE, TSECC and tie ups with other organizations. We release strong advertisements and programs for identifying large pool of innovators.

FUNDING SUPPORT

T-TUC have successfully funded many companies under the TePP funding classifications, as can be seen below:

a) MicroTePP Funding - 4
b) Phase 1 Funding - 19
c) Phase 2 Funding - 2

COMPLETED INNOVATIONS/ PROJECTS

So far, we have commercialized three innovative projects. They are MCARP by Mr.Sanjay Vijayakumar, Pedestal Wet Grinder by Mr.Shyam Kumar, SPARA by Mr.Nelvin Joseph.

OTHER SUPPORT OFFERED

We offer seed capital assistance to technology/product based incubation companies. We also have incubation facilities to promote and nurture innovative ideas. We also conduct online courses on entrepreneurship, training programmes etc.

SPOTTING OF INNOVATORS

By conducting workshops, awareness camps, faculty development programs, websites, blogs, e-learning portals, participating in school science mela, etc. We do a good job at spotting innovators.

EVENTS

T-TUC has conducted and initiated a lot of events so far. They are listed below:

(1) Technopreneur
(2) Igniting Young Minds
(3) Faculty Development Pro gramme
(4) Be a Job Creator Programme
(5) I am an Entrepreneur Campaign
(6) Bar Camp Kerala Seminars & Workshops in tie up with EDII
(7) E-Learning Courses Innovation Labs (pre-incuba tion facility)
(8) TSECC Software Engineering TechTop - All India Engineer ing Students Project Exhibition Program
(9) Establishing IEDC (Innovation and Entrepreneurship Develop ment Cells)

ASSOCIATIONS/ TIE-UPS

We are associated with Technopark TBI, Trivandrum, Indian Telecom Innovation Hub TBI (ITIH TBI), Koratty, Trichur, innovation Lab, Kochi, NIT TBI, Kozhikode IEDCs and various TBI Extension Centres and TTBI Virtual Centres.

Innovation Booth at International Conference on Business Incubation

Trichy

R. M. P. Jawahar
Executive Director,
TREC-STEP

NAME OF YOUR TUC

Tiruchirappalli Regional Engineering College - Science and Technology Entrepreneurs Park (TREC-STEP).

STARTED IN

1986

TUC TEAM

Mr. R.M.P. Jawahar
Executive Director, TREC-STEP and President ISBA

Mr. V. Subbiah
Program Coordinator

Mr. A. Sivakumar
Project Coordinator

STRENGTHS

TREC-STEP, the first science and technology entrepreneurs' park and business incubator promoted in the country in the year 1986, has now emerged as a reputed model development interface institution, with remarkable performance. Promoted by the Department of Science and Technology, Government of India, Government of Tamil Nadu, National Institute of Technology, Trichy along with Central State Financial Institutions, it is now a recognized model for new Indian incubation industry, having received many prestigious awards and recognitions. TREC-STEP is also the first DSIR TePP Outreach Centre in the country. With the TePP objective of unearthing the latent innovation potential of individuals, the TUC at TREC-STEP has energized and leveraged the innovation delivery system.TREC-STEP has also been able to dovetail this TePP innovators with seed funding and other innovation delivery programs. TREC-STEP has also worked with a number of international developmental organizations in innovation development projects, such as UNDP, UNIDO, European Commission, the World Bank, etc.

FUNDING SUPPORT

Our TUC has funded many companies under the TePP funding. They can be classified as:

a) MicroTePP Funding:	3
b) Phase 1 Funding:	20
c) Phase 2 Funding:	4

COMPLETED INNOVATIONS/ PROJECTS

- M/S Glo Tech.Organics
- M/S Pure Tech India
- M/S Adhithya Medicals
- Birmaha Machine Tools
- Bharat Agro Products

OTHER SUPPORT OFFERED

TREC-STEP provides a rich mix of software and hardware development package for creating successful innovative ventures. In the soft side, synergizing the innovation support TePP scheme of DSIR helps in attracting innovative individuals and realize their dream products in to proto-types. A Technology Angel Network of nearly 25 academicians from various engineering departments of NIT Trichy provide the guidance, evaluation and innovation development support for innovators.

TREC-STEP has not only planned and implemented special events for popularizing TePP program, but also put in focused efforts to integrate and disseminate the DSIR supported TePP program to a wider section of the community. It has also built partnerships with several reputed institutions in the region to attract more innovators and help them to overcome their innovation challenges by facilitating them to access and fruitfully utilize the vital funding support provided by DSIR. In addition to this a plethora of business incubation hardware support is also provided. TREC-STEP has a built up space of 40,000 sq.ft. of 25 Nursery Incubation modules. These incubation modules provide entire support for companies and reduce their risk initially. Having promoted nearly 186 new ventures, it is the highest number promoted by any incubator in India.

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Varanasi

Dr. Pradeep Srivastava
Coordinator

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NAME OF YOUR TUC

TePP Outreach Centre, Institute of Technology, Banaras Hindu University, Varansi

TUC TEAM

Dr. Pradeep Srivastava & Dr. P.K. Mishra
Coordinators.

Mr. Atanu Chakravorty
Secretarial Assistant
Mr. Amit Sinha
Computer Operator
Mr. Suchit Verma
Scout / Fecilitator
Mr.Gopal Srivastava
Office Attendant
Mr. Rohit Chauhan
Office Attendant

STRENGTHS

We are strong in Research & Development and Technology Innovation, upgradation of findings and their subsequent relocation to the respective domains. To remain high in the confluence of the age of innovations, the IT, BHU is devoted to the cause of developing strategies that leverage their existing strength to support Technology Led Economic Developments (TLED). At least a dozen faculty members of the institute in particular and BHU are equipped with the required expertise. The coordinators are actively involved in various entrepreneurial activities and programs. Coordinators are also technical advisors to few prominent industrial houses of the country, viz., Alkem Lab. Ltd., Mumbai; Gharda Chemicals Ltd., Mumbai and TRCC, Gurgaon etc. Through our regular contact to various rural regions of erstwhile backward region of Eastern UP, Bihar, Jharkhand and neighboring region of MP, we come in contact with all the potential innovators of the region. The technical problems of the innovators are mostly solved by the experts of different branhces available in the largest university of India.

FUNDING SUPPORT

We have provided TePP fund support for 14 innovations so far under the following classifications:

MicroTePP Funding:	3
Phase 1 Funding:	11
Phase 2 Funding:	NA

COMPLETED INNOVATIONS/ PROJECTS

Three innovations are selected for TREMAP of TIFAC for commercialization as innovators are not capable of full scale commercialization. They include Baghel Dental Devices, Dental Tray and Suction Machine and Non-electric Water Level Indicator.

OTHER SUPPORT OFFERED

We do provide all possible technical assistance for refinement of their prototype and also assist them in market research of the potential product.

SPOTTING OF INNOVATORS

Awareness campaign, Innovator's Camp and Innovator's meet are organized regularly and advertisement through electronic and print media helps in spotting the innovators. Every weekend, the coordinators organize various entrepreneurial programs in schools/colleges/gram panchayat of remote areas to contact potential innovators.

EVENTS/ INITIATIVES

We organize interactive programs at village panchyat, block officers and colleges of the region. We conduct discussion program through Cable TV. The Forum for Peoples' Knowledge provides us platform to discuss TePP activities with the persons engaged in traditional/ regional knowledge based enterprise. Related activities at the Institute viz. E-Cell, OLPE also provide suitable platform.

TUC Team

Kharagpur

Mr Dhrubes Biswas
Coordinator

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NAME OF YOUR TUC

Regional TePP Outreach Centre (RTUC), IIT-Kharagpur

STARTED IN

2007

TUC TEAM

Prof. Dhrubes Biswas
Cordinator
Mr. Punit Saurabh
Junior Research Fellow (JRF)
Mr. Subir Biswas
Junior Project Assistant (JPA)

STRENGTHS

The Regional TePP Outreach Center at IIT-Kharagpur has seen rapid rise in entrepreneurship and innovation related activities within a short period of time. The TUC initiative has been fully supported by the IIT academia. The proof of the support can be seen from the initiation of a dedicated School of Engineering Entrepreneurship (SoEE) at the esteemed institute. TIETS, TePP and TBI support is rightly assisted by a chain of government grants and loan support under the MSME, TREMAP and associated finding programs for technology based entrepreneurship training programmes under DST. TePP Outreach Centre also benefits with the presence of an international inter-linkage for providing venture creation platform to stakeholders under the Global Venture Lab (GVL) propelled by leading universities.

FUNDING SUPPORT

Under the following classification, TePP funding has been provided to many companies. The classification and figures are mentioned below:
MicroTePP Funding: 10
Phase 1 Funding: 20
Phase 2 Funding: In process

COMPLETED INNOVATIONS/ PROJECTS

Till date, 3 proposals are in the advanced stages of completion. One proposal has also been put to commercialization as of today. The projects are P2 Statcom by Mr. Shwetank Jain, ATM based Electric Billing system by Mr. Biswanath Dey and Electric Fencers by Mr. Partha Mullick.

OTHER OFFERED SUPPORT

The RTUC at IIT-KGP assists the innovator through direct mentorship support at the regional outreach centre while providing them with associated benefits and networking connections. The presence of other grants and loan programs effectively helps in taking the innovation from the concept to the commercialization level. The efforts are geared to assist the innovators to leverage as much support as they can. The TePP innovators are also provided with wet incubation i.e. STEP incubation facility present at IIT-Kharagpur, once they qualify for TePP funding. This helps the TUC in constant monitoring of the prototype being developed by the innovator.

SPOTTING OF INNOVATORS

Various means are used to advertise the presence of the funding program at IIT–KGP through newspaper advertisements, meetings and programs, competitions etc. Prospective innovators who approach us are mentored through a series of discussions with the faculty and staff members. Once the process of ideation is effectively over, he/she is asked to apply for funding support. The prospective innovators can directly call or come to the RTUC as well.

EVENTS/INITIATIVES

TePP has assisted the Regional TePP Outreach Centre in conducting the Innovation Awareness camps. We have conducted motivational camps in North Bengal and Orissa which has led many innovators from those places to apply for TePP funding. TePP frequently assists IIT-KGP to sponsor product design and B-Plan contests as well and assisting in conducting various programs.

Dr. Kiran Sharma-centre right,Mr. S.M. Karuppanchetty-centre left,Mr. Aravazhi-second from right, Ms. Rama-extreme right, ms. Hyma-2nd from left, Mr. Pandurangiah-extreme left

Awareness camp conducted by ABI at Thapar University, Patiala (Bottom)

Hyderabad

Dr. Kiran Sharma
TUC Head

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NAME OF YOUR TUC

Agri-Business Incubator @ ICRISAT.

STARTED IN

September 2003

TUC TEAM

Dr. K.K. Sharma
Principal Scientist (Biotechnology) & Head

Mr. S.M. Karuppanchetty
Deputy Chief Operating Officer (ASP) & Sr. Manager

Mr. S. Aravazhi
Deputy Manager

STRENGTHS

We support agri business ventures such as seed ventures, farm ventures, agri biotech ventures, innovation ventures and biofuels ventures. Incubation services in the form of R&D infrastructure, office space, business planning, business development and funding facilitation are provided. Scientific competence on dryland crops like sorghum, pearl millet, pigeonpea, chickpea and groundnut from host institute is also one of our core strengths.

COMPLETED INNOVATIONS/ PROJECTS

So far, no innovations or projects have been completed.

OTHER SUPPORT OFFERED

We provide incubation services such as business planning, business consultancy, industry networking, infrastructure facilities, scientific expertise, promotion and publicity. We also have other funding sources like Seed Grant Fund of Technology Development Board, Department of Science & Technology, Government of India, and venture capital funding.

SPOTTING OF INNOVATORS

We release regular advertisements and also conduct innovators' camp. Also, innovators can call us up and come for discussions.

EVENTS/ INITIATIVES

We have not conducted any events as of yet.

ASSOCIATIONS/ TIE-UPS

Yes, incubation facilities are available for innovators based on their need and our competence to incubate them.

ACCORDING TO YOU, INNOVATION IS

Innovation is any technology / product or service which does not exist currently, having good market potential with sound technology backup. It is also any technology/product or service which is more efficient or less expensive than the existing one, having good market potential with sound technology backup.

Gathering at MAIT

TePP Presentation at MAIT (Bottom)

Noida

NAME OF YOUR TUC

Science & Technology Entrepreneurs Park, JSS Academy of Technical Education, Noida.

STARTED IN

January 2008

TUC TEAM

Dr.Raghunandan Rajamani
Chief Executive

Mr. Prabir Kumar Das
Deputy Manager

STRENGTHS

The JSSATE-STEP has a focus in ICT and manufacturing technologies. The strengths of the organization are in nurturing innovations to reach markets through an established incubation process with supplementary functions such as Mentoring, Seed Funding and Infra support.

FUNDING SUPPORT

We are in the process of funding 4 proposals in Phase-1 funding.

COMPLETED INNOVATIONS/ PROJECTS

We have not commercialized any completed innovations or projects so far.

OTHER SUPPORT OFFERED

We provide mentoring support for business growth, networking, access to laboratories and testing equipments, preparation of business plans, strategic management assistance.

SPOTTING OF INNOVATORS

Release of newspaper advertisements, hosting of programs on our web page, distribution of leaflets etc. are some of the methods we follow to spot innovators. Innovators can apply through regular process for incubation facility at our center. The innovators can approach the TUC centres directly over phone, e-mail or even walk in as well.

EVENTS/ INITIATIVES

Media coverage was given in the local newspapers. Seminars and workshops have been conducted at several engineering institutions in the region. The workshops and seminars have made us rope in many innovators to make the maximum use of such a platform.

ASSOCIATIONS/TIE-UPS

So, far no associations or tie-ups have been made.

ACCORDING TO YOU, INNOVATION IS

Innovation to the TUC at STEP means a creative idea that can offer meaningful solutions to problems that are commonly faced by innovators and the product/technology services a market needs,which is yet to be serviced or needs supplements to be serviced.

Dr. Raghunandan Rajamani
TUC head

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A Three-day activity , "IT'S ALL ABOUT IPR", organized as part of Srishti 2008, the annual techno hobby exhibition of IIT Roorkee to spread awareness about TePP and TUC

Roorkee

Dr. P.K. Ghosh
Professor, PI and Coordinator TUC

Address
IPR Cell, Indian Institute of Technology Roorkee (Uttar Pradesh)
IPR Cell, Indian Institute of Technology Roorkee (Uttar Pradesh)

NAME OF YOUR TUC

TePP Outreach Centre at IIT Roorkee.

STARTED IN

January 2008

TUC TEAM

Dr. P.K. Ghosh
Professor, PI and Coordinator TUC

Dr. Himanshu Joshi
Assoc. Professor, Department of Hydrology, Resource Person

Dr. Ravi Kumar
Professor, Department of Mathematics, Resource Person

Dr. K.L.Yadav
Assistant Professor, Department of Physics, Resource Person

Dr. B.S.S. Daniel
Professor, Department of Met. & Mat. Engineering, Resource Person

Dr. Babita Sinha
Lecturer. Department of Hum. & Soc. Sciences, Resource Person

STRENGTHS

TUC IIT Roorkee has strong contact with the activities of IITR on innovative research in various fields of science and engineering. It has strong technical expertise for evolution of innovative proposals and monitoring of projects. We spread awareness regarding TePP amongst the youth in order to encourage them to commercializing their ideas and work. We encourage the technically inclined youth for technopreneurship. We motivate youth to be innovative. The activities mainly focus on brining the spirit of entrepreneurship in the youth. Such awareness programs help innovators to bring their ideas to the fore.

FUNDING SUPPORT

TePP Outreach Centre at IIT Roorkee has funded companies in the following classifications:

a) Micro TePP Funding: 3
b) Phase 1 Funding: Nil
c) Phase 2 Funding: Nil

COMPLETED PROJECTS/ INNOVATIONS

Time has not commercialized so far for completion of project.

OTHER SUPPORT OFFERED

Meeting/addressing, project formulation and preparation, counselling.

SPOTTING OF INNOVATORS

We release advertisements in newspapers and magazines which helps us to spot innovators. Also to identify new talents we conducted workshops (Shristhi [All India Engg. Students] in February 2008 and Exhibition and Cognizance [All India Engg. Students] in March 2008.) We also conduct interaction/counseling with representatives of Small Scale Industry.

EVENTS/INITIATIVES

The inauguration cum orientation programme of the TePP outreach centre was held in the IIT Roorkee on March 15, 2008. The program was attended by the students and scholars of IIT Roorkee, students from various other institutes from local and far off places as well as the peoples from NGOs and Industries.
The audience were addressed about the origin of the Technopreneur Promotion Program (TePP) and its uniqueness to support innovation from anybody towards its commercialization.

ASSOCIATIONS/ TIE-UPS

Technology Incubation and Entrepreneurship Development Activity (TIEDA) which is going to be launched soon in IIT Roorkee.

ACCORDING TO YOU, INNOVATION IS

Innovation is any new item for benefit to the society and having commercial potentiality.

One day seminar on "Innovation to Enterprise – Opportunities for SMEs"

Chennai

NAME OF YOUR TUC

Technology Business Incubator (TBI), University of Madras.

STARTED IN

Started as a Network Partner in 2007. Graduated to TUC status in July 2009.

TUC TEAM

Dr. G. Gangi Reddy
Managing Director

Ms. T. Tamilselvi
Secretarial Assistant

STRENGTHS

Our TUC is the first in the country to have reached to the status of TUC by virtue of identifying ten innovators and facilitating grants from DSIR-TePP. TUC is situated in Chennai where prestigious institutions are located. It is a happening city in diversified innovations. There is a vast pool of Technology Angels and Experts in almost all fields of Science & Technology to evaluate the TePP Project proposals and mentor the innovators.

FUNDING SUPPORT

We have provided funding support for a handful of companies. The details of the funding is as follows:

a) MicroTePP Funding:	Nil
b) Phase 1 Funding:	12
c) Phase 2 Funding:	1

COMPLETED PROJECTS/INNOVATIONS

One of our innovators Mr. R.Mohankumar has completed his project titled "Hydroponics Device Prototype". Four innovators are at the fag end of the development of successful prototypes of their innovations and other innovators are in the process of developing prototypes.

OTHER SUPPORT OFFERED

We facilitate mentoring by the Technology Experts, networking amongst the innovators and we provide training support. For example, some of our innovators have attended "Entrepreneurial Training to TePP Innovators" organized by DSIR at S.P. Jain Institute of Management & Research (SPJIMR), Mumbai and "Management Skills to Source Financing and Management of Technology by SMEs" organized by Madras Management Association, Chennai.

SPOTTING OF INNOVATORS

We have identified Technology Angels and Project Review Committee members from educational and research institutes in Chennai. This had given wide publicity about TePP, besides the brochures on TePP which we had circulated. The innovators can approach TUC through email, telephone and meeting personally.

EVENTS/INITIATIVES

We have organized a one day seminar on "Innovation to Enterprise – Opportunities for SMEs" on 11th May 2009 in association with Madras Management Association, Chennai and Konrad Adenauer Foundation, Germany.

ASSOCIATIONS/TIE-UPS

We have identified prototyping centre (Invention Labs) which is now recognized by DSIR. This has helped many innovators to develop prototypes.

ACCORDING TO YOU, INNOVATION IS

Innovation is a novel product, process hitherto not available to the market. Innovations resulting from the integration of different technology disciplines; substitutes for commodities that are in scarce supply; methods and techniques that can reduce arduous labor, risk prone working conditions are the need of the hour. Innovations should be something that lead to development of new benchmarks to an existing technology; it should be able to replace the existing counterparts by being efficient and affordable at lower prices.

Dr. G. Gangi Reddy
Managing Director, TBI

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TUC Team of TUC-NEIST (Starting from left Mr. Ajoy Borkotoky, Manik Saikia, Ms Illika Zhimo, Dr (Ms) Dipanwita Banik, Mr. Pranab Barkakati, Mr. Dipankar Neog)

Jorhat

Mr. Dipankar Neog
TUC Co-ordinator
Scientist
General Engg. Division

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NAME OF YOUR TUC

TePP Outreach Center-North East Institute of Science and Technology (TUC-NEIST).

STARTED IN

19/02/2009

TUC TEAM

Mr. Pranab Barkakati
TUC Advisor, Scientist,Chemical Engg. Division.

Mr. Dipankar Neog
TUC Co-ordinator, Scientist.

Dr (Ms.). Dipanwita Banik
Scientist & TUC Member, Information & Business Development Division.

Ms. Illika Zhimo
Scientist & TUC Member, Information & Business Development Division.

Mr. Ajoy Borkotoky
Technical Officer & TUC Member, General Engg. Division.

Mr. Manik Saikia
Project Assistant (Level-I)

STRENGTHS

This TUC is operating in a multidisciplinary CSIR laboratory comprising of Biological Sciences, Engineering Sciences, Chemical Sciences, Materials Sciences and Geo-Sciences. Therefore expertise on different fields is available to guide, evaluate and monitor the project proposals of individual innovators.

FUNDING SUPPORT

The details of the funding provided by us are as follows:
a) MicroTePP Funding: Two projects applied to DSIR, viz.,
1) Prototype of a newly invented Muga reeling machine
2) Development of a modified Chess Game

COMPLETED INNOVATIONS/ PROJECTS

Two projects have applied to DSIR for Micro Technopreneurship Support (TS) category, viz,
1) Prototype of a newly invented Muga reeling machine, and
2) Development of a modified Chess Game

OTHER SUPPORT OFFERED

Other than funding we have helped the innovators by providing necessary literature survey of their innovations.

We also provide proper guidance in preparation of applications for them. Other related informations are also provided by us to the prospective innovators. We also try to give maximum support to the innovators.

SPOTTING OF INNOVATORS

Through advertisements in the local newspapers and personal contacts, we are able to spot new and budding innovators. Innovators can directly approach us as well.

EVENTS/ INITIATIVES

We had organized a cluster of training programs among the blacksmith artisans for their quality product development. We also conducted Technodea (Technological Innovative Idea) competition among the technical institutes and colleges for promoting student innovators.

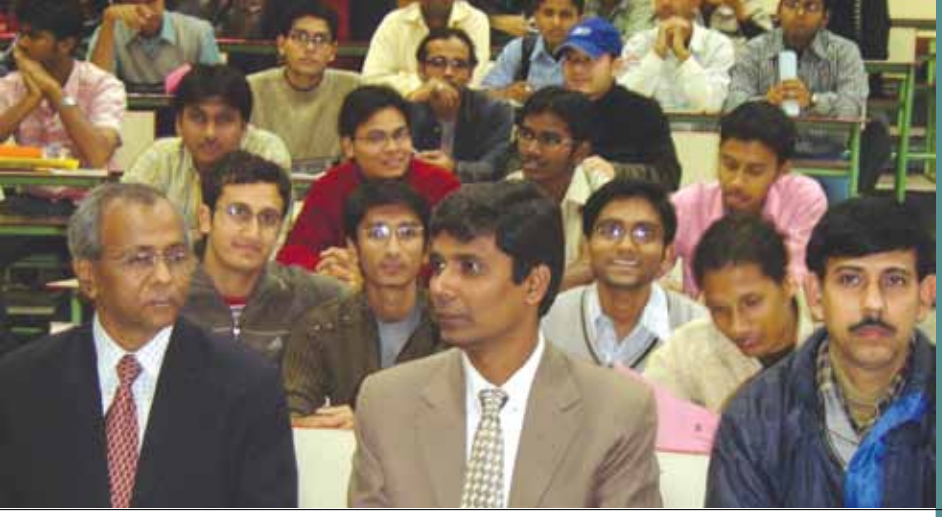
Publishing articles for inviting techno-entrepreneurship ideas also helps us in spotting new innovators. Encouraging new innovative inspirations is another initiative we have taken to spot new innovators and initiatives.

ASSOCIATIONS/TIE-UPS

As of yet, we have not made any associations or tie-ups.

ACCORDING TO YOU, INNOVATION IS

Innovation is any new idea, may be a combination of inventions, which may lead to techno-economically viable process/product.



Workshop on TePP to familiarize the scheme amongst students/staff

Workshop at Silchar Polytechnic, Meherpur on TePP (Bottom)

Silchar

NAME OF YOUR TUC

National Institute of Technology (NIT) Silchar

STARTED IN

2007

TUC TEAM

Prof. Fazal A. Talukdar
Professor- Coordinator
Dr. B.K. Roy
Asst Professor- Facilitator

STRENGTHS

To identify and promote the innovators of this otherwise backward NE Region is our main strength.

FUNDING SUPPORT

The funding support classification and figures are as follows:
MicroTePP Funding: Nil
Phase 1 Funding: 1
Phase 2 Funding: Nil

COMPLETED INNOVATIONS/ PROJECTS

The innovative project of developing a Rheometer under execution and expected to be completed shortly.

OTHER SUPPORT OFFERED

We offer counseling and technical support, if needed.

SPOTTING OF INNOVATORS

We conduct seminars/workshops. We also take the help of media to familiarize the potential innovators about the scheme. Sometimes, potential innovators are encouraged by contacts. Based on the above inputs, potential innovators fix appointments with us and we discuss across the table their innovations and encourage them to come forward with their ideas.

EVENTS/ INITIATIVES

Organized (i) workshop on TePP at NIT Silchar to familiarize the scheme amongst students/staff, (ii) workshop at Silchar Polytechnic, Meherpur on TePP to familiarize the scheme amongst students/staff (iii) Media campaigning through major newspapers of the North-East and (iv) Organized a press conference at Silchar Press Club.

ASSOCIATIONS/ TIE-UPS

Right now, we don't have any associations or tie-ups. As and as more innovations will materialize, we may think of setting up of an Incubation Centre

ACCORDING TO YOU, INNOVATION IS

Innovation is the ability to come up with something new that somehow facilitates a task or endeavor.

Prof. Fazal A. Talukdar
Professor- Coordinator

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Inauguration of TePP Outreach Centre (TUC) of SPMVV, Tirupati (A.P) by Dr.A.S.Rao Advisor, TePP Network, Department of Scientific and Industrial Research, Ministry of Science and Technology, New Delhi.

92nd Review cum Orientation Programme for TUC and TSC meeting in Tirupati. (Bottom)

Tirupati

Prof.D.Sarada
TUC Coordinator

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NAME OF YOUR TUC

TUC SPMVV

STARTED IN

November 2008.

TUC TEAM

Prof.D.Sarada
Coordinator

Ms. V. Harini
Research Intern

Mr. B. Bhaskar
Attender

STRENGTHS

SPMVV has a TUC advisory committee and a TUC monitoring committee. The TUC in SPMVV focus to tap the potential and innovative skills of women innovators. It also aims to promote awareness creation on TePP support among different sections of population.

OTHER SUPPORT OFFERED

We provide facilitation and language assistance to innovators with limited or no English language proficiency.
Interaction with specialists is also arranged for those who need to refine their proposal.

SPOTTING OF INNOVATORS

Awareness programs are organized and advertisements are released. Correspondence with educational institutions and NGOs are maintained in order to spot innovators.

EVENTS/ INITIATIVES

In the past year we have organized events in the form of TUC Inauguration program, 92nd Review cum orientation program for TUC and TSC meeting.
Many awareness programs were also organised on TePP support in Sree Vidyanikethan Engineering College in Tirupati, Sree Kalahasteeswara Institute of Technology, Srikalahasti.

Programs have also been organised in association of kalamkari artisans in Sree Kalahasti, women self help group federation in Tirupati, Adikavi Nannaya University students in Rajahmundry, ICDS functionaries in Chittoor District.

ASSOCIATIONS/ TIE-UPS

We have tie-ups with Sri Padmavati Mahila Visvavidyalayam, Sugen Life Sciences Laboratory and Heritage Foods Pvt.Ltd.

ACCORDING TO YOU, INNOVATION IS

Innovation is a new idea/technology which is original, creative and convertible into a working model. An innovation suitable for TePP support should have social and entrepreneurial relevance.

TUC Team : (from L to R) Prof. H.P. Sudarshan (Core Member) , Dr.K.A.Krishna Murthy(Chairman High Level Committee, TUC- SSIT), Prof. M.Z.Kurian (Core Member SSIT), Prof. Lt.L.Sanjeev Kumar (Coordinator TUC--SSIT)

Creating awareness among students and faculty of Canara Engg College (Bottom)

Tumkur

Dr.K.A.Krishna Murthy
Chairman High Level Committee, TUC-SSIT

NAME OF YOUR TUC
SSIT-STEP

STARTED IN
2003

TUC TEAM
Dr.K.A.Krishna Murthy
(Chairman High Level Committee, TUC-SSIT)
Prof.Lt.L.Sanjeev kumar
(Coordinator, TUC-SSIT)
Prof. M.Z. Kurian
Prof. H.P.Sudarshan
Dr. Harish Kumar
Dr. T.K. Chandrashekar
Prof.S.N.Keshava Murthy

STRENGTHS
Our strength lies in promoting and nurturing the innovations, assisting the innovators, rendering support system and expertise within or outsourced in product R&D and interacting with innovators. We provide input of entrepreneurial competency and consultancy from the experts. We also try to create IPR and legal related awareness.

FUNDING SUPPORT
Our TUC has funded many companies under the TePP funding as can be seen below:

MicroTePP Funding:	3
Phase 1 Funding:	6
Phase 2 Funding:	Nil

COMPLETED INNOVATIONS/ PROJECTS
So far, three projects have been completed. They are Nualgae-growth of Diatom algae, Tin Grinding Machine and Instant Rasam mix.

OTHER SUPPORT OFFERED
We organize industrial visits for the innovators, we help them to attend various technical and managerial conferences. We guide the innovators with technical suggestions at regular meets.

SPOTTING OF INNOVATORS
We spot the innovators through various promotion programs held at both rural and urban areas. The innovator can directly approach the institute as well.

EVENTS/INITIATIVES
TePP promotion programme is regularly held in both rural and urban areas. We advertise in newspapers as well through radio to reach the masses.

ACCORDING TO YOU, INNOVATION IS
Innovation is a new way of doing something or “new stuff that is made useful”. The goal of innovation is positive change, to make someone or something better. Innovation leading to increased productivity is the fundamental source of increasing wealth in an economy.

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Innovator explaining the working of a TePP supported project

Students of ITI, Udaipur during the awareness camp held in Jan 2009 (Bottom)

Udaipur

Dr. V. K. Srivastava
Chief Coordinator

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NAME OF YOUR TUC

College of Technology and Engineering, Udaipur (Rajasthan)

STARTED IN

November 2007.

TUC TEAM

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Chief Coordinator

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Coordinator
Dr. Surendra Kothari
Felicitator Er.
Mr. Sudhakar Jindal
Felicitator
Dr. Sanjay Jain
Felicitator Er.
Mr. Navneet Agrawal
Felicitator
Mrs. Vinita Chittora
Computer Operator

STRENGTHS

The College of Technology and Engineering is a multi-faculty college having all the branches of Engineering. Besides this we are associated with Indian Council of Agricultural Research, New Delhi (ICAR) and handling number of research projects. Our college has well qualified faculty, well equipped laboratories and a testing center to assist innovators. We also have good linkages with NGOs and other reputed organizations.

FUNDING SUPPORT

We have funded 12 companies so far under the following classifications.
a) MicroTePP Funding: 6
b) Phase 1 Funding: 6
c) Phase 2 Funding: Nil

COMPLETED INNOVATIONS/ PROJECTS

The project, Energy Efficient Braking System has been completed and the project Development of Extendable Width Cultivator has been commercialized.

OTHER SUPPORT OFFERED

We provide counseling to innovators and help them to formulate the proposals.

SPOTTING OF INNOVATORS

We advertise through newspapers and organize workshops. We also organize awareness camps in various colleges of Rajasthan and intimate our contact address and source and thus many people have approached us.

EVENTS/ INITIATIVES

We have organized state level workshop in 2008 and 2009 and awareness camps in various colleges of Rajasthan. We have delivered lectures on TePP in science fairs, exhibitions and conferences.

ACCORDING TO YOU, INNOVATION IS

An innovation is any new idea or creation which can help or simplify the life style of people and add values and can be commercialized.

VITTBI TUC team

Innovation Funding Camp organized at VIT University (Bottom)

Vellore

NAME OF YOUR TUC

Vellore Institute of Technology, Technology Business Incubator.

STARTED IN

Year 2006

TUC TEAM

Mr. A. Balachandran
General Manager

Ms. Sudha Rajagopalan
Coordinator-Projects

STRENGTHS

Offering the innovators a single window seamless support from idea to commercializing the venture, our network is our strength.

FUNDING SUPPORT

So far, we have been successful in providing TePP funding to many companies like:

a) MicroTePP Funding:	17
b) Phase 1 Funding:	4
c) Phase 2 Funding:	1

COMPLETED INNOVATIONS/ PROJECTS

One TUC funded completed innovation, namely, Solar Water Heater with fused tube lights by Shri. S. B. Janakiraman, Vellore is ready for commercialization.

OTHER SUPPORT OFFERED

Other than fund support we also provide the innovators mentoring, product development support, marketing development support.

SPOTTING OF INNOVATORS

We send out mailers and conduct Innovation Identification Camps. We also release advertisements and carry out promotional activities. Also, innovators can approach us in person, by email, or through post or a call.

EVENTS/ INITIATIVES

We conduct exhibitions by holding stalls in TIE events and institutional events. We distribute CDs, thus sharing the TePP videos with network institutions, DICs, and NGOs and playing the video during events within campus. We conduct camps for identifying innovations and innovators. Entrepreneurship Awareness Camps, Faculty Development Programmes, Presentations and talks on the TePP activities are also held. We offer counseling at our Chennai office regularly.

ASSOCIATIONS/ TIE-UPS

VITTBI is by itself a full fledged incubation centre with necessary space and infrastructure and can incubate startups. Housed within one of the premier universities, mentoring, laboratory facility and expert guidance are an added advantage to our innovators.

ACCORDING TO YOU, INNOVATION IS

Invention is converting cash into product while Innovation is converting an idea into cash.

Mr. A. Balachandran
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TECHNOLOGY ANGELS ON MOST PANEL (TePP)

Several technology experts have evinced keen interest, to offer their services to independent innovators of India. To facilitate a closer bonding, Ministry of Science & Technology is maintaining a panel of 'Technology Angels' (TA), list of experts that signed Non Disclosure Agreement is as under.

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(A large number of experienced people joined the Social network 'Friends of Indian Innovators' at Linkedin. For full list see Group Page: http:llwww.linkedin.comlelgis/1 61546

Innovators can join the group. Admission is free. Follow instructions on group page or write to rra@nic.in)

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH (DSIR)
TECHNOPRRENEUR PROMOTION PROGRAMME (TEPP)

JOIN TEPP OPEN INNOVATION NET WORK

Open innovation has been proven to be the most effective way for companies to bring
products to market today. Your company can innovate faster by tapping the creative potential of **independent innovators.**

TePP provided an opportunity to independent innovators and hundreds of them proved their capabilities by bringing out a wide range of low cost-high performance innovations in agriculture implements, herbal products, low cost health care equipment, etc. Browse through the innovations list placed at www.dsir.gov.in.

Interested in partnering with independent innovators?

- Tell us about the problem you would like to solve with support from external innovators
- We can help the innovators to help you
- TePP provides a (maximum) grant of Rs 15 lakhs to selected innovators to demonstrate their concept. And innovators own full rights on IP and technol ogy commercialisation. That means, the commercial organisation can enter into a bilateral agreement with innovators by direct negotiation.

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Notes:

1. The requests for Partnership with Innovators (RPI) will be placed on TePP portal for information of all innovators. Students of reputed technical institutes will be encouraged to take industries problem as research project. The listing on the portal will be live for 60 days.
2. 2 The participating organisation can choose to remain unanimous at listing stage. There will be no processing fee.
3. 3TePP follows the process of screening by TePP Outreach centres and evaluation by Tech nology angels before approving support. Same procedure will be followed for innovations again.

Department of Scientific and Industrial Research (DSIR)
Technopreneur Promotion Programme (TePP)

WANTED 200 INNOVATORS WITH GRIT AND DETERMINATION TO BECOME TECHNOPRENEURS

TePP along with its network partners provides grants, technical guidance and mentoring to independent innovators to emerge as entrepreneurs by incubating their idea and enterprise in two phases. Till date 400 innovations have been supported. Proposals are now invited on the following for support in the year 2010-2011

Program	Eligibility
Micro Technopreneurship Support (TS): (Max support Rs 0.75 lakhs)	Any independent innovator testing new ideas with computer generated /physical models. Student innovators and others who have not worked on their idea can avail this support to develop their novel concept further and understand challenges in implementation. They can apply to Phase-1 grants thereafter.
TePP Phase I (Innovation Incubation)	
TePP Project Fund (TPF) (Max support Rs 15 Lakhs)	Any independent innovator/start-up firm for developing function proving prototypes. Innovators can apply direct for TPF support without applying for TS/ if they have worked on their idea to the extent they understand challenges in implementation. Before submitting proposal, they can take a self check based on Check list placed on DSIR website.
TePP Phase II(Enterprise Incubation):	
1 Supplementary TePP Fund(STF) (Max support Rs 7.50 lakhs)	Successful TePP innovators of TePP Phase –I for licensing technology to a third party
2 Seamless scale-up support(S3T) (Max support Rs 45 lakhs)	Successful TePP innovators of TePP Phase-I for starting own enterprise.

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IMPORTANT:

1. Women innovators are encouraged to apply. All assistance will be provided to them by TePP Network
2. TePP works in a network mode with several out reach centers spread across the country. Addrsses of TePP Outreach Centers(TUC) with name of coordinator and contact numbers are placed in DSIR web page. Few more TUCs will be added in the current financial year. All outreach centers provide counseling and mentoring, some provide incubation facilities too. Innovators are encouraged to submit proposals through the TePP Outreach Centers.
3. The application blank appropriate to the category may be downloaded from DSIR Website: http://www.dsir.gov.in

WE SHARE YOUR DREAM