

Chairman's Message



Dear Members

I appeal to all the members to renew your valuable membership. If you have not paid the dues kindly do so at the earliest.

The INDICON 2010 is progressing well in Jadavpur University, Kolkata, as a major activity of Kolkata Section and the India Council on 17-19 December 2010. Best wishes to Prof. Kalyan K Mallik, the Chairman of the IEEE Kolkata Section which is organizing the event.

IEEE Bangalore Section has started a novel technical meeting series called 'TechFridays - Engineering Lecture Series'. It is a two hour program consisting of three technical talks of 40 minutes each from 4:00 – 6:00 on Fridays. Dr. Ramachandran Ramjee, Principal Researcher, Microsoft Research India, Manish Gupta, Director, IBM Research – India, and Dr. Rajeev Rastogi, VP and Head, Yahoo! Labs Bangalore are giving the inaugural 'TechFridays' talks on 12th November.

I am glad to share with you all that the IEEE India Office finally has been located at Prestige Meridian, S-306, Block 2, Level 3 Mahatma Gandhi Road, Bangalore and was inaugurated by Mr. Pedro Ray, IEEE President on 29th October 2010. Mr. Pedro Ray, President and I cut the ribbon and lighted the lamp together to mark the beginning of a significant step in the contribution of IEEE in India towards development and growth of quality education, technical activities and collaborations, IEEE standards, rural health care and humanitarian challenges.

2011 Region 10 Meet (5,6 March 2011) is scheduled at Sheraton Mustika Yogyakarta Resort and Spa, in Indonesia. All members should think about issues and activities of interest to IEEE fraternity in India and communicate to the Section chairs and India Council chair so that relevant proposals can be proposed and discussed at the Region 10 meet.

On behalf India Council and all the 10 Sections, I am glad to welcome Pune Section, approved by MGA, as the 11th Section in India. Dr. Bharat S Chaudhari has been nominated as the interim Chair of the section. Dr. Bharat S. Chaudhari is the Dean - Planning and Development and Professor and Head - Dept of Advanced Networking and Telecom at International Institute of Information Technology, P-14, Pune Infotech Park, Hinjawadi, Pune-411057, India

We are coming to the end of the year and therefore it is important for all the volunteers and officers of the respective IEEE entities to file the respective activity reports.

With best wishes to the IEEE fraternity in India,

Kasi Rajgopal
kasi.rajgopal@ieee.org

Message from India Council Secretary



Dear valued IEEE Members,

It is heartening to witness the inaugural function of the IEEE India office held at Bangalore on 29th October, 2010. Dr. Pedro Ray, the IEEE President inaugurated the Indian Office in the august presence of some of the Executive Committee Members, Chairs and Representatives of India Council and Bangalore Section. Office is located in the Prestige Meridian Complex at MG Road which is easily accessible by any one. Recruitment of staff by HQ for this office is in progress. Official date of work commencement and facilities provided by this office will be known in due course.

Coming to the membership activities, I hope that all IEEE Indians are availing the USD 50 Membership dues for 2011 IEEE Membership by choosing the electronic category of Membership. Students can still avail the facility of Indian Rupee payment for remitting their 2011 dues.

INDICON, 2010 is scheduled on 17th - 19th of December, 2010 at Kolkata. I extend a warm welcome to all the members participating in this great event of India Council organized by the IEEE, Kolkata Section.

The International workshop on Institutional and Programming Accreditation: Connections and Opportunities is scheduled by the IEEE Headquarters at Bangalore on 20-22nd January 2011. IEEE President 2011 Dr. Moshe Kam is one of the key Indian speakers among several other renowned personalities from India and abroad.

Details of the same will be communicated separately.

I request all the Members to give wide publicity for all your Sections' activities also through IEEE India Council Newsletter.

Wishing you all success.

Yours Sincerely,

K. RAMAKRISHNA

Secretary, IEEE India Council
Email: kramakrishna@ieee.org

That's IT in October 2010

By Prof. S. Sadagopan



In the **general developments**,

- **Commonwealth Games** went off well (after much maligning by the global media, thanks to multiple scams in project execution) with India putting up a grand show and the Indian team winning record number of 101 medals during October 3-14, 2010.
- This year's **Nobel Prizes** were announced in October 2010
- October 25, 2010 also saw the announcement of the second **Infosys Science Prize**
- The 13th Edition of **IT.Biz** (earlier **IT.com**) annual IT event in Bangalore (the first such events in India) went off well during October 28 – 30, 2010
- UID rollout in Karnataka started on October 8, 2010
- Preparations for President Obama's visit during Nov 5 – 8, 2010 are in full swing

In the **technology** arena

- The 25-year old **BIOS** (Basic Input Output System) gives way to the new standard **UEFI** (Unified Extensible Firmware Interface) "boot up" software with PCs in the future likely to "start-up" faster

In the **products** arena,

- **Rediff** launches mobile push e-mail at a very affordable price of Rs 50 / month on October 20, 2010
- **HP** tablet PC "**Slate 500**" launched on October 25, 2010
- **Microsoft** CEO Steve Ballmer announces Windows Phone 7 on October 11, 2010 and the handsets set to go for sale from November 8, 2010
- **Android** powered Sony TV launched on October 14, 2010
- **Google Instant** launched in India on October 1, 2010 (global launch on September 8, 2010)
- **Barnes & Noble Nook Reader** color e-Book Reader launched on October 26, 2010 for shipment starting November 19, 2010
- **Samsung** launched Galaxy Tab P100 tablet PC running Android 2.2 in India for a steep Rs 38,000 on October 29, 2010
- **SPICE** launches 3D handset in India for Rs 5,000

In the **market-place**,

- **Coal India** IPO on October 8, 2010 is a record success and fires the market; raising more than Rs 15,000 crores and getting oversubscribed more than 15 times it surpassed the record set by Reliance Power IPO
- **Sensex** at 20,272 on October 31, 2010 (BSE <http://www.bseindia.com/histdata/hindices.asp>)

The **Indian IT Companies** continued to do well

- **TCS** creates history with record quarterly revenue in July – September 2010; it is the first Indian IT company to cross \$ 2 billion revenue in a quarter

- **Cognizant** posts record business with \$ 1.22 billion revenue in July – September 2010
- **Zensar** starts delivery center in Shanghai in October 18, 2010
- Indian mobile handset maker **Micromax** enters UAE, Kuwait, Oman and Qatar markets on October 5, 2010

MNC Companies in India continue to grow their India operations

- **GE Bangalore** designed low cost PACS devices enter the medical electronics arena
- **CA** (Computer Associates) invests \$ 30 million in Hyderabad facility
- **Panasonic** announced its plan to double headcount in India to 40,000 in the next 2 years and invest Rs 1,000 crores in Jhajjar plant in Haryana
- **Alcatel Lucent** launches its Regional Data Center (4th global center) in Bangalore in October 2010
- **Adobe** to invest \$ 50 million in NOIDA campus and another \$ 50 million to expand Bangalore facility

In telecom

- **Tata DoCoMo** is the first (other than public sector BSNL) to announce the launch of 3G in India (from November 5, 2010 on Deepavali)
- In its third year **Apple** is the No 4 global handset manufacturer (Nokia has 32%, Samsung has 21%, LG 8%, Apple 4% with other brands accounting for 30% of the market share); Apple went ahead of RIM (Research in Motion) that makes BlackBerry phones, that has just 3.6% of the total 340 million handset sales in July – September 2010

In the Education & Research front

- Online CAT examination (for admission to IIM's) started on October 27, 2010 without any glitches (compared to the fiasco of 2009)
- Bangalore-based NIMHANS becomes an Institute of National Importance on October 20, 2010
- This year's Nobel Prizes details
 - Announced on October 4, 2010, this year's **Nobel Prize in Medicine** went to **Dr Robert Edwards of Cambridge University, UK** the man credited with the creation of the world's first "test tube baby" way back in 1978
 - The **Nobel Prize in Physics** for the year 2010 announced on October 5, 2010, went to Professor **Andre Glem** and Professor **Konstantin Novoselov** both of **University of Manchester, UK** for their ground breaking experiments involving "Graphene" – one atom thick sheet of carbon that is super strong and conductive – that will significantly impact electronics industry in the decades ahead.
 - Announced on October 6, 2010 the **Nobel Prize in Chemistry** went to **Professor Richard Heck of the University of Delaware, USA, Professor Ei-ichi Negishi of Purdue University, USA** and **Professor Akira Suzuki of Hokkaido University, Japan** for their pioneering work related to

palladium catalyzed cross couplings in organic synthesis that leads to significantly better ways of manufacturing many materials and in electronics industry.

- **The Nobel Prize for Literature** was announced on October 7, 2010; it went to **Mario Vargas Llosa** of **Peru** for her outstanding work in the form of series of novels starting with “The time of the hero (1963)” that brought out the power structure and struggles within Peruvian Army and civil society.
- The **Nobel Peace Prize** was announced on October 8, 2010. This year’s Prize went to **Liu Xiaobo** of **China** (who was a visiting professor at **Columbia university**, USA earlier). Mr. Xiaobo was conferred this honor in recognition of his long and nonviolent struggle for freedom and universal rights in China. Incidentally, he is the first Chinese to receive the Nobel Prize.
- Announced on October 11, 2010 the **Nobel Prize in Economics** for the year 2010 went to Professors **Peter Diamond** and **Dale Mortenson** of **MIT, USA** and Professor **Christopher Pissarides** of the **London School of Economics, UK** for their pioneering work on “markets with search friction” – the theory that explain as to why so many people are unemployed though there are many job vacancies or the paradox of so many houses lying vacant though there are many desperately looking for houses!
- This year’s **Infosys Science Prize** details
 - Professor **Sandeep Trivedi** of **TIFR** is the winner of the **Infosys Physical Sciences Prize** for the year 2010. He was recognized for ingenious way of solving two of the outstanding puzzles of superstring theory.
 - The **Infosys Science Prize 2010 for Engineering Sciences** went to Professor **Ashutosh Sharma** of the Chemical Engineering Department of **IIT, Kanpur** for his fundamental contribution to the fields of surfaces and interfaces with potential application to MEMS and optoelectronics.
 - Professor **Chandrashekhara Khare** of **UCLA (University of California, Los Angeles), USA** is the winner of the **Infosys Mathematical Sciences Prize** for the year 2010 for his contributions to number theory and for setting the famous “Serre Conjecture” in the affirmative.
 - The **Infosys Science Prize 2010 for Social Sciences (Sociology)** went to Professor **Amitava Baviskar** of the Institute of Economic Growth (IEG), Delhi, for her study of social and environmental movements in modern India with significant impact on the dilemma between industrial growth and human development.
 - The **Infosys Science Prize 2010 for Social Sciences (Social Anthropology)** went to Professor **Nandini Sundar** of Delhi School of Economics for her brilliant analysis of social identities including caste and tribe in Northern India, an area that has significant action in the political economy of India in the past decades, but had not received significant amount of scholarly attention.

- The **Infosys Science Prize 2010 for Biological Sciences** went to Professor **Chetan Chitnis** of **ICGEB** (International Centre for Genetic Engineering and Biotechnology), **Delhi** for his deep studies on the interaction between malarial parasite and its host; his work paves the way for the first-ever malarial vaccine in the near future, thereby saving millions of lives in countries including India.

In the **people** front

- **Leo Apotheker** (ex SAP senior executive) becomes **HP CEO** on November 1, 2010
- **NetApp** senior management team visits Bangalore during October 3 - 5, 2010
- **Brazil** elects Dilma Rousseff as the first woman **President** on October 31, 2010

On the **infrastructure** front

- NTPC 500MW Jhajjar plant in Haryana was commissioned on October 11, 2010
- Hospet in interior Karnataka gets a 5-Star Hotel (Royal Orchid)

Some **interesting numbers**

- India gets record FDI inflow of \$ 6 billion in October 2010
- ETS (Educational Testing Service) announced that its TOEFL (Test of English as a Foreign Language) test takers exceeded 25 million students by October 2010
- UK to slash 500,000 public sector jobs
- Mysore celebrated 400th Dasara celebrations in October 2010
- Nokia sells 110.4 million of the 340.5 million mobile handsets during July – September 2010 quarter
- India's Forex reserves on October 31, 2010 stood at \$ 294 billion (**Reserve Bank of India**)
- Sensex (Bombay Stock Exchange index) rose to 20,069 by September end; touched 20,000 on September 21, 2010 (**Yahoo Finance**)

IEEE CS R10 (India) Training for CS Chapters

Report by : Satish Babu

**R10 Co-ordinator, Geographic Unit Operations Committee
IEEE Computer Society**

The IEEE Computer Society GUOC meeting held at Denver in June 2010 discussed several ways of enhancing member services delivery. One suggestion that came up inter alia was to have face-to-face meetings in Regions where trainings could be provided Chapter leaders to enhance membership services delivery. Two Regions offered to take up pilot meetings: Region 1 and Region 10. It was decided to have the Region 1 meeting in August 2010. However, Region 10 was too large to have a single meeting of all Chapter leaders, and as a beginning, it was decided to take up all Chapters in India as the second pilot. Nita Patel, R1 GUOC Co-ordinator was designated the lead organizer for the R1 program and Satish Babu, R10 GUOC Co-ordinator was designated as the lead organizer for the event in R10.

The Region 1 meeting was successfully conducted during August 2010. The trainers (John Daniel, Nita Patel and Jim Ziobro) shared their training material online with the other Regional Co-ordinators.

Background

The experiences of Region 1 as well as the material prepared for the event were valuable resources for planning for the R10 training program. The planning process was kicked off after Pieter confirmed both the R1 and R10 (India) training events during June 2010. Prof. SV Sankaran, VP (MGAB), was also brought in into the planning team from this time. The actual planning took place through several conference calls, mostly involving Pieter, Sankaran and Satish.

It was decided to invite leaders of CS Chapters of all Sections in India as well as the leadership from Student Branch CS Chapters. After a discussion with the potential participants, Hyderabad was chosen as the location for the one-day training program, both on account of its central location, as well as because it would be easier to obtain facilities for the event in this metropolis.

The Hyderabad Section Chair, MGPL Narayana of Tata Consultancy Services (TCS, the largest IT company in India)—himself the immediate past Chair of CS Chapter of Hyderabad Section—offered to support the event. He was also instrumental in obtaining support from TCS in terms of the meeting venue free of cost.

It was estimated that most of the 9 Section CS Chapters in India would send their representatives for the event. In addition, about 4-5 student representatives were also expected. IEEE CS committed to support airfare for the Section CS Chairs, and train fare for Student Branch CS Chapters.

There was some difficulty in identifying Student Branch CS Chapters, and we could finally identify only about 8. In some of the cases, students had examinations that overlapped with the dates of the event, and thus could not make it.

The Event

The Event was conducted on 20th November 2010, after welcome by Satish, and an introduction to the event by the Session Chair, SV Sankaran, the participants introduced their Chapter and Chapter Activities. This took about 45 minutes to complete. The participants were very interested in the activities conducted by other Chapters, and listened with interest. SV Sankaran started the first session on the basics of IEEE and IEEE CS. Many participants were unaware of these basics, especially the students. The audience had several veterans as well, who knew most of the basics.

The highlight of the second session by Aditya Rao was a hands-on demonstration of several online tools that IEEE provides (SAMIEEE, eNotice, ListServ and the vTools family of tools). This was exceedingly interesting for many participants, especially the students and relative newcomers to IEEE CS.

To save time, a working lunch was served while Aditya's session was on. The participants had lunch, and then took a 10-minute break before resuming.

The next session was on Advanced Topics by Satish, and included Management Tips, Chapter Organization, Event Management, Funding and Communication tools.

The next session was on Leadership Skills Development by MGPL Narayana, who had extended the material from the R1 event with information from his personal experiences, providing an exceedingly interesting session.

Discussions

The last training session was followed by discussions, which brought out several concerns and clarifications which are summarized below:

- ♦ Chapter representatives expressed a concern that different IEEE units were organizing events in different geographies without even an intimation to the local Section/Chapter leadership.
- ♦ Participants said that such intimation could be useful in many ways: (a) the local unit could help out the event; (b) it could help local leadership answer queries from members in the region about such events; and (c) there would be a degree of quality control over the event.
- ♦ Some participants experienced difficulties in locating appropriate speakers under the NDLP
- ♦ Several chapters expressed financial difficulties. Others raised the issue that often Sections were cash-rich whereas CS Chapters had no access to these funds. It was pointed out that
- ♦ Chapters can request for funding from Sections and in most cases, they were supported by the Sections
- ♦ It was pointed out that Chapters needed guidance and hand-holding in organizing Conferences with CSDL/Xplore support
- ♦ Some members pointed out that IEEE CS is behind some of the other Technical Societies in funding chapters, motivational awards and recognitions etc (for example, PEL has many more awards)
- ♦ It was pointed out that CS should better integrate Chapters to make them act as extension points for CS
- ♦ Members wanted to know if CS could use webinars and other online training methodologies for better communications with chapters

- ♦ The sponsorship terms of IEEE conferences were seen to be restrictive as these could not be organized jointly with for-profit entities such as companies. This raises difficulties in organizing events
- ♦ Several members pointed out that member and chapter information on SAMIEEE was sometimes outdated
- ♦ Some student members pointed out that there was apathy among some members and would-be members on account of lack of awareness of benefits. Similarly, girl students were not aware of WIE and its benefits. This needs better communication strategies
- ♦ Other student CS Chapter concerns included lack of seed capital; funding deficits; lack of training for volunteers; poor interaction with section; poor professional networking between
- ♦ IEEE members and students; and faculty advisors considering that IEEE fees were very high
- ♦ Since some of the participants had not prepared the questions/concerns, it was decided to give them another chance to raise them after the meeting. It was decided to create a FAQs based on the concerns raised, and put it up on the website.

Quiz and Feedback

At the end of discussions, the participants were given the quiz and the feedback form. Responses to the Quiz indicated a reasonably high degree of awareness of topics. Some of the students had some amount of difficulties on a few questions.

The feedback to the event was uniformly and consistently positive. 'Very Satisfied' ratings dominated all the questions relating to the level of satisfaction. Some of the suggestions pointed out included:

- ♦ More time is required for the hands-on sessions
- ♦ The entire program should have been for a longer duration for the students
- ♦ Chapters need to be better integrated into Global events and practices
- ♦ Some more networking and brainstorming to feel part of a global society
- ♦ More focus on India-specific issues
- ♦ Implementing similar training on campuses
- ♦ Similar trainings required on other aspects of IEEE CS (eg., standards)

Conclusion

The IEEE CS India training proved to be an exceedingly valuable occasion to touch base with CS Chapters and Student Chapters. This is for the first time that such a group—consisting of Chapter, Student Branch Chapter and GUOC/MGA representatives—are meeting together. While the group was diverse in terms of age, seniority and exposure to IEEE, the diversity actually proved to be valuable in provoking discussions and clarifying points about the structure and functioning of IEEE CS units.

It is hoped that the enthusiasm generated at the meeting would translate to further growth in membership and member-related activities.

Thinking Beyond Business, Science and Religion Driven World

P.G.Poonacha (poonacha.pg@gmail.com)

Poonacha received Ph. D. in Electrical Engineering from IIT Kanpur in 1986. He was a faculty member in EE Department at IIT Bombay between 1986 and 1996. He is currently with Epigon Media Technologies Pvt Ltd. He is also a Consulting Professor at IIIT Bangalore.



"Grandma, today we had a class on economics in the school. Our teacher was all excited and was talking about importance of economic activity or money generation. After explaining some basic things about how rich some nations are and how their business people maximize money generation by efficient use of human intelligence for innovation. We were asked to tell how much money we want to make by the time we turn forty. Raj told that he wants to be a billionaire by the age of forty. I told that I want to have million dollars by the age of thirty five. First I thought of rupees then felt shy to say it as others as well as our teacher were only talking about dollars and how rich is US etc.. Teacher also told us about great management schools which do research on generating more money through business by using all available resources as efficiently as possible. I have got Raj, John and Ahmed also with me today to hear more about the problem our society is facing in the grips of money and very ambitious business people guided by focused management theories on how to exploit all resources to maximize money generation.", said Ram acting very mature for his age.

"I agree with you Ram." said Grandma. "It is very important for all of us to remain active, generate enough money and work for a better life. Because of such thinking and efforts we have so many products today in the market which help humans live a better life. Unfortunately, we are also left with lot of known and unknown main or side effects on our universe and all creatures in it. This is due to the economic objective driven by only business whose target is to maximize money generation and put business more important than everything else. This is necessary for an active society but not sufficient if we want a robust universe. It would be good if we can identify needs of our universe for a better and happy living for all creatures. Towards that end it may help to create research centers for interested humans to think beyond business, normal science, engineering and religion."

"You sound very positive today Grandma. Will you tell my mother to make some dosas for us?"

Ram was in great mood.

"Ram come and take dosa plates. His mother called from the kitchen. "Welcome Raj, John and Ahmed. Does Ram waste your time talking all nonsense? I am worried about your performance in the class. Grandma is not at all worried. That is a big problem for me."

"Thanks aunty. We came today to escape from routine homework and listen to Grandma. In school we study well. You can ask any of our teachers. Don't worry about Ram." Ahmed said feeling good that he could talk like that. Ram was feeling very nervous.

"Great. But first I want all of you to do well in exams and in life. Then you can think of doing something to make this Earth a better place to live. Raj, what do you want to do in life? I don't have any hope on Ram." Ram's mother looked serious.

"Today please leave us to listen to Grandma. First we want to make enough money to live a normal life. In addition we also want to do some thing by which our future generations will be P.G.Poonacha (poonacha.pg@gmail.com)"

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proud of us. Grandma wants someone to create universities which will not be used by business men to make more money. Research in that university will focus on discovering essential laws to understand natural harmony and methods to lead a better life. We want to know more about it."

Raj said and others nodded.

"Just one hour for all discussion. Then back to studies Ram." Ram's mother was not impressed. Past: Dominated by Religion, Gods and Rituals

Grandma's face brightened up. Let us begin by thinking about how human society made progress or changes in the past before scientific thinking started dominating human thinking. Essentially,

we could look at Koran, Bible and Geetha and their influence on society. As far as we understand all of them talk about

God and human relationship with God. There are dos and don'ts which can help us live a good life on this Earth. It was a result of whole lot of studies on understanding human behavior in relation to God. One of the most interesting drawback of our past efforts was that lot of it was based on faith with very little or no verifiability. This led to a lot of practices and exploitation in the society by people who wanted to exploit others to live a good and easy life.

Most of the principles were not useful to earn a livelihood to meet practical demands of life which is very essential. As a result, gradually society drifted away from such practices and caught onto scientific approach which promised verifiability and open thinking and was not based on any religion. In addition it could provide jobs to many who could never dream of better life before.

"Grandma, what is your take on God? Is there God?" Ram asked.

"Ram, I think a proof about God definitely can be very difficult as the fundamentals are not at all clear. But one gets curious about the concept all the time. I am sure you will agree that all of us can stand out from our body and watch our actions. You can say, this is my finger, this is my head, this is what I am thinking etc.. This means I am different from all my body and its parts. This is an amazing feeling for me.

Now if I can search my body I may not find "I" in it but all of us feel the same way. Does this mean Ram, Raj, John and Ahmed all are different or we and all others are part of the same energy called God in different forms? This energy perhaps may not satisfy standard Physics conservation laws or transformation laws. Otherwise, we would have used God to create electricity! What type of energy is this? Does this energy enter bodies and leave it when the body deteriorates with time? Does this energy have memory and what kind of memory is it? I don't know answers to such questions." Grandma continued.

Present: Dominated by Science, Industrial Revolution and Business

"Scientific method is the most popular technique today to understand nature. In the beginning it was all about understanding nature through laws as much as possible. Bright minds got interested in such studies as it provided enough excitement in terms of simple looking results which could be verified to a large extent. A body moving at the velocity of light gets converted into energy is perhaps the best result which excites every mind even though we can't easily verify it.

As science research discovered many laws the business community saw a great opportunity to make more money by using such laws to build machines and other interesting products. This is quite natural as it resulted in jobs for millions and promised better living conditions which were not possible earlier. It also made some nations to feel superior and lead to wars. Today it appears to threaten our existence on Earth and nature definitely appears to have taken a back seat. More and more species are vanishing from Earth day by day.

Science still has more friends than enemies. However, just like the earlier approaches scientific approach also is getting misused more and more for various purposes. As a result there will be problems for science also. So what is the way out? Are there other approaches which can become popular?"

Future: An Era of hope for a better and balanced life for all creatures

"There are suggestions by wise people that scientific thinking should merge well with religion to make living better. Unfortunately, nobody knows how to bring two parties together to create a

better synergy. Of course society has been using both in the best possible ways for a better life. But more needs to be done. This is a challenge which I believe should be addressed in the future.

In the world of business this has happened in the last 100 years in a large scale. Many countries continuously find new ways to encourage, fund and support innovation for a better business on a continuous basis. This is not always an easy task. It requires right people acting as prime movers of change at the right times. Families, villages and states which do not have such people will either get ruled by others or degenerate and perish or wait for able leaders to be born. By hard work and imagination such leaders try to achieve economic freedom for all around them and create independent and powerful families or states. They also create an environment to nurture and train more such individuals.

As a result we have a totally business driven world today by using human intelligence. Thinking further, it is possible to create a better society and world by using human intelligence to think beyond business and normal science. When this activity generates enough results I am confident that there will be a revolution leading to a better social order.

Towards that end there is a great and immediate need to establish research centers for such studies which can help us understand our world in a better manner. Such centers should encourage bright minds to think beyond science and religion boundaries and discover methods to help us live a better life without violating natural laws of creation. Today we and all other living beings are just watching the way our world is being controlled by business driven objectives and feel helpless or plan to vanish. Nothing dramatic can happen soon to change all this. However, it is possible for us, humans, to become change agents by initiating necessary actions which can yield better results in the distant future."

"Suppose after all such studies we discover that there are no laws of creation. Anything we do is fine. Then what could happen?" Ahmed asked.

"It is difficult to believe that randomness is the fundamental law of our existence. Let us park your question and move on with the belief that there are a set of laws which govern our existence. I believe that once we have sufficient data there

will be a good set of laws. Once this is done, there will be a set of bright people who will come forward to set things right and create a new social order based on such understanding. This has happened in India during vedic period. Once there was enough knowledge available with rishis Veda Vyasa compiled all of it and established a new social order through Krishna and Mahabharat War. Similarly, we have Christ who established a new social order through Bible and Mohamed through Koran. We have Buddha who wanted a paradigm shift through his teachings and several other examples.”

“There may be a natural way by which this can happen. What I am suggesting to you is to accelerate that process by creating a platform where bright minds can do research and provide good answers to our questions which are currently ignored by the society for good or bad reasons. Purpose of such a platform is to research and discover essential laws which are to be considered for living a better life on Earth and make Earth a place where all creatures enjoy required levels of freedom as dictated by laws of Earth which govern natural harmony.”

“Suppose we discover very meaningful laws for humans to live a better life. But society does not care for such laws. Then what can happen?” John asked.

“In the worst case there may be a war with believers of the new system on one side and rest on the other side. If the new system is based on sound understanding, people on its side will win the war.” Grandma did not anticipate such a question from them.

“Who will drive such a movement?” Ahmed asked.

“The moment such study reaches a certain level of maturity with enough results there will be people like Veda Vyasa in India who wrote extensively to summarize the findings and made it popular in the society through stories and Geetha. Mahabharata war symbolizes that change point in the society. As we know Bible and Koran were also similar efforts by people who felt such needs in the best interests of the society.”

“So our immediate job is to create an environment or university where studies can go on without any constraints. Several places of such learning should be established. I am sure with years of such study by dedicated bright people there will be light and should lead to a better understanding of our role in nature and methods to preserve natural harmony and provide antidotes for at least some bad effects Science has created. Lot of damage control mechanisms

will be discovered.” Grandma’s face brightened up.

“What about money?” Ram asked.

“Once you are convinced of an idea and you have the urge to convince others money is not a problem. India could lead this effort. One simplest and very robust way to generate money is to write to each one of million or more engineers and scientists to contribute Rs. 100 for this purpose per year. You will get enough money. One needs to set up a good framework so that corruption and misuse is as less as possible. Since all humans are corrupt in one way or the other right from birth eliminating corruption which is a part of human nature will not be possible.

So we live with it and manage it.”

“Thanks for your thoughts Grandma and thanks for nice dosas. We will definitely do something about your thoughts when we grow up.” All four shouted at once. Grandma never felt so happy in her life. “God bless you all.” She said with lot of hope.