BRIEF PROFILE OF Prof. (Dr.) B.L.RAINA



EXPERIENCE: (Total: 30+ *yrs.*)

VC: (5+ yrs.) Director/Professorship/Research: (14+ yrs.) Industry: (10 *Yrs.*)

- **VICE CHANCELLOR, GLOCAL UNIVERSITY, UP, INDIA, UGC approved, 2015 till date.**
- **VICE CHANCELLOR, SUNRISE UNIVERSITY, Raj. INDIA; UGC approved, 2013 to 2015**
- **T.I.F.R (TATA INSTITUTE OF FUNDAMENTAL RESEARCH), Bombay, INDIA; Faculty: 1970-74**
- **E.C.U, Greenville, NC, USA; (Associate Professor) 1981-87**
- **DIVERGENT TECHNOLOGIES, Inc., Research Triangle Park, NC, USA; (C.E.O) 1987-97.**
- **NATIONAL TECHNOLOGICAL UNIVERSITY, India , ITP Campus; (Director) 2003-08**
- **GITM GROUP OF ENGINEERING COLLEGES , (GCEW), HRY; (Director) 2009-13**

PRESTIGOUS FELLOWSHIPS/AWARDS & WHO'S WHO NOMINATIONS

- **Fellowship: T.I.F.R (Bombay, India)**
- **Fellowship: FULBRIGHT**
- **Fellowship: SATHNA TRUST (Bombay, India)**
- **Fellowship: INDIA FOUNDATION (Bombay, India)**
- **Who's Who: ASIA/Pacific, (XI edition, February 2012, page 316)**
- **LIFE-TIME ACHIEVEMENT AWARD given by NICER (Dec. 2016)**

BACKGROUND

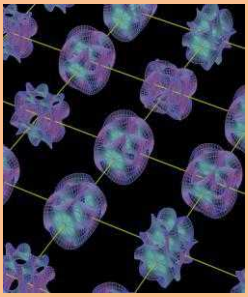
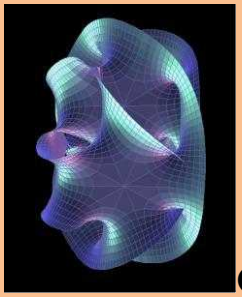
Backed by an exceptionally brilliant academic record, Prof. Raina has been engaged in administration, teaching & research for nearly 35 years now. He was awarded prestigious national fellowship of "TATA INSTITUTE OF FUNDAMENTAL RESEARCH" (T.I.F.R), Bombay, INDIA wherein he spent four years of research work and then

proceeded to USA on an International fellowship to obtain his M.Tech *(Computer Science Engineering* & PhD from 'USC', USA.

Did he not only write an exemplary research paper at an early age of his career of 10+2 standard published by reputed 'American Mathematical Society' (January 1969 page 48-51), but his paper (part of which is noted below just for reference) was also widely acclaimed and often cited (e.g., See A. Del Cintel, 2008-SPRINGER) which in a dramatic development helped various eminent Scientists like Prof. ANDRE WILE then at PRINCETON UNIVERSITY, to draw a vital connection between the ELLIPTIC CURVES and MODULAR FORMS *(See Ribet: Tanahama-Shimura Conjecture, 1986)* leading him eventually to the famous solution in 1995 of even more famous CONJECTURE (See *Annals of Mathematics, 142 (1995)*, which was unsolved for the last 350 years, earned Prof. Wiles a well-deserved 'KNIGHT HOOD' & the most prestigious award of 'FIELDS MEDAL'. Dr. Raina's above cited results have also immensely helped in the development of many subjects and more recently in 'CALABI-YAU' spaces & 'STRING Theory' in ASTRONOMY, thereby unifying the theories of 'NEWTON'S Gravitation, QUANTUM Physics & EINSTEIN'S Relativity.

PRESENT RESEARCH INTEREST

Summary: Computer visualization for the value p=5 in FLT above gives rise to a manifold called "Calabi-Yau" space having ten dimensions with vanishing RACCI Tensor and with well-known Topology and Algebraic equations. While Dr. Witten received Nobel Prize for modifying String theory, Dr. Yau at Harvard got Nobel Prize for proving the existence of a Metric on the Calabi-Yau space which is exactly the Einstein's metric. My present research interest is to describe this metric and if successful, it will have enormous implications in String Theory of ASTRONOMY and in unifying the general theory of relativity with that of QUANTUM Laws of Physics. Should this task be successful, it will also prove that there are not only four but eleven dimensions and, possibly many universes.

CALABI-YAU SPACE---(Fermat Theorem Images)

Calabi-Yau spaces are important in string theory, where one model posits the geometry of the universe to consist of a ten-dimensional space of the form $M \times V$, where M IS a four is dimensional manifold (space-time) and V Is a six dimensional compact Calabi-Yau space. String Theory predicts the existence of more than the 3 space dimensions and 1 time dimension we are all familiar with. According to string theory, there are additional dimensions that we are unfamiliar with because they are curled up into tiny complicated shapes that can only be seen on tiny scales. If we could shrink to this tiny, Planck-sized scale we could see that at every 3D point in space, we can also explore 6 additional dimensions. This animation shows an array of Calabi-Yau spaces which are projections of these higher dimensions into the more familiar dimensions we are aware of.

For more information, please find the following links:

1. ***String Theory.mp4, 2. Andrew Wiles.mp4, 3. Calabi.mp4, 4. Calabi Space Explained.mp4, 5. Calabi.mp4, 6. Calabi.mp4, 7. 4th Dimension explained.mp4, 8. String Theory.mp4, 9. String Theory..mp4, 10. Part 01_String theory.mp4***

In USA, Prof. Raina taught for more than 15 years at various Universities including Duke, 'UNC' education system; & 'E.C.U' in Greenville, North Carolina, USA etc. During his entire stay of more than 27 years in the US, Dr. Raina has obtained many grants/ projects/ consultancies and awards from various agencies some of which are noted below:

Organization	Project	Year
National Semiconductors (NSC) Santa Clara, CA, USA	Technology Transfer (Know- how) along with PG-tapes of high speed C-MOS Technology Process of NSC, USA (after add-on value i.e., increased yield) to several International Companies including '*Semi- conductor Complex Limited*' (SCL) Mohali Chandigarh, India	1990-91
BRITISH TELECOM, UK (Now NORTEL)	To decrease *the Bandwidth* requirement for full motion video (*M-Peg standard*)	1995-96

UNC at Chapel Hill Research Triangle Park, USA	**To develop teleconferencing system (Hardware & Software) using ISDN**	**1997-98**
UNIVERSITY OF FLORIDA, Gainesville FL,USA	**To Develop & install Telemedicine/distance learning connecting all the 25 prisons of North Carolina, USA**	**1998-99**
IBM, Research triangle Park, NC USA	**To Develop Distance Learning Hardware cum Software using compression decompression techniques.**	**1999-00**
AT&T, USA	**TO develop distance learning hardware/software using compression/decompression techniques.**	**2000-01**

Patents: 3

(Both hardware & Software based- list attached)

Number of PHD & PG Projects Guided: 11

Publications: (list attached)

Books Published: 1

Awards:

- **'Reguerdon Inc.' ACHIEVERS INDIA-NATION'S WHO'S WHO (May 2012 edition)**
- **Lifetime achievement award given by NICER (July, 2016)**
- **ACHIEVERS INDIA-NATION'S WHO'S WHO (2012)**
- **Fellowship: INDIA FOUNDATION (Bombay, India)**
- **Fellowship: SATHNA TRUST (Bombay, India)**

Member of the advisory board for the following institutions

1. **MRK Institute of Engineering & Technology, Rewari, HRY**
2. **Indo-Canadian Educational society, CANADA**
3. **De montfort University, Leicester, UK**

4. Starex International, Gurgaon, HRY

5. Relswan consulting Group, llc, USA

6. RKP, Narnuol, Repair, HRY

During his tenure as C.E.O of "Divergent Technologies, Inc.", NC, USA, Dr. Raina is credited with technology transfers (in collaboration with National Semiconductors at Santa Clara) of "High Speed C-MOS" (process) devices like '74HC74'to several companies in different countries including SCL- 'Semi Conductor Complex Ltd.', Mohali, Chandigarh, India. While *Dr.* Raina was declared the best researcher in 'Research Triangle Park', USA in 1994, he was also awarded many prestigious awards and was adjudged & published as "WHO'S WHO" in many publications & journals --the most recent being 'Asia/Pacific' (XI edition, February 2012, page 316) and 'Reguerdon Inc.'-ACHIEVERS INDIA-NATION'S WHO'S WHO (May 2012 edition)

RECENT ACOMPLISHMENTS

1. Was declared as 'The best researcher/administrator' in RTP, USA 1994

2. Wrote recently a high quality research paper in STRING THEORY which, if approved, has the potential to change the concept of universe.

3. Obtained two foreign University collaborations from USA and UK.

4. Have successfully obtained approvals of three UGC visits for (2f), 12(B) during the months of May & Aug 2015 and Sept. 2017 respectively for the above Universities.

5. Made certain fundamental changes in teaching methodologies which not only improved the results substantially but has put University uniquely at the top.

6. 'Reguerdon Inc.' ACHIEVERS INDIA-NATION'S WHO'S WHO (2012)

7. Made technology transfers (in collaboration with National Semiconductors at Santa Clara) of "High Speed C-MOS" (process) devices like '74HC74' to several companies in different countries including SCL- 'Semi Conductor Complex Ltd.', Mohali, Chandigarh, India.

NOTE: **Following images pertain to the snaps shots of my "patents"; " first page of my first research paper written while I was an undergraduate"; "WHO'S WHO" & "Newspaper clips".**

PATENTS: (1 of 3)







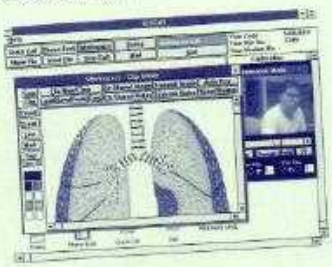
PATENTS: (2 of 3)

Synapse

DIGITAL TECHNOLOGIES, INC.

VideoLink Video Conferencing System for PCs

VideoLink is a low cost PC based video conferencing system that allows two remote sites to exchange video and data over a single standard (POTS) telephone line. The whiteboard feature allows for three users to collaborate on documents. VideoLink also supports file and image transfer and an interactive chat utility.



A complete package includes a digital video camera with a built-in microphone for video and voice capture. It also has a single board with a digitizer, sound processor and a codec. VideoLink can also operate without any special video capture hardware. In this mode of operation, a site can display incoming video images although it cannot transmit video to other sites. All the other features remain fully operational in this mode. This software-only solution is cost effective in situations where only one way video transmission is needed.

VideoLink offers point solutions to a wide variety of applications ranging from remote training and learning to conducting business meetings remotely, thereby saving time and cost of travel. Remote surveillance, remote product support, remote consultation and telemedicine are some of the applications that VideoLink supports very efficiently.

VideoLink features

- Low cost
- Easy to install and use
- Interactive document sharing
- Video transfer at 7 fps
- Support for two remotely selectable video sources
- DCT software video compression
- Auto-answering of incoming calls
- Online easy-to-use phone book
- File transfer
- Interactive chat utility

2525 Meridian Parkway, Suite 50 • Durham NC 27713 • USA
Telephone: 919 544 5806 • Fax: 919 544 8870

PATENTS: (3 of 3)

Synapse

DIGITAL TECHNOLOGIES, INC.

VC 7000 Video Conferencing System

VC 7000 is a self contained video conferencing system. Operating on the ISDN basic rate interface and Switched 56 networks, the system provides high quality, high speed live video and audio. VC 7000 can support a broad range of auxiliary devices such as additional cameras, slide to video converters, document scanners, overflow monitors, and PCs, augmenting communicating and making it more than just a videophone.



VC 7000 finds applications in many areas. In telemedicine, VC 7000 can provide the same high quality health care to remote regions as that available at large medical centers. File scanners, computers, and microscopes interfaced to VC 7000 can virtually transport the patient for a consultation with an expert radiologist or pathologist.

VC 7000 can also be used to conduct remote interviews and remote training sessions involving a large number of people. Everyone in the meeting becomes an active participant with the use of additional cameras and microphones. Even a personal computer may be attached for displaying the latest sales figures from a spreadsheet or a graphics package. Engineers at different locations can work on a design together using CAD packages resident on the PC.

VC 7000 features

- ISDN and Switched 56 interface
- Nine inch NTSC color monitor
- Single chip CCD color camera
- H.261 compliant video communication
- G.711/G.722/G.728 compliant audio communication
- V.35 232 interface for auxiliary devices
- Video up to 30 fps
- Up to 352x288 picture resolution

2525 Meridian Parkway, Suite 50 • Durham NC 27713 • USA
Telephone: 919 544 5806 • Fax: 919 544 8870

First page of my research paper written while an undergraduate

2. J. Nagura, On the interval containing at least one prime number, Proc. Japan Acad., 28 (1952) 177–181.
3. S. Pillai, On m consecutive integers, Proc. Indian Acad. Sci., Sect. A, 11 (1940) 6–12.

ON FERMAT'S LAST THEOREM

BANSI LAL RAINA, J and K University, Srinagar, Kashmir (India)

In this note we shall prove two theorems pertaining to Fermat's last theorem, which shall be referred to as FLT.

THEOREM 1. *If $p \neq 3$ and is an odd prime and*

$$x^{p-1} + y^{p-1} = z^{p-1} \tag{1}$$

holds with positive, pairwise prime integers, then z is a quadratic residue mod p. *For $p = 3$ the statement is false.*

Proof. Assume that $(xyz, p) = 1$; then by Fermat's theorem we have

$$x^{p-1} \equiv y^{p-1} \equiv z^{p-1} \equiv 1 \pmod{p}. \tag{2}$$

From (1) and (2) we get $2 \equiv 1 \pmod{p}$ which is impossible. Thus, since the integers x, y, z are pairwise prime, exactly one of them must be divisible by p.

Suppose $p \mid z$; then from (1) and (2) we have $2 \equiv 0 \pmod{p}$. Hence z must be coprime to p; also either of x and y must be divisible by p and the other one must be coprime to it.

If x and y are both odd, $x^{p-1} + y^{p-1} \equiv 2 \not\equiv z^{p-1} \pmod{4}$. Hence z must be odd and, of x and y, one must be odd and the other even.

Let us consider that x is odd and is divisible by p, so that y is even and coprime to p.

Rewriting (1) as

$$x^{p-1} = (z^{(p-1)/2} - y^{(p-1)/2})(z^{(p-1)/2} + y^{(p-1)/2}), \tag{3}$$

since x is odd and z prime to y, the two factors on the right hand side of (3) must be coprime and thus each must be a perfect $(p-1)$th power. Hence

$$\begin{cases} z^{(p-1)/2} + y^{(p-1)/2} = a^{p-1} & \text{(a)} \\ z^{(p-1)/2} - y^{(p-1)/2} = b^{p-1} & \text{(b)} \end{cases} \tag{4}$$

where $x = ab$.

Adding (4a) and (4b) we get

$$2z^{(p-1)/2} = a^{(p-1)} + b^{(p-1)}. \tag{5}$$

Since $p \mid x$ and $(a, b) = 1$, one of a and b is divisible by p and the other coprime to it. Thus from (5) we have

$$2z^{(p-1)/2} \equiv 1 \pmod{p}.$$

(Written while studying for 10+2)

WHO'S WHO



Raina, Bansi Lal

PhD; *Academic; b* August 7, 1949 Srinagar (J&K); *m,* one *d; Educ* TIFR (India), USC (USA); Director, Gurgaon College of Engg for Women, Gurgaon; Exec Member, Green Peace; Member Secy: Reach the Out-Reach, Mathematical Soc of America; Member, International Journal of Nano Systems; *Address* Director, Gurgaon College of Engineering for Women, NH-8, Bilaspur-Taoru Road, Near Bilaspur Chowk, Gurgaon 122413, India. E-mail: bansi.raina@rediffmail.com, gcewggn@rediffmail.com, info@gcew.net

NEWS PAPER CLIPS



all Business

E BUSINESS JOURNAL

CO.
A Weekly Small Business Profile

Durham tech firm inks TV and Internet

L. SCOTT TILLETT

DURHAM

What do you get when you cross a ch potato and a propellerhead?

Who knows? Whipped potatoes, ybe. One thing's for sure, though: ch a creature will be a prime target uriant for what Ben Raina of Durham- ased Divergent Technologies Ltd. has eloped.

n a nutshell, the products Raina aims sell accommodate the Internet via ression as well as broadcasting via the ernet.

"For the past 11 years, Raina has been rking to sculpt a successful business ed on his education in computer sci- e, mathematics, and video-image mpression and decompression. Now, as telecommunications walls came tumbling down and as technology turns science fiction into fact, Raina is positioning his business to take advantage of the New Information Age. "It's mind-boggling. You can do anything now," he said.

At the heart of his new venture is a product called the SetTopBox. Raina hopes this product will be embraced by cable companies he's in discussions with.

The device — which is accompanied by a cordless keyboard and mouse — sits like a cable box on top of a television set and will allow users to watch television and also access the Internet for browsing or for e-mail. It can also be attached to a personal computer for downloading and doesn't require pricey cable modems.

The SetTopBox, which has been in

Continued from page 33

TECHNOLOGIES

Continued from page 33

development for almost a year — will allow browsers to access the Internet at speeds dramatically faster than a 28.8 modem or ISDN lines, Raina said.

He's recommending that the SetTopBox service be provided by carriers for $4 a month. "The idea is to make it affordable," he said.

The box, if coupled with a camera, would also allow users to send live video images.

In addition to the SetTopBox, Raina has developed an application that brings TVs and the Internet together. The product will let consumers access real-time radio and television programming over the Internet.

Raina — who holds a Ph.D. in mathematics and computer science — hasn't always been in the business of developing Internet applications, though. He had been on a career track for teaching until several years ago, when his mother developed cancer. "It forced me to go into business," he said.

The business Raina began development of, dubbed mail also includes the sale of videoconferencing equipment.

In the past three years, Raina has sold fewer than 200 Fritsch Telecom-built videoconferencing machines that incorporate microphones, cameras and ISDN lines. The machine — the VC 7000 — sells for between $5,000 and $8,000. Raina said he developed the lighter and cheaper board used in the product.

Raina began his business in 1985 but met Lewis operating in the black only since 1988 or 1989. And that's the way Raina — a most entrepreneurs — likes to keep it. "If we're ever in the red, I usually sell a technology," he said.

In financing his business ov years, Raina has sold stock to all although he once borrowed $60,00 South Trust and $200,000 from I to develop a digitizer card.

But it has been in the develop products that the business has hit Raina said he has at times had be to balance development and sales- cusing too heavily on developin fine-tuning a product than on products.

The challenge for Raina remains to let his products aggressively.

Revenue for the company in was less than $1 million. Raina so far the million-dollar mark thi and if his new products are embra expected and if marketing is be- aggressively, it's likely for the co to pull in revenue of $4 ½ million in

WATCH

Continued from page 33

committee and was expected to lead the charge for the bill originally sponsored by Sen. Slade Gorton of Washington state.

Thousands of small businesses, especially builders and contractors, had mounted a strong campaign against union salting, alleging it is costing the country jobs because small companies are going bankrupt. Proponents of the bill said the failure by Congress to pass the bill in this year's Congress will result in more small businesses failures.

"We continue to see salting occurring among contractors in almost all states," said Lancaster Bradow, Washington representative for the Associated Builders & Contractors, a vociferous trade group against salting. Officials at the National Labor Relations Board, which administers union activities across the country, believe every worker has a right to form unions in order to protect the collective bargaining process.

NLRB's position mirrored that of the U.S. Supreme Court late last year when the highest court found that companies cannot discriminate against job applicants based solely on the fact that they are union organizers. So job applicants who are paid or unpaid "salts" for a union are "employees" under the Labor

Introduci
The New Comp
The Proven Trac

RISCORP National Insurance Company

As the only North Carolina group self-insured fund in business as an insurance company, RISCORP combines the high quality service of a self-insured fund with the security of an insurance company.

We have a reputation for pioneering innovative ways to help employers control costs while providing cost-efficient, care-effective treatment of injured employees.

RISCORP's proven managed workers' compensation programs focus on field-tested loss prevention programs, integrated claims and medical management, and aggressive return-to-work programs.

Innovative Programs,
Proven Performance,
And Experienced People

Our back wellness program

Our del
North Car
time from
unique w

Put RISC

The RI
workers'
of busine

The Pioneer

A microchip mission for motherland

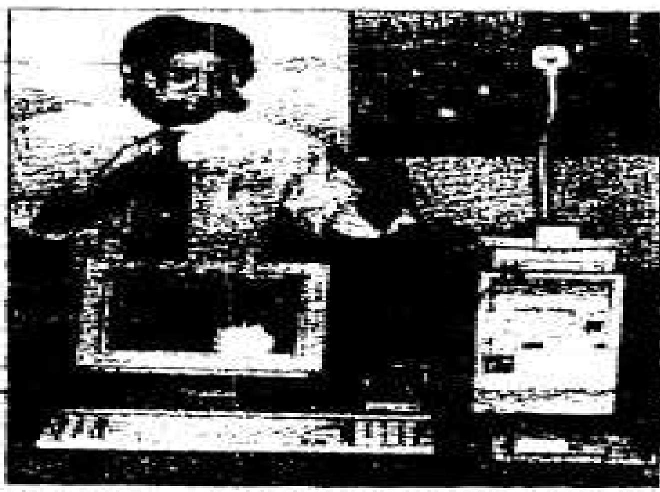
CHANDIGARH — ...

Indian Express 7-7-93

The latest 'wonder'

EXPRESS NEWS SERVICE

CHANDIGARH — You can answer a phone call, receive your fax ... R. L. Raina.



R. L. Raina demonstrating his creation at the Chandigarh Press Club on Tuesday. — Express photograph



Above temptation

— Mehit

Backhanded compliment

WHAT'S ON

Device that makes TV of a compu



पहली भारतीय 'लैपटॉप मिनी' का
पहला 'अलटी-मीडीया कंप्यूटिंग' तैयार



सनराईज यूनिवर्सिटी, अलवर

प्रकाशनार्थ

डॉ. रैना द्वारा विश्वविद्यालय के लिए अनुकरणीय अनुसंधान कार्य की संख्या – संख्या पर प्रकाशित पेटेन्टों, शोध छात्रों, इत्यादि ने कई बार अपने कार्य में प्रयोग किया है। प्रिंसटन विश्वविद्यालय के डॉ. रंजन गहाने ने उन्हें पूर्व पुरुष 'फेलो लास्ट ब्लोयर' से अनुसंधान को हल किया है तथा डॉ. रैना के अनुसंधान कार्य की भी प्रशंसा की है। डॉ. रंजन गहाने के अनुसंधान कार्य के परिणामस्वरूप दो नये क्षेत्रों 'जलवायु तू लंबन' और 'फेस स्लाइड' का विकास हुआ। जिससे स्थानांतर भौतिकी और खगोलिकी के सम्बन्ध सिद्धान्तों के सिद्धांतों को आधार में सम्बन्ध स्थापित करने में सहायता मिली। अनुसंधान कार्य से प्रमाणित हुआ है कि गलत आकाशों में अन्तरिक्ष में कार्य में सफलता जा सकता है। जिससे अन्तरिक्ष में कई प्रक्षेपण होने के सम्बन्ध का अनुमान लगाया जा रहा है।

उल्लेखनीय है कि डॉ. रैना शोध कार्यों में 'जलवायु तू वर्गीकरण' के आइंस्टीन के पॉइंट पर कार्य कर रहे हैं। जिसका अनुमान हार्वर्ड विश्वविद्यालय के नोबेल पुरस्कार विजेता डॉ. गाल ने लगाया था।

डॉ. रैना ने लगभग 35 साल के अकादमिक शिक्षण और अनुसंधान के दौरान टीआईएफआर, मुंबई, इंपीयू (एनवी, संयुक्त राज्य अमेरिका) तथा सीईआरएन (यूरोपीय संयुक्त राज्य अमेरिका) सुमारदि महत्वपूर्ण संस्थाओं के साथ कार्य किया। डॉ. रैना को वर्ष 1994 में आर्टटीपी (संयुक्त राज्य अमेरिका) ने सर्वोत्तम वैज्ञानिकों का पुरस्कार से सम्मानित किया था।

डॉ. रैना देश के स्थानीय महाविद्यालयों एवं विश्वविद्यालयों में शोध संस्कृति को प्रोत्साहित करने के लिए प्रयासरत है। उनके अनुसार प्रत्येक व्यक्ति में प्रतिभाशाली कुशल तथा गुरु होते है, जिसके लिए वे युवाओं को अपनी प्रतिभा को पहचानने में सहज कर रहे है। जिससे देश के विकास में सहज मिलेगी।

डॉ. रैना अन्तर्राष्ट्रीय व्यायामों में शोध कार्य में कार्यरत युवाओं, वैज्ञानिकों तथा अध्यापकों, इत्यादि को नैनो टेक्नोलोजी, खगोलविज्ञान, जलवायु विज्ञान, औषधि अनुसंधान तथा अन्य वरिष्ठ उपयोगी विषयों में सह कार्यकर अनुसंधान कार्य करने के लिए प्रेरित कर रहे है। डॉ. रैना ने भारत सरकार के शोध कार्यों में कार्यरत शोधार्थियों के सम्मेलन में प्रतिनिधि करने की प्रशंसा की है। उन्होंने आशा व्यक्त कि शोध के क्षेत्र में युवाओं का भविष्य उज्ज्वल होगा तथा देश को बहुत लाभ होगा।

Written & prepared by Dr. Kuldeep Singh, OSD to Vice Chancellor, Sunrise University, Alwar for Press

Sunrise University
(PU Under Rajat Kumbha Act)

ग्लोकल विश्वविद्यालय, सहारनपुर

प्रकाशनार्थ

19 मई, 2016

ग्लोकल विश्वविद्यालय, सहारनपुर के उपकुलपति डॉ. वी. एस. रैना ने विश्वविद्यालय में स्थापित फैकल्टी तथा उच्च स्तरीय इन्फ्रास्ट्रक्चर का छात्रों के प्रशिक्ष निर्माण के लिए यूएट उपयोगी बताया। ग्लोकल विश्वविद्यालय में गुणवत्ता पूरक, सिक्स डेवलपमेंट तथा प्रैक्टिकल शिक्षा पर जोर दिया जा रहा है जिसके परिणाम से पॅम. डी. वी के विद्यार्थी को सवाए लाख के वार्षिक पैकेज पर सन्टन, यूनाइटेड किंगडम की कंपनी में सेलेक्ट किया गया है।

डॉ रैना ने विश्वविद्यालय में जारी रिसर्च की जानकारी देते हुए बताया की उन्होंने किशोरावस्था में जो रिसर्च की उससे टी. आई. एफ. आर. मुंबई तथा अमेरिका के कई विश्वविद्यालय में रिसर्च तथा टीचिंग करने का मौका मिला।

डॉ रैना द्वारा किशोरावस्था में किये अनुकरणीय अनुसंधान कार्य की संख्या – संख्या पर प्रकाशित पेटेन्टों, शोध छात्रों, इत्यादि ने कई बार अपने कार्य में प्रयोग किया है। प्रिंसटन विश्वविद्यालय के डॉ. रंजन गहाने ने उन्हें पूर्व पुरुष 'फेलो लास्ट ब्लोयर' के अनुसार को हल किया है तथा डॉ रैना के अनुसंधान कार्य की भी प्रशंसा की है। डॉ रंजन गहाने के अनुसंधान कार्य के परिणामस्वरूप दो नये क्षेत्रों 'जलवायु तू लंबन' और 'फेस स्लाइड' का विकास हुआ। जिससे स्थानांतर भौतिकी और खगोलिकी के सम्बन्ध सिद्धान्तों के सिद्धांतों को आधार में सम्बन्ध स्थापित करने में सहायता मिली। अनुसंधान कार्य से प्रमाणित हुआ है कि गलत आकाशों में अन्तरिक्ष में कार्य में सफलता जा सकता है। जिससे अन्तरिक्ष में कई प्रक्षेपण होने के सम्बन्ध का अनुमान लगाया जा रहा है।

उल्लेखनीय है कि डॉ रैना शोध कार्यों में 'जलवायु तू वर्गीकरण' के आइंस्टीन के पॉइंट पर कार्य कर रहे है। जिसका अनुमान हार्वर्ड विश्वविद्यालय के नोबेल पुरस्कार विजेता डॉ. गाल ने लगाया था।

डॉ रैना ने लगभग 35 साल के अकादमिक शिक्षण और अनुसंधान के दौरान टीआईएफआर, मुंबई, इंपीयू (एनवी, संयुक्त राज्य अमेरिका) तथा सीईआरएन (यूरोपीय संयुक्त राज्य अमेरिका), इत्यादि महत्वपूर्ण संस्थाओं के साथ कार्य किया। डॉ रैना को वर्ष 1994 में आर्टटीपी (संयुक्त राज्य अमेरिका) ने सर्वोत्तम वैज्ञानिकों का पुरस्कार से सम्मानित किया था।

डॉ. रैना देश के स्थानीय महाविद्यालयों एवं विश्वविद्यालयों में शोध संस्कृति को प्रोत्साहित करने के लिए प्रयासरत है। उनके अनुसार प्रत्येक व्यक्ति में प्रतिभाशाली कुशल तथा गुरु होते है, जिसके लिए वे युवाओं को अपनी प्रतिभा को पहचानने में सहज कर रहे है। जिससे देश के विकास में सहज मिलेगी।

डॉ रैना अन्तर्राष्ट्रीय व्यायामों में शोध कार्य में कार्यरत युवाओं, वैज्ञानिकों तथा अध्यापकों, इत्यादि को नैनो टेक्नोलोजी, खगोलविज्ञान, जलवायु विज्ञान, औषधि अनुसंधान तथा अन्य वरिष्ठ उपयोगी विषयों में सह कार्यकर अनुसंधान कार्य करने के लिए प्रेरित कर रहे है। डॉ रैना ने भारत सरकार के शोध कार्यों में कार्यरत शोधार्थियों के सम्मेलन में प्रतिनिधि करने की प्रशंसा की है। उन्होंने आशा व्यक्त कि शोध के क्षेत्र में युवाओं का भविष्य उज्ज्वल होगा तथा देश को बहुत लाभ होगा।

ग्लोकल विश्वविद्यालय का इलेक्ट्रॉनिक्स विज्ञान सांस्, नेनो टेक्नोलॉजी, वी. एल. सी. आई डिजाईन, मेडिकल इलेक्ट्रॉनिक्स, एप्लीकेशन तथा स्पेस उपयोगी उन्नत सेंसर निर्माण इत्यादी पर रिसर्च कर रहा है इलेक्ट्रॉनिक्स डिपार्टमेंट जल्दी ही सांस टेक्नोलॉजी तथा नेनो टेक्नोलॉजी पार्क खोलने के साथ साथ नये कोर्स भी शुरू करने जा रहा है सांस टेक्नोलॉजी में आने वाले पांच से सात सालों में कई लाख नौकरीया निकलने की उम्मीद जताई जा रही है















Qualification: **M.Tech (Gold Medalist) & PH.D *(USA)*** **Date of Birth:** **7th August, 1949**

Communication Address:

70/4-A, Timber Road, Janipur, Jammu-180007

Phone: +919419194584; +918392939381 **Email: bansi.raina@rediffmail.com**

References:

1. **1. Prof. (Dr.) Vivek Kochhar, Joint Director, Peoples Group, Ph: 9425155050, 7024123380 vivek.kochhar@gmail.com**
2. **Dr. Chand Jotshi, University of Florida at Gainesville, Florida-USA, PH: 0113528704393**
3. **Dr. Raj Kumar, Director, MRK Institute of Engineering, Rewari, HRY, INDIA, PH: 9818964362**