



Connecting Thinkers...

## Editors' Message

Dear Researchers,

Every once in a while there comes a moment in our journey of life, when, while treading unknown, uncharted paths we have to stop and ascertain whether we are going in the right direction (since we don't have Google Maps to help us always!!). This small pause plays the crucial role of confirming the path that we have taken. What also becomes important is to think of alternatives, if we get the feeling of being in the wrong path for reaching our destination. Paulo Coelho calls such people the 'Warriors of Light'. He mentions how they carefully study the position that they intend to conquer, and no matter how difficult the objective, they always find a way of overcoming obstacles. While seeking out alternative paths, they sharpen their swords and try to fill their heart with the necessary determination to face the challenge.

Waiting for the ideal moment will never allow us to set off. Since it is impossible to foresee everything, a touch of "madness" is required to take the next step. Here, if travel is understood metaphorically then it could mean anything which involves movement and the need to reach a specific destination. Research is also a journey. Just like everything else around us, knowledge, and the way it is understood, also keeps changing. Therefore, it becomes critical for us to keep reconsidering and reinforcing our thoughts and positions.

With great minds and thinkers who were invited to share the fund of knowledge and the experience that they have gathered over the years, it was a truly enriching experience to understand different aspects of our respective disciplines as well as an improved understanding of "interdisciplinary".

Hence, while retreat is commonly understood as withdrawing from a specific action/destination, we should take Research Retreat as the continuation of an important process to accumulate the knowledge imparted and if necessary, rethink the course of our journey so that we may proceed towards our research destinations, better equipped.

As a University, we are sensitive to the role that we play in the researchers' work. We are always conscious of the need to create an eco-system which aids the positive movement of research and researchers. The Research Retreat was conceptualised with this aim in mind. An opportunity for all of us to come together, think together, evaluate and help each other with positive reinforcements. Happy travelling!! Happy learning !! to you all.

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## GUIDE'S COLUMN

### Plastic Menace: Solid Waste Management is the Need of the Hour

As a sign of development and prosperity, 62 million tons of garbage is generated everyday by the 377 million people living in urban India, now the world's third-largest garbage generator. However, it's not the amount of waste generated that's as much of an issue as the fact that more than 45 million tons, or 3 million trucks worth, of garbage is untreated and disposed of by municipal authorities everyday in an unhygienic manner leading to health issues and environmental degradation. These 3 million trucks, if laid end to end, would cover half the distance between the earth and the moon. Or to put it another way, that's the distance you would cover if you made 15 trips between Mumbai and Los Angeles.

The improper collection and treatment of waste, leads to garbage being dumped on the streets; this indicates an inefficient system available to tackle waste management in urban areas. If this issue is not tackled competently and better policies and practices for waste management are not adopted, the total waste generation is projected to be 165 million tons by 2031 and 436 million tons by 2050.

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It is interesting to know that untapped waste has a potential to generate from 32,890 TPD of combustible waste, 439 MW of power which is enough to meet the power demand of a union territory like Pondicherry. This includes refuse-derived fuel (produced by shredding and dehydrating garbage) and 72 MW of electricity from bio-gas, as well as 5.4 million metric tonnes of compost annually that could support farming. Plastics, paper and glass constitute 17% of the recyclable waste and this is important because plastic waste, composed of high-calorific-value material, is a crucial fuel for solid waste-to-energy plants. Another alternative lies in the manufacture and use of green plastics: Bioplastics from renewable resources (agrowastes/ dairy wadtes) by bacteria for atleast single use items, which is one of the focus areas of research at the Center for Post Graduate Studies, Jain University.

The amount of waste that is generated, if collected and treated well, can be effectively used to generate energy. Globally, there are 2,200 waste-to-energy plants, of which European Union has 445, China has 150 and USA has 86 compared to just 8 in India.

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## Computerized Medical Imaging and Analysis for Detection of Abnormalities

In today's health care, computerized medical imaging plays an important role throughout the entire clinical process from diagnosis and treatment planning to surgical procedures and follow up studies. Medical imaging offers a precise representation of the internal anatomy of the organ inside the patient body without doing surgery. The medical imaging modalities vary from X-ray, Ultrasound, CT, MRI, SPECT and PET. The Magnetic Resonance Imaging (MRI) is one of the most suggested medical imaging techniques for examination of the brain, spinal cord, chest and abdomen. The MRI uses magnetic field and radio frequency waves to form the detailed images of the organ of interest and the surrounding tissues. However the technology of MRI is associated with many potential sources of image artifacts which can degrade the image quality and cause inaccurate diagnosis.

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The presence of artifacts in the scanned image may confuse the pathology or just reduce the quality of examination by the clinician or radiologist. Hence it is important for the radiologist to recognize the artifacts and have basic understanding of their origin, causes and to learn how to eliminate them. Some of the artifacts and their negative influence on MR images can be removed by the radiologists by adjusting the image acquisition parameters of the scanner. Some artifacts which obscure pathology and are out of radiologist's immediate control can be removed in technical ways using medical image processing techniques.

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## Soft Skills: The Hard Skills of Today's Workforce

Which dentist would one go to? The one who is pleasant and takes time to answer questions or the one who treats his patient like a number in a long line of numbered mouths? Which secretary is most preferred, the one whose attitude is positive, upbeat and who is always willing to help; or the one who is inflexible and has a hard time admitting mistakes? The answer is definitely the former. What is it that differentiates such an employee from the not preferred one? It is the soft skills. The one who has a great work ethic and encourages

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his colleagues is the one who will, most likely, excel in his position and organization. It is evident by now that it's the soft skills that matter. Soft skills are therefore becoming the hard skills of today's work force.

Technical skills provide more opportunities, however people skills are those which facilitate achievement. Work ethic, positive attitude, good communication skills, emotional intelligence and a whole host of other personal attributes are the soft skills that are decisive for career success. With these soft skills one can excel as a leader. Problem

solving, delegating, motivating, and team building are all much easier if you have good soft skills. Knowing how to get along with people – and displaying a positive attitude – is crucial for success.

The problem is, the importance of these soft skills is often undervalued, and there is far less training provided for them than hard skills. For some reason, organizations seem to expect people know how to behave on the job. They tend to assume that everyone knows and understands the importance of being on time, taking initiative, being friendly, and producing high quality work. To get and keep a job you typically need a repertoire of technical skills. Dentists need to know how to fill cavities. Secretaries need to type 100+ words per minute. Accountants need to be certified. There is no certificate course and exams passed to guarantee the possession of soft skills. It is an integral part of one's behavior and culture. It has to be cultivated and internalized over the years. Not everybody is initiated to this. Assuming that soft skills are universal leads to much frustration. That's why it's so important to focus as much on soft skills training and development as you do on traditional hard skills. It's important to recognize the vital role soft skills play within teams and not only work on developing them within individuals, but encourage their development throughout the organization.

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## Women of the Vedic Period

During Vedic era women were given a prominent role. They were respected a lot. They were actively participating in all the rituals. People of Vedic era always believed that *“A girl also should be brought up and educated with great effort and care”*. There was an era where they even performed the sacred thread ceremony or 'Upanayana' to women who were interested, which is only meant for males even to this day. There were many female scholars and sages like Vac, Gargi, Maitreyi, Lopamudra, Ghosha etc. in the Vedic era. There were two main classifications of women. They are 'Brahmavadinis' - Women who picked the path of vedic studies and 'Sadyovadhus' - Women who chose the married life and opted out of education. Schools/Gurukulas/Pathashalas in this era even had co-education system where teacher gave equal attention to people of both the gender. Women from the Kshatriya community even received martial arts courses and arms training. Rig Veda describes different types of marriages like monogamy, polygamy and polyandry. Women were given rights to choose their husbands and were always allowed to remarry if their husbands died or disappeared. We can find descriptions of eight types of marriage in vedic era out of which five were more prominent. They are 'Brahma' – Daughter was given as a gift to a good man who had vedic knowledge, 'Daiva' - Daughter was given as a gift to the presiding priest of a vedic sacrifice, 'Arsa' - Groom had to pay to get the lady, 'Prajapatya' - Father gave his daughter to a man who promised monogamy and faithfulness, 'Swayamvara' – Girls of royal family had the freedom to choose her husband from among the eligible bachelors invited to her house for the occasion. Among many societies that can be found in the world, we have seen that some of the most venerating regard for women has been given in Vedic culture. We have various examples of strong and influential women in Vedic culture, from the early Vedic times up to modern date. Women of Vedic era are always the best examples to demonstrate how women can proceed with their development inspirituality and reach a higher potential and provide their contributions to the society.

*Women were given rights to choose their husbands and were always allowed to remarry if their husbands died or disappeared.*

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## The Taste of Research: Part II

I was awarded the Erasmus Scholarship to study in Netherlands for six months at the University of Groningen. Though the interviews conducted during the study were mostly in Dutch, my guide at the University helped me not only in translating the interviews but also in making me understand the finer details of what was being said by the respondent. I was able to complete all interviews except one which got rescheduled due to the terrorist bombing at Brussels Airport. Since the Amsterdam Airport Schiphol officials were also a part of the rescue management team, I was asked to hold the interview at a later date. This makes me recall the conversation I had with one of the Professors in Netherlands where he said 'in today's world, safety is all about being lucky... and if one believes in God, it's in his hands'.

*“In today's world, safety is all about being lucky... and if one believes in God, it's in his hands”*

The major challenge for me, apart from getting adjusted to a new place, was the weather. Since I was in Netherlands from October to March, it was mostly winter season there. Biking or cycling which is a norm in a flat country like Netherlands, even when the temperature is -1 degree, along with heavy winds, was an unforgettable experience. However, my enthusiasm to cycle around did not last long when two of my colleagues got seriously injured by falling from their bikes, and had to undergo surgery. On the other hand, such weather was an advantage for undivided research focus since I could sit in the library for long hours (libraries were open from 8 a.m. till midnight). All I can say is that I have several memories, amidst wonderful experiences for a lifetime.

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## The Marginalized Literatures and their Assertions in Multilingual Societies

One of the most significant boons of Post-colonial and Post-modern discourse is giving voice to the marginalized. The term 'marginalized' can be looked at in two ways or contexts. During colonization and in the post-colonial era, on the one hand we have the literature created by the country in response to colonization and on the other we have the response of one section of society from within the country, which has been relegated to the margins due to the very structure of society. In both these situations we have one group exercising power over the other and another which is suppressed and overpowered / vanquished. Even in this unequal relationship language plays a key role in establishing a contact between the two sections.

*Power structures get created on the basis of the hegemony of the language of the powerful.* The one in power absorbs everything from the other group and gets enriched; at the same time not allowing the other to flourish or grow. In fact, the powerful group takes all the necessary steps to see to it that the 'other' is made to feel neglected despite its rich literature. If language is the vehicle for expression of culture then those also get affected in the circumstances. The combined appropriation of language and culture leads to a sense of loss of identity for the subjugated. It is for the same reason that we find a strong movement in favour of the status of minority discourses, tribal, aboriginal and Dalit literatures in the context of mainstream writings in multilingual and multicultural societies in India and elsewhere in the world, in contemporary times.

*The powerful group takes all the necessary steps to see to it that the 'other' is made to feel neglected despite its rich literature.*

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***“Nothing great was ever achieved without enthusiasm”***  
***- Emerson***



## Research Retreat May 2016

Knowledge stored has value in the future; however knowledge spread is worth in the present. Jain University organized a Research Retreat on the 21<sup>st</sup> and 22<sup>nd</sup> May 2016, where over 250 doctoral scholars participated and presented their research work. The Research Retreat was a congregation of more than 400 people including doctoral scholars, guides, faculty and special invitees, across knowledge domains. The Retreat began with an inaugural address by Dr. N. Sundararajan, Vice Chancellor, Jain University. The speech was extremely motivational and encouraging for everyone present, and had a message for all the scholars and guides to pursue more path-breaking research initiatives that could help in changing our society. This was followed by two plenary sessions which involved speakers of reputation engaging their audience with themes of relevance to the doctoral scholars.

The first plenary session was facilitated by Dr. G. Gopa Kumar, Vice Chancellor, Central University of Kerala, Kasargod on the theme '*The Blurring of Boundaries: The Focus on Inter-Disciplinary Research*' and was chaired by Dr. Choodamani Nandagopal, Dean, Humanities and Social Sciences, Jain University. Dr. Gopa Kumar talked about the importance of interdisciplinary research and illustrated with examples how this is becoming an integral part of academia. Following this, the second plenary session was by Dr. E.S. Dwarakadasa, CEO and MD, Karnataka Hybrid Micro Devices Ltd, Bengaluru, on the theme '*Pursuit of Research as a Passion*' and was chaired by Dr. Mithileshwar Jha, Pro-Vice Chancellor, Jain University. Quoting examples from his own life, Dr. Dwarakadasa's sessions was extremely engaging and passionately delivered. Both these sessions focused on the core of research and were relevant to all the scholars present at the Research Retreat. Subsequent to the plenary sessions, the scholars broke into several concurrent sessions of their knowledge domains during which they presented the progress of their research work in front of other scholars and a panel of experts from their

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respective panels. Through these presentations, a best paper for each knowledge domain was identified and acknowledged. Day one of research retreat concluded with a cultural program from the scholars of Music and Dance departments.

The second day of the research retreat began with faculty plenary sessions divided into the domains of Sciences, Engineering, Social Sciences, and Management which included discussions on various subject-specific themes from distinguished speakers including Dr. V. Nagaraja, President, JNCASR and Professor and Head of the Molecular Biology Department, Indian Institute of Science, Mr. T.D. Prakash, Founder and MD, ELOGIC Technologies, Dr. Sangeetha Menon, Professor, NIAS and Mr. S. Srinivasan, CEO, SNN Builders Pvt. Ltd.. Following the plenary session were seventeen simultaneous break-out sessions that the scholars were allowed to choose and attend. These sessions were conducted by the faculty of Jain University and included distinctive academic themes that allowed the scholars to break from their own research domain and move towards the understanding of happenings in other domains making the research retreat more interdisciplinary in nature. Dr. K.R.S. Murthy, Former Director IIM, Bengaluru facilitated the third plenary session following the break-out sessions on the theme '*Academia- Industry Interface*' and this session was chaired by Dr. Jayagopal Uchil, Director, Academics and Planning, Jain University. This session also proved to be important and applicable to the research scholars present during the discussion.

The two-day academic event came to a conclusion with a Valedictory session with Ms. Kiran Majumdar Shaw, Chairperson and Managing Director, Biocon Limited, as the speaker. The valedictory also involved presenting the best paper awards to all the winners from all the knowledge domains. Over all, this year's research retreat was interdisciplinary in its truest meaning by the crossing of scholars from varied domains of research and interchanging of ideas of value to everyone involved in research.



*Dr. K.R.S. Murthy entering the conference hall to make his plenary presentation*



*Ms. Kiran Majumdar Shaw handing the scholars the 'Best Paper Award'*

The two researchers at CERSSE, Ms Aparna Ramaswamy and Ms Perna Radhakrishna are joining the Under Graduate Department of Psychology of Jain University as Faculty Members from 1 June 2016. They will continue to be associated with the Thinklet Editorial Team. We wish them well in their future endeavours - Editors

## *Team Thinklet*

**Chief Editors:** Dr. Mythili Rao and Dr. Reetika Syal  
**Editorial Team:** Perna Radhakrishna and Aparna Ramaswamy

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