



ABOUT MIRAGE

Every human has two aspects of him self- the physical self and the inner soul. The very fact that these two when developed in harmony make a complete being is the soul motto of the ex-istence of mankind.

MIRAGE is just another way to emphasize this fact. Being an engineering student one gets too occupied with thoughts and facts that are either conceptual or require proof. To nurture the free thinking ability Mirage provides the platform

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WHERE THOUGHTS FLOW FREE AND IMAGINATION IS POWER!!!!

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DiscoverE

The very nature of science is discoveries, and the best of those discoveries are the ones you don't expect

"The very nature of science is discoveries, and the best of those discoveries are the ones you don't expect."

Neil deGrasse Tyson

As Neil Tyson says science and nature are full of discoveries waiting to happen. Discovery is intertwined with novelty. By implication, it is also intertwined with innovation. And science, innovation and discovery aptly sum up engineering!

The dictionary asserts that 'Discovery' is the act of detecting something new, or something "old" that had been unknown in the past. Discovery is the observation of new phenomena, new actions, or new events and providing new reasoning to explain the knowledge gathered through such observations with previously acquired knowledge from thought and experience. Clinical meanings aside, we as engineers must have a profound association with the word discovery. Every day that we study, we discover.

The mechanisms of everyday life as we know it are hidden with small truths waiting to be discovered. In the course of persevering to imitate these discoveries we 'engineer' technology. It is as Robert Heinlein says, "One man's "magic" is another man's engineering."

In today's world engineering has become synonymous with an amalgamation of tests, assignments, journals, bland project reports and dreadfully long examinations.

But unfortunately the "magic" of engineering has vanished somewhere down the line. In today's world engineering has become synonymous with an amalgamation of tests, assignments, journals, bland project reports and dreadfully long examinations. The qualities we seem to be developing include only amorously pouring over textbooks, memorising texts and writing copied journals to no useful ends. And more often than not, we carry forward this tunnel-vision of ours everywhere we go, look out to ease only our own problems and try to live a cocooned life with all the luxuries our job can afford us.

Curiosity- once the crucial ingredient of an ideal student has become a passive quality. We must strive to reignite it. Use curiosity as a tool to sharpen our understanding of the mechanics of the world we live in. And apply this knowledge to discover solutions to problems faced by us and our country.

“Engineers like to solve problems. If there are no problems handily available, they will create their own problems.”

— Scott Adams

Scott Adams rightly describes the psyche of an ideal engineer in the lines above. Discovery, research, innovation must be our mark. At this juncture our country needs us to be useful to it. This is a sense of duty that must be inculcated in all of us-prospective engineers.

“All we know about the new economic world tells us that nations which train engineers will prevail over those which train lawyers. No nation has ever sued its way to greatness.”

— Richard Lamm

We must aim to stay connected to our roots and simultaneously lend a shoulder in the journey of our nation's ascent to greatness. Civil services as well as the government today need persons who have been trained to methodically solve problems and be efficient in the process of doing so. These are qualities that are germinated and nourished in every engineer and hence we must put these qualities to good use. An educated and professional public system in our country seems to be an all-stop solution to the problems our country currently and continually faces.

We must aim to stay connected to our roots and simultaneously lend a shoulder in the journey of our nation's ascent to greatness

Taking up this task head-on and bearing responsibility for our nation's progress is now our call. We must learn to revel in our country's glorious past and at the same time work to substantiate an immaculate future through conscious efforts on our part.

So let us all turn and march back into our nation, because going out and being nothing but a 9-to-5'er is too mainstream!

Engineering isn't just a degree on a parchment; it is an attitude. It is habit to be cultivated and a personality to be discovered within us. As soon as we stop viewing it as a chore and open our eyes to its myriad possibilities we will discover the "E"- The Engineer within us!

*let us all turn
and march back
into our nation,
because going
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nothing but a 9-
to-5'er is too
mainstream*

— Meet G., Shreya S., Aanchal D., Kalindi D., Monu S., Arundhati S.

Harsha B., Mahalaxmi A., Dharmika H., Snehal R.

FROM THE CHAIRPERSON'S DESK

At ISTE VESIT, we believe in the power of the 'I' more than anything. So goes our motto- Imagination is POWER because the Power of Imagination makes one Infinite. It is what propels us to nurture not only our own selves but also our friends with the help of proficient and experienced staff. An effort is made to contact faculty of repute to guide our students and make them realise and choose what their inner calling is.

We are a 4 year old student chapter of the prestigious organisation, ISTE. Being a chapter in a technical institute it is our duty and honour to help fellow students and juniors harbour all characteristics of an employable professional. In today's world what sets those apart from the crowd are their soft skills and understanding of the corporate requirements. We at ISTE aim to acquaint all our members with all these and much more.

Our objectives are multifold and successful accomplishment of these would ensure that our members improve as individuals and as professionals. We trust our ethics and abilities to deliver the best pool of opportunities to outshine competition. We hope you, our members, seize these chances as we explore new ways to highlight your achievements before the nation.

The ISTE council welcomes you all to dream with us as we embark on this exciting journey all again. For no joy is greater than the anticipation of a dream coming true.

We at ISTE VESIT also highly believe in Positive thinking.
"Challenges are what make life interesting and overcoming them is what makes life meaningful"

— MEGHANA MAKHIJA



Vivekananda Education Society's Institute of
Technology
INDIAN SOCIETY FOR TECHNICAL EDUCATION
ISTE-VESIT STUDENTS' CHAPTER (MH-144)

The VESIT student chapter of ISTE, established in 2008, addresses to the technical and non-technical needs of its members giving them a chance to display their talents and prove their worth in an array of events conducted throughout the year. ISTE aims at developing not only technical temperament of budding engineers but also overall personality, reasoning and presentation skills. ISTE has a good reputation in the field of technical education and it strives hard in order to cultivate a fraternal spirit among teachers, administrators, technicians, investigators, practitioners and industrialists. ISTE aims at developing technical as well as soft skills of a person.

Following are the events ISTE VESIT has conducted successfully in the academic year 2013-14:

TECHNICAL EVENTS

- Photoshop Workshop**

Different tools and tricks to edit images using Adobe Photoshop were explained in this workshop.

- Eagle Workshop**

This workshop explained members the process of PCB fabrication using EAGLE software.

- Softopedia**

Different softwares like Cyberlink Power Director and Microsoft Visio were demonstrated. Tricks in using Command Prompt and Processing were also explained.

- Techtrix**

A three day event was organized which included array of technical sub events like Technical Paper Presentation, Project Competition and Technical Quiz-Technotrix.

NON-TECHNICAL EVENTS

- Math and Logic**

This event was organized for all the S.E members. It aimed in testing their analytical and logical capabilities.

- Group Discussions**

This event organized for T.E members helped them to boost up their team speaking abilities.

- **JA Titans.**

In collaboration with Junior Achievement, an inter college event was conducted in which teams competed against each other in a virtual, online business simulation.

- **Prova**

The event was conducted to analyze the creativity and product design abilities of S.E members.

- **Around the World.**

It was one of the mega events hosted by ISTE. Thus event was aimed at giving S.E and T.E members an opportunity to explore different cities of the world.

- **Maximus**

The event tested marketing skills of all T.E members. The event incorporated presentations of products that have failed due to marketing issues. The students were expected to put forth an alternative strategy for marketing of product.

- **What after B.E' Seminar**

This seminar was conducted by Mr. Ganesh Kohli in which he explained different career options that can be pursued after graduation.

- **Debates**

To enhance the communication skills of S.E members, a five day debate session was arranged. The finals were

judged by Mr. K.P Singh, a renowned speaker and counselor.

- **Vedic Maths**

In this workshop, Mr. Raj Sippy explained students, different ticks to speed up complex mathematical calculations.

- **Placement Week**

T.E members got to experience our campus placement procedure by appearing for Mock Interviews and Online Aptitude Tests

- **Study Abroad**

This seminar gave a brief idea to all S.E members about post graduation opportunities in foreign countries.

- **Mock GRE**

To help all T.E members in the preparations of upcoming GRE Tests, ISTE VESIT organized a Mock GRE test.

- **Seminar on CAT and GATE**

To clarify all doubts regarding M.E and MBA, a seminar by Mrs. Shweta Apte was organized, especially for our members of Afternoon Shift.

- **Srinivasa Ramanujan Mathematical Competitions-2013:**

ISTE VESIT conducted SRMC-13 under ISTE Headquarters, Delhi. Chapter level, Zonal level as well as National level examinations of these competitions were

hosted by ISTE VESIT.

- **Sea Stranglers:**

This event was organized exclusively by S.E Coordinators wherein all S.E members accomplished various tasks related to the theme 'Pirates'

- **Gangsta Blues:**

This was a mega event organized for all S.E, T.E, B.E and MCA members wherein teams were supposed to act as gangsters and participate in related events like robbery, gambling etc.

On the second day, teams competed against each other in a virtual horse race game

- **Research Paper on "Relevance of Swami Vivekananda Thought for Nation Building".**

Members submitted their article on Swami Vivekananda's role in nation building and development of society.

- **Article Writing:**

Various Technical, non technical articles and poems were accepted from the members which were scrutinized and shortlisted ones were published in Mirage'14.

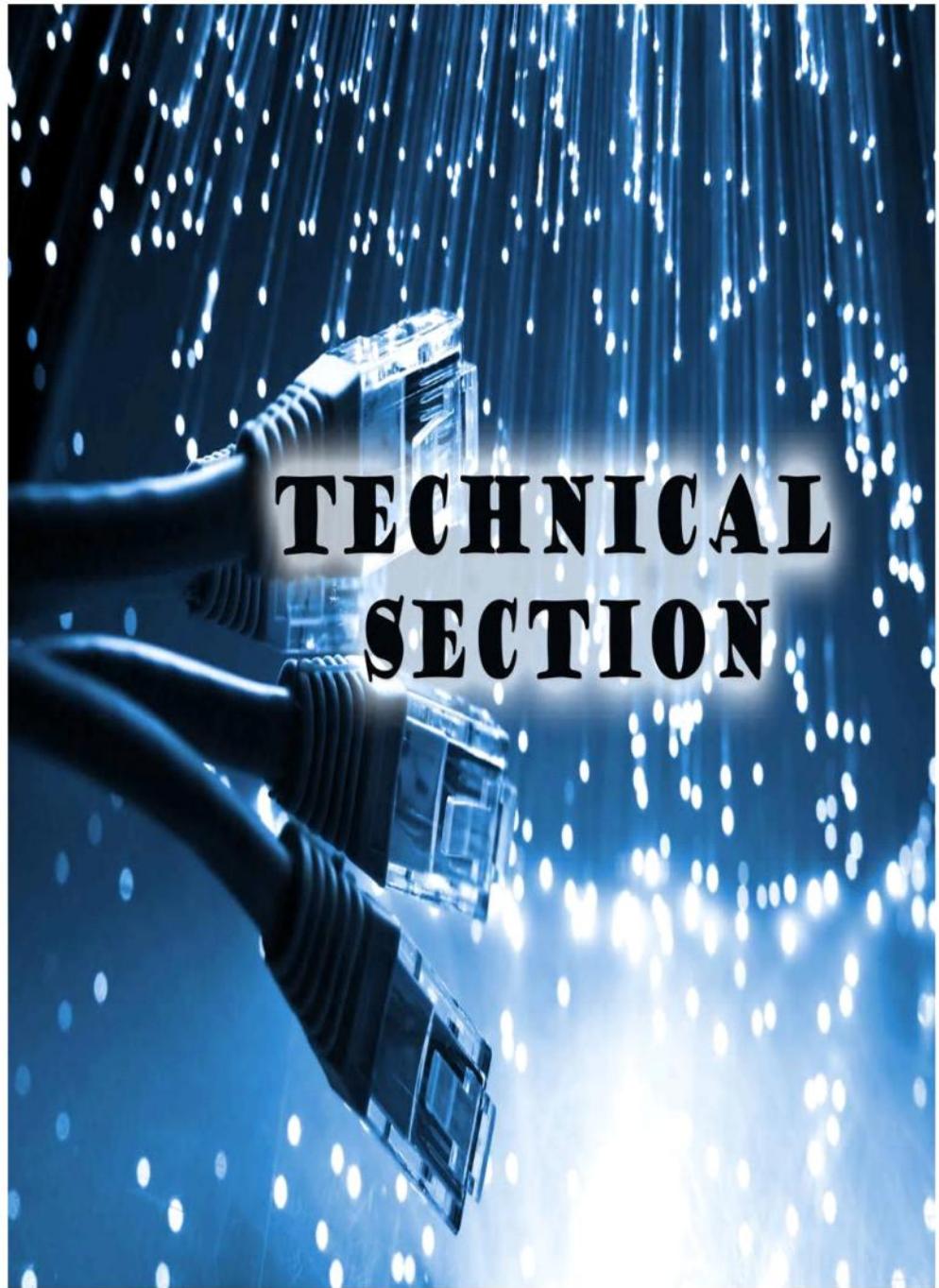
- **SYNERGY 2013:**

ISTE VESIT organized its Annual Symposium on 30th March, 2013. The theme of the symposium was POWER OF I.

To sum it up, ISTE VESIT organized a chain of enriching events throughout the year.

EVENTS





RoboSpo...

robots and sports



*With the London
Olympics
2012, Fabrizio
Bensch and Pawel
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possible*

Ever heard about Reuters? Reuters is the International News Agency which pioneered the use of telegraphy in news coverage in 19th century. With the London Olympics 2012, Fabrizio Bensch and Pawel Kopczynski from the agency, are changing the game making impossible possible. Developed by the duo the 11 robo-cams, stashed in floodlights, rafters and scaffolding in and around Olympic venues to provide imagery from places inaccessible to human photographers due to space or security reasons, will use a wide range of lenses: a 24-105mm, a 70-200mm and telephotos up to 400mm. In addition to three axes of movement, the cameras' pilots control shutter-

-speed, sensitivity and image size. Photos instantly stream into Reuters' remote editing system, Paneikon, and are moved to clients just minutes after being captured. These cameras are rigged into fully-articulating mounts with mounts with swiveling robotic heads to offer 360-degree views, which are controlled remotely by computer using a joystick. The camera orientation is such that one can zoom the lenses attached to the cameras and - of course - trigger exposure. With this the world was gifted with epic images of Olympics, one of which was incredible shot of the full moon rising through the Olympic Rings hanging beneath the Tower Bridge.

A couple of interesting thoughts... if you were to sync all the remote cameras at an event you could do some of those Matrix bullet-dodge sequences. You could also combine images taken from different points of view at the same time to compile image-overlay-3D models with 123D Catch. The images of the rigs is more interesting to me than the images of the events.

With this pace, probably the world would next witness cameras in the balls and pucks and attaching Hero cameras to the athletes. May be a few years from now, from now, all the spectators will be live-via-remote on

their smart phones and the athletes will be competing in front of a hundred remote operated cameras. Pretty scary!


Robos are now being used for studying players and their performances and develop new technologies to chisel their skills

Fighting her way to the 7th place, U.S. Olympian Sarah Robles proved to be a true supergirl hoisting a total of 265kg in two weightlifting events while competing in London in the 75+ kilogram weight class. What do you think it takes to be a weight-lifter? If you think its big muscles then let me tell you, you are wrong! Brian Zenowich is a robotics engineer at Barrett Technology, where one of his projects is the Whole Arm Manipulator, a sophisticated mechanical arm that moves the way human arms do. To figure out the physics behind Robles' accomplishments, he watched high-speed videos of Robles performing the clean-and-jerk and the snatch, the two lifts weight-lifters perform in competition

. He then tested Robles' techniques in his robot arm. Zenowich found that by imitating the movements Robles makes, a robot could lift a dumbbell it couldn't lift otherwise. Besides strength, it takes a delicate dance of specialized movements to balance such high amounts of weight over a person's — or robot's — head, Zenowich said. It is not only strength, but also agility, judgment and many other athletic traits. In similar ways, robos are now being used for studying players and their performances and develop new technologies to chisel their skills. Not just this, a computer-generated competitor for tennis players is being developed in a University in London which would analyse video footage of former tennis professionals, picking out moves and techniques and developing a it database against which can compare other players. This intelligent piece of technology knows the difference between an attack and a defensive play. Not only can it track both players throughout the game, but also keeps everything on record to be accessed later on with ease. Several European soccer clubs use Artificial Intelligence technology when administering physical examinations to players to help trainers and coaches determine the likelihood of a player developing an injury. The machine collects the player's biomedical data and compiles it with other records and signs of illness. Once the information is analyzed, the technology can spot injuries, or potential injuries, much more quickly and effectively than a doctor or coach may be able to. Athletes' personalities and psychological profiles can also be stored in the machine, and can be



The Suumanoid could help athletes swim faster and also can function as a rescue robot.

used to guess people's behavior in various situations. Robots offer helping hand to scientists in various researches. Available at your service 24*7 without any complains, not only can they be programmed to repeat the same motion over and over and to simulate sports movements such as tennis or golf swings but also to sweat. Thus helping engineers test equipment and surfaces. Using robots, researchers can do more tests in less time, under highly controlled settings.

A team of researchers from Kanazawa University in Japan has developed an experimental system using a skiing robot to investigate the effects of joint motions on ski turns. Such a system could ultimately serve as a model to help skiers improve their own movements. And a team from the the University of Tokyo has developed two robots, one that can pitch and one that can bat, to study the physics of baseball.

Japanese researchers are racking their brains to develop a human-like robotic swimmer that could help athletes swim faster, or at least wear speedier swimsuits which is modeled after a competitive swimmer, built to half scale. Waterproof motors reproduce swimming motions. It currently swims about three times slower than the current 100-meter freestyle record-holder, Brazilian Cesar Cielo. The Suumanoid could help athletes swim faster and also can function as a rescue robot. Among other things, the Suumanoid will give researchers insight into the propulsive force created by a swimmer's hands, which is difficult to gauge with sensors on an actual human

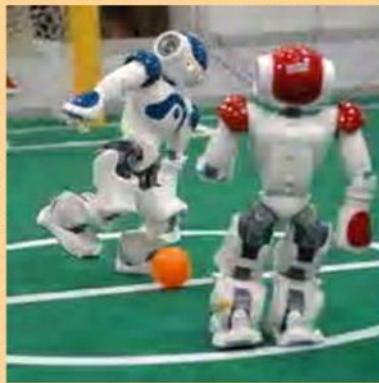
.A interesting fact about robots is that they are not only threatening coaches but also sports journalists."Robot journalists" is an automated software designed to turn facts into readable copy. The results are actually starting to become alarmingly good. The articles by this child of technology are more accurate and cover larger facts than a human can!

Did you know that the ultimate goal of Robocup, the international competition of robots, is to have a team of fully autonomous humanoid starting to robots beat a human world champion team by 2050.


*Nothing is left
untouched by the
spell of
technology with
sports no
exception.*

Technology today is taking us beyond the lines. You never know when your complete irrational ideas turn real, that too sooner than you think. Nothing is left untouched by the spell of technology with sports no exception. We have come a long way holding the hand of technology. Its because of the newer advances and innovations that we know this great deal about sports. It is technology

that doubles the zeal in oldies and youth equally, with



the instant replays, the headset for coaches to throw, or even the wireless microphone for our referees to mix up their words on!

-Rakshmi Makheja D12A
(1st Prize Technical Section)

Skinput

Abstract—Skinput is a technology that helps to dissociate input from electronic devices thus allowing us to make devices smaller without simultaneously shrinking the surface area on which input was to be performed.

I. INTRODUCTION

Skinput is one of the latest inventions in the 21st century. Microsoft Research was the first successful one to submit the paper with a working prototype on this. Skinput is method of feeding data to a particular electronic device. Though many people tried to implement this technology since early 90s, none of them were able to achieve this until Chris Harrison and his team submitted the first working prototype in 2011.

II. NEED FOR SKINPUT

The input from a device often consumes space on the device which shrinks

the surface area of operation. Though sometimes it is manageable but in devices having small input and display area, it gets quite frustrating and irritating. It blocks our vision to a very large extent. Thus we need a very efficient way of separating input from the electronic device so that we could comfortably use the device.

III. RELATED WORK

There are many other attempts made to replicate the same basic idea of an alternate always available input system to electronic devices such as:-

- Sixth Sense System

- Speech input
- Computer Vision
- Speech input -requires a lot of training as it is necessary for the device to understand the words we speak. It becomes even more difficult with a different accent. It is limited in its precision in unpredictable acoustic environments, and suffers from privacy and scalability issues in shared environments. Computer vision techniques are very popular however being too costly and error prone in mobile scenarios, it is neglected. Sixth Sense System developed by Pranav Mistry do proposes a mobile, always-available input/outby combining projected

information with a colour-marker-based vision tracking system.

But it has many accuracy errors such as predicting whether the button is pressed by the finger or not.

IV. PRINCIPLE
A person can choose function by performing different hand gestures and actions such as finger tapping on the forearm. Each gesture and action is first sensed by bioacoustics sensing array which in turn is recognized by a small program in language C. This action is then executed in the electronic device. For enhanced performance, pico projector is used for interactive

display.

V. CONSTRUCTION

Skinput is basically made of an armband comprising of a bioacoustics sensing array. Here a thin client written in C interfaced with the device uses the Audio Stream Input/output (ASIO) protocol. This C program is loaded as a primary application on the electronic device. It performs the basic two functions –

- It provided a live visualization of the data from the sensors provided on the arm band.

- It divides input from the data stream into independent functions

CONDUCTION PROPERTIES OF THE HUMAN BODY

Earlier to execute the concept, researchers used contact microphone on a user's wrist to catch the finger movement. The main problem they faced during

this process was the accuracy error. It also constrained

1) ACOUSTIC

The movement of one hand. At this time bioacoustics came to play. Whenever a finger taps the skin, acoustic energy is formed. This energy travels through air and skin. Mainly energy travelling through skin plays the vital role.

This energy passes to the armband having sensors in transverse and longitudinal waves. Transverse wave is produced due to displacement of skin from the finger impact. Longitudinal waves moves in and out of the bone through soft tissues. Thus the total output depends on the mixture of these two modalities. Joint acts as an acoustic filter thereby making the wave pure.

) ARMBAND

It senses and detects vibration

transmitted from the hand gestures. Armband contains sensors that collect acoustic info from the biceps area. The armband contains 2 pairs of 5 specially weighted cantilevered piezo films which collects response in a particular set frequency range. This frequency range is set up by the researchers by recording different frequencies due to hand gestures. Here, small weights are added to the end of the cantilever to alter the resonant frequency allowing the sensing element to be responsive to a narrow band of acoustic.



a small program of C where it processes to get a particular action for the electronic device. It employs brute force machine learning approach. The researchers have managed to produce 186 hand gestures. Each hand gesture is designated a particular meaning such as

- Finger tap on the skin

- Tapping on the particular section

- Wrist action

The hand gestures are first fed in the program.

A wizard is then built for the user training so that whenever such gesture is repeated the program could recognize it and send it to the main java program on the device. Researches have managed to add

VI. PROCESSING

After the sensor receives vibration, it is sent to

pico projector to the arm band for an interactive approach for the user. It provides visual display. So rather than using just hand gestures we could use Skinput as a touch screen input.



viii. REFERENCES

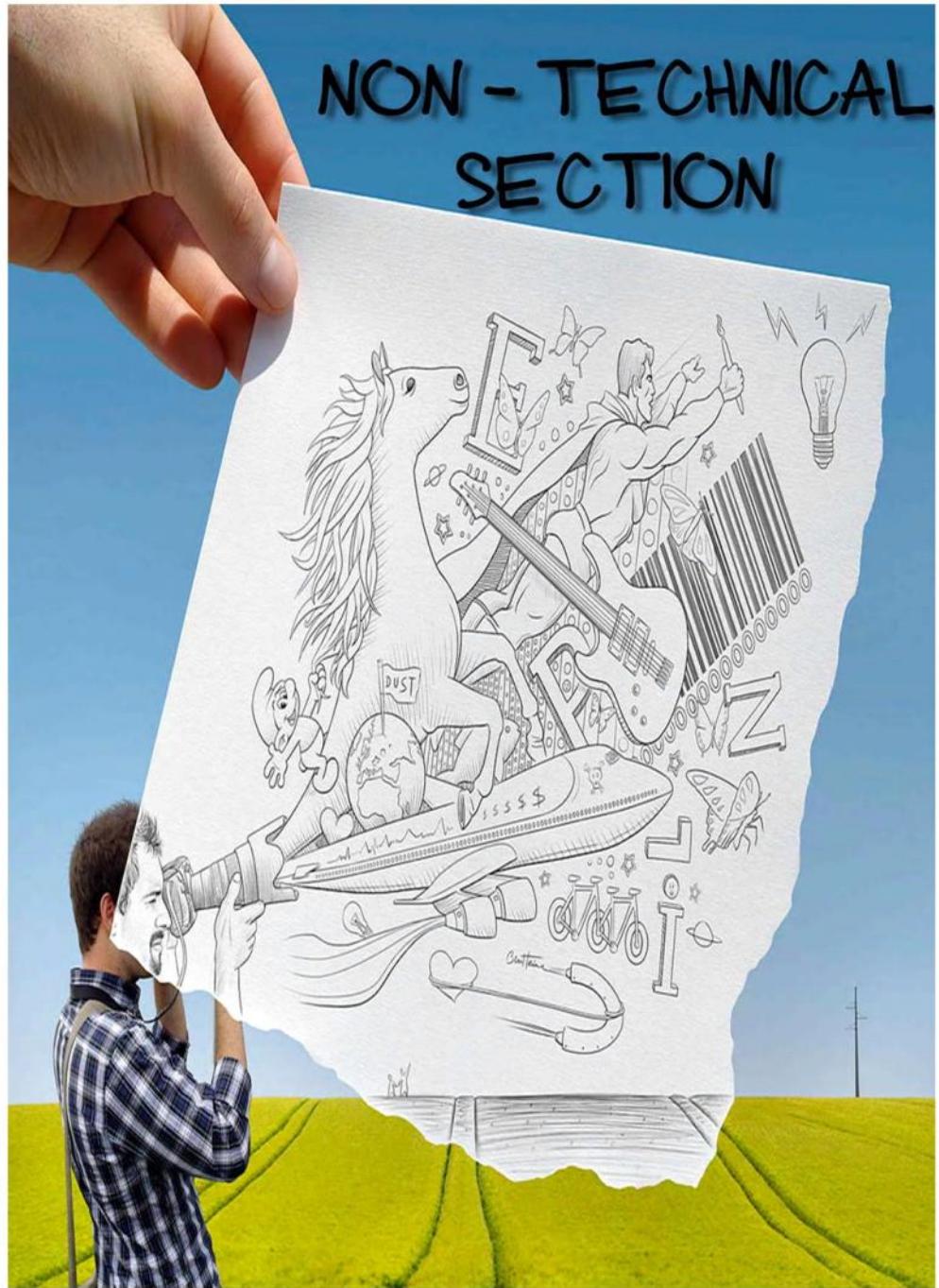
VII. FUTURE SCOPE

Skinput being always-available and portable can be used anywhere and anytime. Rather than using fire wire, wireless communication can be brought into action which can make it further portable.

- <http://en.wikipedia.org/wiki/Skinput>
- <http://research.microsoft.com/en-us/um/redmond/groups/cue/publications/HarrisonSkinputCHI2010.pdf>
- <http://www.inventorstrategies.com/latest-inventions.html>

-Sanchay Shrivastava D14

(2nd Prize Technical Section)



SCIENCE AND SPIRITUALITY


*we contemplate
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arising out of
Consciousness*

In this sub domain of Science and Spirituality, we contemplate our basic reality as Consciousness and behold this manifest Cosmos arising out of Consciousness. We'll especially consider the many uncanny, "miraculous" anomalies of this dream-like Cosmos and the Consciousness which subsumes it. We start with an excerpt on Consciousness as the basic, essential reality underlying all appearances and experiences. This

This essay comes from my upcoming book, *Spirit, Science and Deep Wonder*. Here is an old handout I've given students for many years on Cosmic Miracles, the stupendously "uncanny"—many scientists would openly say "miraculous"—fine-tunings inherent in the appearance and unfolding evolution of our physical universe, without which

there would simply be no universe. Such serendipitous miracles can give anyone evidential basis for a spiritual faith that this earthly situation of ours is not some existential nightmare of absurd meaninglessness, an entirely-by-chance "accident," but rather a wondrously beautiful and meaningful drama lit up at every turn by some kind of Divine Super intelligence. And


The reader will also find in the endnotes to this essay an especially useful set of bibliographies on physics, cosmology, parapsychology, etc.

here is a useful short paper on learning how to discern fact from fiction, along a ranging continuum from mere conjecture or fantasy to plausible possibility to some degree of likelihood (based on stronger and stronger evidence) to what we can as a society agree upon as "fact." On a very popular, controversial topic, here is an essay on Miracles, an excerpt from the first part of the Appendix, "Miracles and Other Unusual Phenomena" taken from my book Women of Power and Grace:

Inspiring Lu-minaries of Our Time [Wake Up Press, 1995]. The reader will also find in the endnotes to this essay an especially useful set of bibliographies on physics, cosmology, parapsychology, etc.

In case you think such



paranormal powers are the stuff of mere

fantasy and over-zealous reporting by cognitively-challenged "flakes" and "crackpots," here is an impressive report on the psi power of Remote Viewing, which was thoroughly studied and applied by the U.S. government at SRI (Stanford Research Institute) from 1972 to 1986, and then at the U.S. Army's Fort Meade from 1978 to 1995, with many satisfied customers, including the CIA, NSA, NRO, and other federal


Discoveries are not made by analysis of data or the rational processes of the intellect.

agencies. I include with my essay here on Remote Viewing an appendix reproducing a significant press release from the Journal of Scientific Exploration, which first revealed the phenomenon of remote viewing to the scientific world in a special 1996 issue devoted to the subject.

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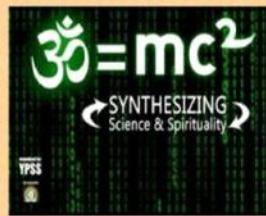
the phenomenon of remote viewing to the scientific world in a special 1996 issue devoted to the subject. Discoveries are not made by analysis of data or the rational processes of the intellect. Even when the process of discovery is associated with a massive collection and analysis of data, the actual emergence of a new perspective or relationship between facts revealing a new knowledge is an intuitive process. Knowledge issues from a ripe mind at the point of its ripeness where it

forgets itself and receives an inspiration. Discoveries come by intuition from a higher plane of consciousness when the mind is open at the mental level to new ideas. When the present level of knowledge is saturated the individual makes a genuine effort in the nerves. Open mindedness helps to receive direct knowledge which is inspiration, whereas otherwise one has to learn by indirect knowledge through inference and de-

The Western intellect is highly developed, whereas the Indian lives in the vital which is full of falsehood.



duction. Open mindness is limited by individual barriers to new ideas which make a person unwilling to accept the consequences of a new discovery: Socially: by the desire for respect or approval for one's thoughts, ideas which make a person unwilling to accept the consequences of a new discovery: So - cially: by the desire for respect or ap- proval for one's thoughts, psychologically : by negative traits such as possessiveness, jealousy, competitiveness, etc.; biologically: by habit of past experience Behavior: helps



one learn from what others have discovered. Attitude: gives us insight into the process oth- ers have fol- lowed for their discoveries and a sense of un- tapped poten- tials (but not the actual dis- coveries) Original thoughts Come from outside which our swab- hava is able to receive are to a great ex- t e n t original combina- tions of old thoughts. The discoveries we seek are not purely theoret- ical (like phi- losohpy or math). They have practical consequences. For a thought to be effective, it should be

received by the vital and physical. The Western intellect is highly devel- oped, whereas the Indian lives in the vital which is full of false- hood. But the bodies, physi- cal conscious- ness, of the Westerner are dark, whereas the Indians are light because rishis have received the light in their earthly bod- ies. Mother says India is 70% still pre- served, pure. Indians with consummate knowledge in their field and a spiritual


*Science has
reached the limits
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background will be most qualified for great discoveries. To receive new ideas mind should divest itself of existing ideas: These ideas will be supported by persons, places, prejudices, practices of their origin. Open mindness is easily seen in persons who are naturally good and constitutionally incapable of anything negative--innocent. People look at solving today's problems through today's mechanisms and conditions, which will be different by the time the problem is solved. In the 1960s scientists and economists shouted about global food shortages because there isn't sufficient land to feed a growing population. No one thought at that time of growing food without land. Science has reached the limits of its first expansion and is ready for a vertical take off. Every field rises and expands horizontally until it saturates the plane. The negative side of this scientific development is becoming more and more dominant and oppressive--radioactive fall out, ozone depletion, pollution (even from

production of useful things like paper), exhaustion of natural resources (energy, forests, water, soil).and

is ready for a vertical take off . Since the beginning of time, spirituality and religion have been called to fill in the gaps that science did not understand.

Every field rises and expands horizontally until it saturates the plane. The negative side of this scientific development is becoming more and more dominant and oppressive --radioactive fall out, ozone depletion, pollution (even from production of useful things

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to intuition. Behind the energy of nature, is a force, a will. Discovering that will and its intention will reveal much.

The will of the scientist can have power over matter.

Transcending ego (narrow motives and mental limitations and fixed notions) leads to wider discovery.

Science views the physical form as determinative. Shift from the form to the essence opens new vistas. Positive, harmonious physical discoveries of practical utility free of negative

Every field rises and expands horizontally until it saturates the plane.



Dan Brown

Principles:-
The motive (consciousness) of the scientist determines the character of his results. Only a good man can produce positive results (positive results issue out of positive, unselfish motives). •Shift from reliance on data to

*Our universe and
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consequences
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from a physical
consciousness
The physical of
Indians has
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the rishis.
**THE NEXUS
BETWEEN
SCIENCE AND
SPIRITUAL-
ITY**

The bot- tom line:

*Our universe
and the pow-
ers of Con-
sciousness (in
both its
"normal" and
"paranormal"/
nonlocal as-
pects) are far
more interest-
ing than we
have been led
to believe.*

-Sagar Valecha D11

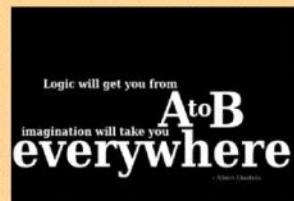
(1st Prize Non-Technical Section)

SPECIAL SEVENTH SENSE OF HUMAN-IMAGINATION

Human Imagination is the most powerful tool that has led to inventions in the field of science and technology.

Can you be brilliantly eloquent? Can you be great at anything you choose to do? Can you create wonders and invent technologies that people think can never exist? If you answer "no", then let me tell you people that yes you can! All you need to do is three things- Imagine, Create, Execute. Our mind can run away with us, leading us to act through suspicion or fear, but we can also use our imagination as a tool to achieve all those things

The historic role of the scientist is to do the unthinkable, to overturn cherished beliefs and to kill gods. Human Imagination is the most powerful tool that has led to inventions



in the field of science and technology. "A growing body of research supports what spiritual contemplatives have known for Millennia- that human capacity for imagination not only shapes our minds but also weaves the fabric of reality itself."

The correct approach to use human imagination is firstly to avoid negativity. The "I can't" attitude will always sabotage the power of your imagi-

nation Your enthusiasm can take your imagination to other levels and help you to make new wonders in field of science and technology. To execute your imagination into reality all you should do is

It was Albert Einstein's imagination along with his knowledge that let him see the relationship between space, time and energy



.try out every possible match to get the desired outcome that you have imagined.

"I am enough of an artist to draw



freely upon my imagination. Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world." -Albert Einstein

Human Imagination is not about the dreams we see at night. It is about the dreams we see at day that are cognizant of many things. Human imagination is to

,bring your creative minds into work and then imagine what you can create which others cannot imagine ever. Human imagina-

tion is a powerful tool that is available to all humans but it is utilized only by few.

Those few people who utilizes it, achieves different milestones in life. It was Albert Einstein's imagination along with his knowledge that let him see the relationship between space, time and energy.

Has anyone seen God? The answer is "no". Every God, let it be Allah, Jesus Christ or Lord Vishnu,

is also a human imagination only. God is that discovery of human imagination that man has created for its own benefit only.

"Sixth Sense", is wearable gestural interface that augments the physical world around us with digital information is again based on Human Imagination. It was purely Pranav Misra's imagination that he implemented and successfully created such a technology. It was his



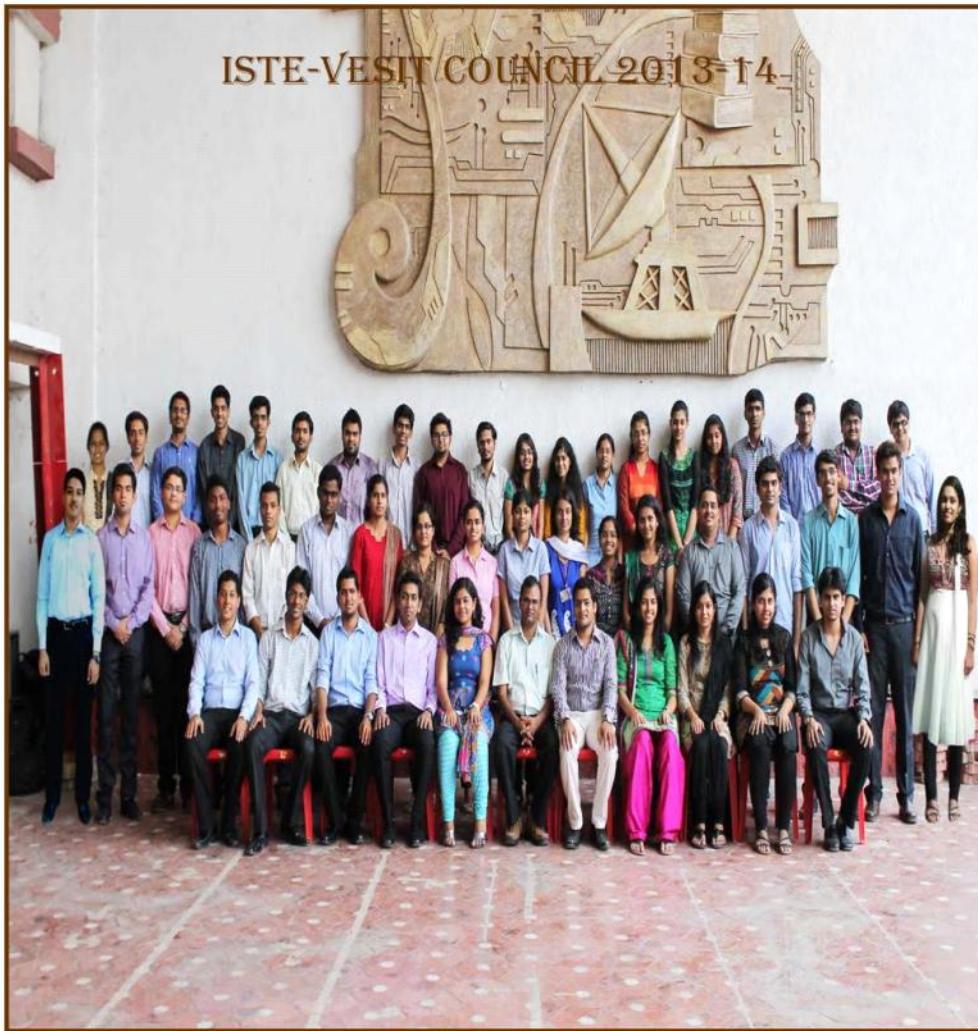
*Human
Imagination is
unleashed the
power of our
thinking and
brought about a
transformation in
us.*

.imagination to use hand gestures so as to use things just at the root of his fingertip. His device illustrates the power of Human Imagination. Human Imagination is unleashed the power of our thinking and brought about a transformation in us. A transformation from wandering in forest

to living in well settled cities. You don't need to be perfect to have imagination.

As said by Stephen Hawking -
"Although I cannot move and I have to speak through a computer, in my mind I am free."

-Usha Santuramani (D12-B)
(2nd Prize Non-Technical Section)



(From L to R)

TOP: Kalindi D., Sunit J., Praveen S., Meet G., Tejas R., Monu S., Nikhil J., Attishay A., Viren R., Amarjeet B., Arundhati S., Shreya S., Nidhi S., Ankita N., Aanchal D., Disha D., Shreejay A., Pranav C., Aakash K., Vinay Doshi

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