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The candidates should have M.Sc. or M.A. in any of the afore-said subjects with specialization in Jainology, and meet JVBI requirements for admission.

Deadline for applications is May 19, 2016, and the fellowship will be tenable from August 1, 2016.

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The candidates should have Ph.D. either in Science or Religious Studies or Philosophy with specialization in Jain Philosophy), and meet JVBI requirements for admission.

Deadline for applications is May 19, 2016, and the fellowship will be tenable from August 1, 2016.

### Senior Scholar Research Fellowship

Senior scientists, scholars and experts having long experience of research in the field of science, philosophy and religion, and are interested to contribute in the field of scientific study of Jain principles and practices are awarded Senior Scholar Research Fellowship.

For applying to pilot, minor or major research project in concerned areas.

Please! address questions to:  
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BMIRC News  
Vol 1 Issue 3 Oct 2015 - Mar 2016



## Bhagawan Mahavira International Research Center

for Scientific Research & Innovative Studies  
in Social Sciences

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Layout & Designing: echoraria@gmail.com

Dept. of Jainology and  
Comparative Religion  
& Philosophy

An exploration of the parallels between modern science and Jain philosophy for universal wellness



## SUMMARY REPORT ON INTERNATIONAL CONFERENCE ON SCIENCE AND JAIN PHILOSOPHY

**Venue:**  
**Indian Institute of Technology Bombay,  
Powai, Mumbai**  
**Dates: January 8-10, 2016**

**The International Conference on Science and Jain Philosophy was organized by Bhagawan Mahavira International Research Center (BMIRC) of Jain Vishva Bharati Institute, Ladnun, Rajasthan during Jan.8-10, 2016 at Indian Institute of Technology Bombay, Powai, Mumbai. A website was established for the conference to reach out to a large segment of people across the world ([www.icsjp.org](http://www.icsjp.org)).**

### THEME

The major objective of the Conference was focused to comprehend the Jain doctrines and practices in the light of modern scientific theories and laws and to utilize this comprehensive knowledge for the welfare of mankind.

### COLLABORATORS

- Indian Institute of Technology Bombay, Powai, Mumbai
- University of Mumbai, Mumbai
- K.J. Somaiya Center for Studies on Jainism, Mumbai

### KNOWLEDGE PARTNER

Centre for Philosophy and Foundation of Science, New Delhi, India

### MAJOR SCIENTIFIC PROGRAM

- The conference comprised of 9 scientific sessions spread in 3 days, namely, Science and Spirituality, Environment and Ecology, Laws of Nature and Karma Theory, Relativism and Jain Logic, Jain mathematics and its Importance, Soul and consciousness
- Each Session was planned with a Plenary Talk followed by Invited talks and a few short talks.
- There were organized 2 Panel Discussions chaired by a distinguished scientist/philosopher and panelists were drawn from science, philosophy and spirituality disciplines from institutions across the world.
- A Round Table session was organized with the theme Developing scientific cum spiritual techniques for inculcation of moral values and development of EQ in global education curriculum
- Young Researcher Session was organized to give an opportunity to young minds to articulate their thoughts and opinions on the theme of the conference
- Poster Session was organized for presentation of papers and interaction with peers and scientists/specialists
- Experimental Workshops were organized to deliberate on impact of life style interventions, preksha meditation and yoga in achieving holistic health

## BACKGROUND

The conference aimed to provide scope for research in science and Jain philosophy. To begin with, it was planned for about 500 participants. However, registration of interested participants crossed 650 sometimes in middle of December 2015 and registration had to be closed due to limitations of accommodation and auditorium space. To accommodate requests, parallel sessions were conducted.



It was heartening to note that halls were full to capacity and extra sitting arrangements were required to be made. A total of about 850 delegates attended. More than 20 scientists, philosophers and spiritual masters from about 17 countries delivered their talks in the conference. About 30 Vice Chancellors, Directors and other distinguished delegates from reputed Institutes and Universities of India delivered their talks. A few distinguished speakers could not travel to Mumbai and delivered their talks through video conferencing system.

## SETTING PERSPECTIVES (INAUGURAL SESSION)



The Inaugural session of ICSJP was started by Namaskar Mantra by Muni Mahendra Kumar ji followed by Mahavir Stuti and JVBI anthem song. Welcome address was given by Hon'ble Samani Charitra Prajna, Vice Chancellor of JVBI. She emphasized the importance of synthesizing science and spirituality for the improvement of quality of life of people. She hoped the conference would bring connectivity in mind, body, soul and consciousness. She stated the need for value education and sustainable development of the planet. Prof. D. Parthasarthy of IIT Bombay welcomed the delegates and appreciated the efforts of BMIRC to organize ICSJP. He stated the importance of Anekantvad of Jain philosophy. "IIT Bombay pursues teaching and research in many disciplines and, at the same



time, preserves nature, and diversity is respected at the campus", he said. Acharya Shree Mahashraman ji ( Rev Supreme Head of Shwetambar Terapanth Jain Sangh and Anusashtha, JVBI) addressed delegates through recorded message because he was traveling in the Eastern part of India as per his vihar program. He emphasized the importance of spirituality in the present world. He underscored the parallel between spirituality and science as they both aimed to discover truth. It is therefore highly appropriate and timely that BMIRC of JVBI has organized the international conference on science and Jain philosophy with an objective to provide a forum for creating better understanding between scientists and spiritual seers. He however pointed out the differences between scientific and spiritual approaches to realize the ultimate truth. He hoped that scientific research on Jain doctrines and practices would help better explain the fundamental principles and essence of the ahimsa and non-violence to modern world for establishing a compassionate and peaceful society. He felt happy that Muni Mahendra Kumar ji is in Mumbai guided and directed the ICSJP. He recalled that Muni Mahendra Kumar has a deep knowledge of science and Jain philosophy.

Dr. KP Mishra, Chairman and Director of the conference explained the purpose and significance of organizing ICSJP. He stated that goal of science and spirituality was



to discover truth, though methods of achieving the goal differed. Science endeavors to know what is unknown. However, science has yet not understood the origin and purpose of life and secrets of universe. Scientists are eager to learn from methods and approaches of spirituality to discover ultimate truth and hoped a synergy in creation of new knowledge by integration of science and spirituality. He particularly recalled the noble thoughts of Acharya Mahaprajna ji who advocated equivalence of souls promot-

ing universal friendship.

Muni Prof. Mahendra Kumar ji explained the purpose of organizing this conference to bring together scientists, philosophers and spiritual leaders to discuss and de-



bate the relevance of Jainism in modern world. Mahavir preached against violence and wished to establish a compassionate and loving society through doctrines of Jain philosophy. He exhorted the need of converting knowledge into wisdom for benefit of society and referred to the basics of philosophy of Anekantavad and wished to bring happiness in the life of people. He said that developing emotional quotient was fundamental to human progress. He recalled the message of Lord Mahavir for practicing non-violence and to build a peaceful world. Shri Rajiv Mehrotra of Foundation for Universal Responsibilities of

HH Dalai Lama said that The Dalai Lama admired the tenets of Jain philosophy and sought to spread love and compassion. He spoke about the relevance of science in religious philosophy.

The conference was inaugurated by Mr. Justice Dalveer Bhandari, a former Judge of Supreme Court of India and presently a Justice in the International Court of Jus-



tice, Hague, The Netherlands. In his inaugural address, he stated that entire world was sitting on the volcano of violence. There is a danger of nuclear war wiping out the entire humanity. In this context, Jain philosophy is highly relevant which is most ancient religious philosophy. He said, law of Jainism is logical and scientific. He pointed out that the theory of karma explained disparity in society and dispensation of justice. We are what we are because



of our genes, he said. Mahavira preached non-violence through series of discourses. He quoted Chinese philosopher, Confucius who said "reflection is noblest, imitation is easiest and experience is bitterest".



Hon'ble Dr. Harshvardhan ji, Minister for Science and Technology was the Chief Guest and Hon'ble Shri Shripad Naik, Minister of AYUSH and Health & Family Planning, Government of India was the Guest of Honor. Dr. Harshvardhan pointed out "Jain philosophy teaches us to become good human beings and advocates respect for all jivas". He recalled the glorious track record of ancient saints and seekers from India. Indian scientists are not inferior to any one, he asserted. The scriptures narrated supremacy of science to solve problems of the world. He recalled how in WHO conference on health policy in 2000 in Japan, it was concluded that Ayurvedic system of medicine and positive healing system and Patanjali yoga were relevant in 21st century. Total human genome has been sequenced and a whole lot of revolution is taking place in biological and medical science. Ancient scriptures describe that India possessed knowledge and wisdom. He praised the program of Jeevan Vigyan started by Acharya Mahaprajna ji and stressed that Jain philosophy had great potential to transform India. He felt the doctrine of Karma, love, peace and truth were the ultimate goal of mankind. He referred to the contributions of Sir JC Bose and Dr. CV Raman who did our country proud and wished that research in science and spirituality might fetch Nobel award in future. He wished knowledge to be converted into wisdom.

Prof. K.P. Mishra, Director and Chairman, ICSJP briefed about the scope and plans of conference. Shri B.R. Bhandari, Chancellor, JVBI presided over the function. He believed that theory of Karma was scientific. He reminded "as you sow, so shall you reap". He said "Jealousy leads to ulcer, anger leads to blood pressure and ambition leads to diabetes." He exhorted that empirical research by Acharya Tulsi, Acharya Mahaprajna ji and Acharya Mahashraman ji taught the non-violence and showed path to happy life. Industrialist Shri Vallabh Bhansali was felicitated. In his response he recalled the main goal of preaching's of Lord Mahavira to lead to happiness which could be achieved with right kind of conduct. He pointed out that science provided tools for comforts such as car, mobile, microphone etc. which are used by both monks and common people. He referred the statements by Editors of Lancet and New England Journal of Medicine who talked of limitations of modern science. He praised scientists as they changed their views when new facts became known. This, he called, the humility and honesty rather than miscon-

ceived imperfection. He hoped that the coming together of science and spirituality might bring new awareness and great knowledge for the benefit of mankind. Dr. Samani Chaitanya Prajna, Executive Director of BMIRC was also on the dais during these deliberations.

In continuation of the Inaugural session, the Convocation function was organized to confer the Hon. Degree of D.Litt. to Mr. Justice Dalveer Bhandari and to Shri Sugal Chand Jain. The citations were read by Dr. K.P. Mishra and the degree was conferred by Shri BR Bhandari, the Chancellor of JVBI. Conferment of degree was received by Shri Ramesh Damani on behalf of Mr. Sugal Chand Jain who could not be present. Later, a few distinguished persons and well wishers of ICSJP were felicitated as a mark of honor. Shri Bhandari thanked IIT Bombay for collaborating and providing facilities, audience for patient hearing of lectures and Press for carrying the message of the conference to far and wide and in multi-languages.

### LECTURE BY DR. JAGDISH SETH THROUGH VIDEO CONFERENCING



Professor Jagdish Sheth, a well known management expert and the Charles H. Kellstadt Professor of Marketing at Emory University's Goizueta Business School, USA sent out a strong message on the relevance of Jainism in today's world. In his talk, titled "Jainism - from a footnote to a religion of the future", he articulated how in today's world things are heading for convergence - from science to religion to business to environment. Jainism, he said, is the perfect religion suited for scientific research as it brings a convergence between mind, body and spirituality and covers multiple aspects of life. He summarized the core principles of Jainism into 6 things and then aligned them with the modern global issues in a very interesting way. From positioning Anekantvad (non-absolutism) - which is about pluralism and multiple perspectives - as the way to move today's discourse away from "either - or" to "and". To talking about how Ahimsa (non-violence) and Aparigraha (non-possession) can transform the whole development thinking to being environment friendly. He also exhorted Jains to focus on nurturing other human by giving away and to go down the path of enquiry and learning rather than just being a successful business community.

## SCIENTIFIC SESSIONS

### RELATIVISM AND JAIN LOGIC (SCIENTIFIC SESSION I)

Chairpersons were Prof. Kusum Jain (Rajasthan University, Jaipur, India) and Prof. N.L. Kachhara (Ex MNNIT, Allahabad). Prof. Jeffery Long (Elizabeth College, Pennsylvania, USA) delivered the plenary talk and spoke in favor of rebirth and gave example of Ryan of Oklahoma in support of his logic.



He said that belief of reincarnation was rejected in western culture and therefore, children recalling their past could not be taken as reflection of rebirth. He raised the possibility of consciousness independent of brain which science did not favor. He outlined the similarity between quantum concept of relativity and philosophy of Jainism as Anekantvad which proposed that no single view described reality. Science has acceptability in view of the power of technology and explanations of natural phenomenon. Therefore, need for fusion of science and spirituality was emphasized which might answer hitherto unexplained questions.

Dr. Narendra Bhandari (PRL, Ahmedabad, India) raised the question: "what is truth and can we know it?" He



brought out areas of similarities between science and Jain philosophy. He explained that science endeavored to understand known and unknown. What is unknown today may become known tomorrow on the basis of new discoveries. On the other hand, Jain philosophy identifies known, unknown and unknowable. The sensory organs and mind are incapable of understanding unknowable completely and correctly. He emphasized the similarities between syadvad and anekantvad with concepts in physics like complementarity, quantum principle, duality, logic and probability. Because of limitations of sensory knowledge,

truth is not within the reach of our understanding, he admitted.

Dr. Pankaj Seth (Science of Divine Living, Mumbai) contradicted that logic was binary. He described Lord Mahavira as complete scientific environmentalist. He talked of



preaching of Mahavira which directed to life of peace and happiness. With the scientific developments we are faced with corruption in society and pollution in environment. He described the 5 internal and 5 external consciousnesses and emphasized that lord Mahavira's teachings are scientific and logic based. The Session was concluded by agreeing that Karma theory was not recognized by science (J. Long) and science seems to have limitations to understand total knowledge (Keval Gyan). Religious fundamentalism leads to terrorism (Dr. Doshi). Jainism seems to have pondered over these issues and it was felt necessary to identify areas where science and Jain philosophy differed in their perspectives.

### SOUL AND CONSCIOUSNESS (Scientific Session II)

The session was chaired by Muni Mahendra Kumar ji. Prof. Dr. Sir Roger Penrose (UK) delivered his talk over video conference. He described the developing concepts about universe. He talked of Big Bang theory in terms of theory of relativity of Einstein ( $E=MC^2$ ) and quantum law of Plank ( $E = h\nu$ ) which showed connection between



mass and frequency. He described formation of universe beginning with Big Bang and talked of stretching (beginning) and contracting (at the end) concepts. He predicted a model of cyclic universe which followed 2nd law of thermodynamics. He described the concept of increase in entropy of universe as a function of time and clustering of entropy in the form of dark energy described by Prof. Stephen Hawking. He emphasized that this model of uni-

verse agreed well with the laws of physics. It was noted with keen interest that the concept of cosmos described by Prof. Penrose found parallel with the concept of eternal universe propounded in Jain philosophy.

Dr. Parasmal Agarwal (Ex Oklahoma State University, Oklahoma, USA) stated "science is wonderful but it does not promote peace for which spirituality is required". He gave examples of over two dozen Nobel Laureates who



talked of something beyond material things. He quoted George Wald, Nobel Laureate who talked about eternal nature of soul, similar to belief of Jain seekers- the *atma* is *ajar amar*. He referred to the current progress of robotic technology which would work as domestic servant. Japanese scientists have developed robots with element of emotions. He identified several areas which must be taken up for research at BMIRC. He suggested that workers in departmental stores who have courteous behavior would be happier and more prosperous in business. He agrees that science has not confirmed soul but has not denied it either. He substantiated his viewpoints with the help of Sanskrit shlokas and writings of Muni Mahendra Kumar ji and emphasized the importance of *Bhed Vigyan* practiced in Jain traditions for gaining complete knowledge.

Prof. Rudi Jansma (Theosophical Study Center, Rotterdam, Netherlands) described the concept of soul in Jain metaphysics and that of consciousness in modern science.



He argued that soul could not be realized due to limitations of human sense organs. He pointed out that much of the universe was non-physical and remained to be explored. Modern science has found that most of the space is filled with the dark energy and matter which is presently a matter of further investigation. He concluded that Jain spiritual approach to cosmos might lead the way for scientific exploration in future bringing new insights of

understanding useful for development of humanity.

Dr. Dharam Chand Jain (J.N. Vyas University, Jodhpur, India) explained the concept of consciousness on the basis of Jain canonical literature and suggested consciousness reflected cognitive and sensitive attributes of soul. Consciousness is reflected in attitude and conduct of living beings and is related to happiness and sorrow. He said that consciousness was experienced through soul in the body in the form of *pranas* of 10 types, including 5 sense organs. When a soul departs from a body it becomes devoid of consciousness and body is rendered dead. Science has yet not been able to explain the true nature of consciousness but it is beginning to learn the connections of brain, neurons and genes.

Muni Dr. Abhijit Kumar (JVBI, India) presented his views on celestial and extraterrestrial beings as described in



Jainism. He wondered if the aliens might be made of protean matter and may have ability for supernatural capability including transformation of their body, perhaps, at will. It is possible that they travel through space vehicle with the speed of light and possess attributes unknown to us today. Muni Prof. Mahendra Kumar summed up the session by highlighting the thoughts expressed by Prof. Penrose, and Prof. Jansma on the origin and model of cosmos which had some similarity with the description of cosmos described by Jain saints and seers.

### SCIENCE, SOCIETY AND ETHICS (Scientific Session IV)

Dr. Bipin Doshi (Mumbai, India) chaired the Session. Muni Nandighoshuri (RISSIOS, Mumbai) explained the



biological aspects of Jain food. He explained "Jains do not

take foods such as potato, garlic, ginger as they have many bacteria and therefore these foods are *abhaksya*." Results from microscopic examination suggest that these foods are full of bacteria. The foods which do not have microorganisms are said to be *bhaksya*. His experiments showed that *panipoori* has many microorganisms and therefore Jains considered it *abhaksya*. Turmeric however is devoid of microorganisms and is a useful ingredient of Jain food.

Prof. Robert Zydenbos (Munich University, Germany) gave a talk on perception of Indian and Jain thoughts in the



western world. He said that philosophy of cotemporary science is rooted in western countries and is known as positivism. The scientific mindset suspects religious beliefs of east which talks of introspection and self. Science is based on data and its interpretation. Jain philosophy is not science but is quasi scientific in his view. The principles of Jain philosophy are unknown to western world who knows better about OSHO. Western world sees Jain as superstitious because of extreme ascetic traditions. On the other hand, Buddhism is better known to western world because it permits scrutiny of its beliefs. If Jain philosophy is to offer alternative intellectual opinion, then thought of non-violence and *ahimsa* should be made more aware to western world. The attitudes can change if true essentials of Jain thoughts can be shown to be of universal relevance. Jain thoughts have potential to enrich the current models of scientific mindset.

Dr. Viney Jain (International School of Jain Studies, New Delhi, India) in his talk brought out the importance of forgiveness in the present day scenario. He described that *Ahimsa* could be enhanced if we reduced aggressiveness. *Preksha* Medication could rescue the situation and he de-



scribed results of his research in this area. He advocated the virtue of apology and suggested *bhed gyan* which dis-

tinguishes between inner and outer knowledge. He suggested that the capacity to forgive seemed essential for personal development, social harmony and peace in society. He mentioned that spiritual practice of *kayotsarga* meditation helped in forgiveness by reducing attachment to the body. He emphasized the importance of supreme forgiveness which is characterized by non-conditionality and unilaterality. Further research is evidently needed to conduct and validate the psycho-biological studies to support Jain practices.

Dr Sudhir Shah (Yale University, USA) discussed the multiple aspects of conflict resolution and usefulness of *Ane-*



*kantavad* in resolving the conflicts. Listen without judgment, create mutual respect and use applied *Anekantavad*, he suggested. He described non-violent nature of communication and quoted Mahatma Gandhi- "I just do not want people to tolerate others but understand and respect each other". Mr. Justice K.K. Tater (High Court of Bombay, India) mentioned the scientific basis of *bhaksya* and *abhaksya* food as described in Jain philosophy. He pointed out the usefulness of *Anekantavad* in our day to day life. He said drinking boiled water seems to have scientific rationale. The Jain practice of eating food 4-5 hr prior to sleep has scientific support of optimizing digestion. The session was concluded by endorsing the basis of science in Jain practices and traditions.

### LAWS OF NATURE AND KARMA THEORY (Scientific Session V)

The session was chaired by Prof. Rudi Jansma (Rotter-



dam, the Netherlands) and Co-chairman was Muni Dr. Abhijit Kumar (JVBI, India). Muni Prof. Mahendra Kumar elaborated the connection between karma and neurosci-

ence. He said in Jain philosophy karma was considered as pudgala. He reminded the statement of Prof. Roger Penrose which was similar to Jain thought of beginningless and endless cyclic cosmos. He pointed out that neuroscience had mapped the various centers in the brain which is responsible and controls the behavioral and emotional aspects of humans. As individual soul becomes free of karma, the change in behavior will follow which will reflect in social order removing injustice and inequality. He said Jainism explains many of the observations on the basis of Anekantavad. He urged that vast research potential exists to verify experimentally if aggression and violence instincts could be changed by spiritual meditation practices. He pointed out that the conference delegates were from multi-disciplines and it brings an opportunity to plan research on karma and its relation to neuro-responses.

Prof. Subhash Jain (Iowa University, USA) stated "karma doctrine is universal". He presented a mathematical model of karmic load. He predicts that depending on the karma load, birth of living being with variable sense organs takes place. He said moha could be changed by yoga practice and this way karma load could be changed. Prof. Sohan Lal Tater (Ex Singhania University, India) explained that Jain philosophy found support from self-interaction of karma and genes. He concluded that genetics of cells in the body was governed by Karma. Prof. Rajni Patel (Pennsylvania, USA) discussed the biological laws of nature and karma. He recalled that Lord Mahavira taught benefits of positivity in every situation. He described the science of bhava and favored not to change bhava by force but by better understanding. Prof. Pravin Bhai Shah spoke on biological law of nature and karma wherein he compared law of karma with law of gravity which is universal. In conclusion the chair remarked that "laws of karma as understood in Jain philosophy are more universal than law of gravity".

### ENVIRONMENT AND ECOLOGY (Scientific Session VI)



The session was chaired by Prof. Luitgard Soni (University, Marbud, Germany) and Co-chaired by Dr. Prabhu Narayan. Prof. K. Akasaka (Kyoto Prefecture University, Japan) started off his talk from simple molecules to complex structures of proteins and DNA which are central functional macromolecules for sustaining life. However, there are some continuing puzzles in science like origin of universe. He said that science studies outside material world while spirituality focuses on inner understanding.

Life is dynamic because of dynamics of molecules. It is amazing that molecules are common and uniting connections in diverse species on the planet earth. Thus, he drew parallel in spiritual goal and scientific role of uniting humanity.

Prof. Kim Skoog (University of Guam, USA) emphasized that Jainism endeavored personal transformation through yoga and medication. He talked of Jain principle of ahimsa as the basis for creating a universal ethic for environ-



ment. The doctrine of Ahimsa is a way of life and provides directive to respect and preserve all jivas and ajivas, he asserted. Moreover, the doctrine of anekantavad, which means multi-perspectivism, has directive for self-preservation and eco-centric approach. He further suggested that non-violence principle of Jainism had implicit concern for the environment.



Dr. Kokila Shah (Somaiya College, Mumbai) dealt with relationship between man and environment. Principles of Jain span non-violence and self-restraint and imply protection of the whole universe. Jainism visualizes life in all species which is supported by scientific experiments. Undoubtedly, Jain code of conduct is highly ecology-centered. Dr. Subhash Theto (Buddhist Monk) described the concerns of Buddhism and Jainism to preserve environment and promote ecology by following Shraman traditions. He cited several examples to support his viewpoint.

### SCIENCE AND SPIRITUALITY (Scientific Session VII)

This session was chaired by Prof. K. Akasaka (Kyoto Prefecture University, Japan) and co-chaired by Dr. Anupam Jain (Indore, India). Dr. Ashok Panagaria (Jaipur,

India) gave an account of different evolutionary stages of brain. He said that brain can be remodeled and thereby change its function. He argued that change in mind can change the life. He pointed out that in brain there was a



region which was responsible for inclination to spirituality. Brain's stress response can generate pathology and eventually diseases. On the other hand, relaxation response can enhance pleasure and happiness, which, with the help of spirituality and meditation, can lead to bliss. Length of telomeres is a biomarker of age and longevity. It is possible to remodel the function of brain to achieve happiness, health and longevity. Thus neurologists can bring about what can be called brain revolution.

Dr. Sudhir Shah (BARC, Mumbai) discussed various concepts of quantum physics in relation with anekantavad. He described the basic ideas of linear and circular nature of light. Universe is finite and cyclic in nature with



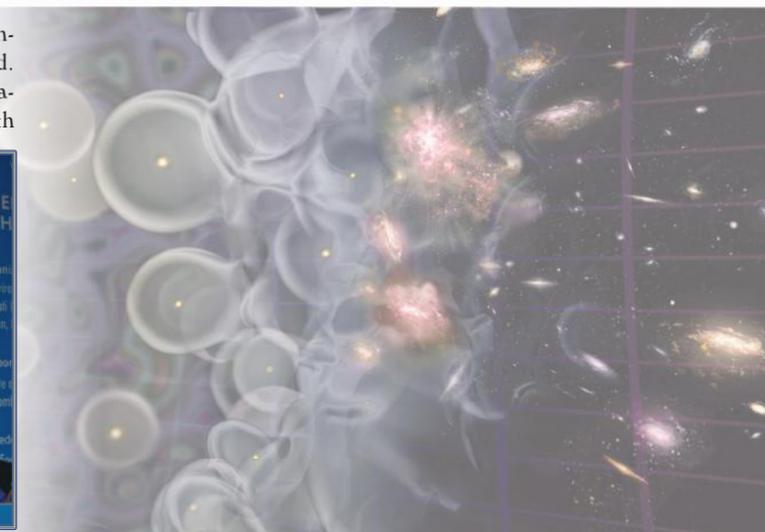
respect to time but it is not contradictory to science. He concluded that principles of Jain philosophy were in harmony with modern sciences. Dr. Krishnaswami Natesan (CIEFL, Hyderabad) recalled that ancient eastern science was far more advanced and he gave examples of discovery of zero and decimal system which originated from soil of India. Dr Anand Vaidya (San Jose State University, USA) explained the relevance of Anekantvad of Jain philosophy in critical thinking of cross cultural societies of the world. He brought out the distinction between logic as science of inference and logic concerning ontological and epistemological description of reality. He underlines the relevance of Anekantvad, which states knowledge as incomplete and subjective, in developing critical thinking among learners in the world.

### JAIN MATHEMATICS AND ITS IMPORTANCE (Scientific Session VIII)

The session on Jain mathematics was actively participated. Dr. Ratna Kumar Shah (Ex LIC of India, Pune) gave a concept of Jain mathematics in the context of modern mathematics. Prof. Anupam Jain (Indore, India) gave an account of mathematical research in Jain philosophy. Dr. Samani Vinay Pragya (JVBI, India) discussed about mathematical ideas in Pannavana. Dr. Rakesh C. Mishra (United College, UP Technical University, Allahabad) gave an account of mathematical analysis of dynamics of toxic gases in environment. Dr. Dipak Jadav (Barwani, India) discussed in detail the Jain school of Indian mathematics. Speakers brought out that Jain mathematics was quite advanced to describe karmic theory in ancient times and Aryabhat, a genius in mathematics, was said to belong to Jain community.

### MICROCOSMOLOGY, PARMANU AND ATOM (Scientific Session IX)

The session was chaired by Dr. Narendra Bhandari (PRL,



Ahmedabad). Dr. N.L. Kachhara gave an account of Jain concept of matter (pudgala). He pointed out that many concepts of Jain philosophy were yet unexplained by science. The concept of samaya and motion of subtle matter and jiva defined in Jain philosophy are yet not known to science. He said that an object can travel with speed greater than the speed of light as it is conceptualized in Jain philosophy, which, however, is not supported by Einstein's theory of relativity.

Dr. Sisir Roy (JIAS, Bangalore) gave the concept of quantum entanglement which gives instantaneous correlation of two electrons or atomic particles at infinite distances. He talked about philosophy of relationship. He also referred to EPR paradox and wondered if yogis could have power to travel from planet to planet and cited the experiment of quantum tele-transportation. He drew parallel between Pauli Exclusion Principle and Jain philosophy of

relationship. Dr. Deo Kumar (FDA, New Delhi) gave an account of Jain metaphysics and modern physics. He drew parallel between Jain view of fundamental particles and modern particle physics. He mentioned "scientists have discovered 61 atomic particles whereas Jain philosophy predicts more than 200 particles. Science has yet to discover many subatomic particles. He advocates that science of odour and taste has to be developed by science about which Jain philosophy has considerable knowledge.

Dr. Veer Bala Chhajed talked about non-physical order of existence. She pointed out that "soul is a bundle of infinite knowledge". Soul and Knower are one. She believed in rebirth and said that scientists have begun believing in rebirth. She suggested that peace and happiness could be achieved by knowledge of soul. Dr. Bipin Doshi gave an account of Jain literature on human health. He pointed out evidences that causes of diseases were consequence of past karma. Agamic references on medical science have provided elaborate account of this.

### JAIN CULTURE, LITERATURE & SCIENCE

The session was chaired by Prof. Mrs Shubhada Joshi (Mumbai University, India). Prof. Luitgard Soni (University of Marburg, Germany) sought to connect Jain view of the body, soul and load of karma. She talked of discipline required for undergoing the exemplary death jains by renouncing food and water. She explained that Santhara was an active and conscious way of dying. Prof. M.P. Tiwari (Allahabad University, India) explains that Jain religion believes Santhara or Sallekhana as a mean to attain moksha. He delineated the legal aspects of santhara as interpreted by High Courts and the Apex Court for the validity or otherwise of santhara practice. In his opinion, practice of Jain religion is protected by article 25 of the Constitution of India which allows freedom of conscience and practice and propagation of religion.



Dr Mrs Raksha Shah (University of Mumbai, India) explains that Sallekhana is a peaceful, non-violent and eco-friendly way of welcoming death as practiced by jains and it is neither was neither suicide or euthanasia. Prof. Mahendra Kumar Bhandari (Jai Narayan Vyas University, Jodhpur, India) elaborated the dynamics and objective of adopting the path of santhara and said "santhara represents highest form of renunciation or aparigraha." He described it unfair to limit santhara to Jain religion

only. In his view, any person who has exalted position in life and wishes to liberate the soul from body can adopt the non-violent and peaceful route of santhara. Dr. Bipin Doshi (University of Mumbai, India) urged that spirituality should be integrated into health care system. He says Jainism is a way of life to achieve happiness. He described several Jain canonical literature related to health care and pointed out that Jain practices had preventive and therapeutic effects on health. Dr Samani Him Pragya, the Associate Professor of JVBI, spoke on the process of birth based on Jain original texts. According to her talk, there is existence of well designed body unlike to evolved living species from bacteria to man as envisioned by Darwin. Dr Subhash Chandra (Intellectual Open University, The Netherlands) described that 20th century was the most violent in human history. In 21st century, society is standing at the cross roads of transition process. He suggested that Gandhian principle of satyagraha and ahimsa (non-violence) can help develop non-violent world order in the era of globalization.

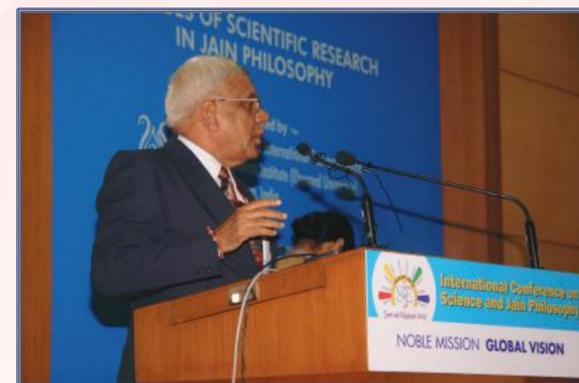
### OTHER SESSIONS

#### INTERNATIONAL AND NATIONAL COLLABORATION FOR INTEGRATING JAINISM AND SCIENCE (Panel Discussion 1)

The panel discussion was chaired by Prof. Samani Charitra Prajna, Vice Chancellor of JVBI and co-chaired by Prof. K.P. Mishra, former Vice Chancellor of Nehru Gram Bharti University and Chairman & Director of ICSJP. Prof. Mishra provided a background and expectations/framework of the panel discussion. He hoped discussions



would identify possible research areas in science and spirituality especially taking into accounts the Jain traditions and practices. The problem of research and collaborations have to be considered in the light of need to develop science based research projects related to Jain philosophy. Research has to substantiate the beliefs and practices of spirituality. It is to be examined how spirituality should bring out technology to improve life of people. He liked to imagine that "what is invisible today may be imaged in future". We need entirely new tools and new education system to create new knowledge. He advised to invest in developing some futuristic research which may or may not find use in contemporary period. He referred about tele-transportation experiment which may turn into technology to allow faster travel to other planets.



Shri Om Prakash Dubey (Ex Director, World Bank) argued that science and spirituality were complementary. He justified and lauded the thoughts of Lord Mahavira "live and let live." He advocated that human happiness could be enhanced by inculcating scientific reasoning and spiritual experience.

Dr. Akhsai Aggarwal, (Vice Chancellor, GTU, Ahmedabad) delivered his talk on Skype. He saw perfect justification of organizing International Conference on science and spirituality in modern time. He pointed out that western scientists did not give due regard to Indian religions. West knows little about Jainism but knows adequately about

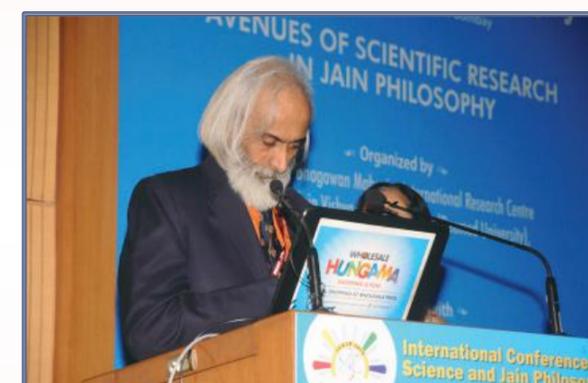


Buddhism propagated not from India but from China and Japan. Generally, in west, most of our beliefs are taken as unscientific. In fact, Indian religion is considered backward. However, there are scientific principles in our religions. He asserted that Jain philosophy is scientific but it is not represented appropriately to western world. We have to have belief in our religion and study our traditions by scientific methods. He lamented that Jain chairs abroad are not taken seriously by those who occupy them. The need is to feel proud of our religion and allow open and close scrutiny by criteria of rationality. We have to empower our researchers and professors who can speak or write about our religion on equal basis to western media and talk to western scientists on equal level. He desired if more Chairs for studies on Jain philosophy should be established within the country.

Prof. PR Bhat (IIT Bombay) stated that philosophy of science in the west seemed confused. He urged to discover eternal truth. Anekantavada has definite clues to find absolute truth. It is advisable to combine virtues of Jain prac



tices with philosophy of science. Dr. Sudhir Jain (BARC, Mumbai) emphasized to harmonize knowledge. He suggested taking clues from ascetic life styles of monks for scientific research. Unfortunately, science is not integrated with life of people. He talked of quantum entanglement and hypothesized for the entanglement of humans. There is need to understand the physical basis of intuition, which is related to evolution of consciousness. It is worth learning the art of resource management as emphasized in Jain philosophy.



Dr. Ranjit Nair (Center for Philosophy and Foundation of Science, New Delhi) spoke about the need for world peace. He suggested that philosophy of science and concepts of spirituality have to be integrated to advance our understanding for ultimate truth. Reality is far from our understanding in terms of sense organs. Philosophy of thinking for practical living of humans is essential for social development.

Many participants from the audience suggested that there should be established an institute devoted to science and spirituality. Research results should be published in western press as well as in our own publications. It would be appropriate to start an international journal for publication of research. It is a curious fact that Jain population is gradually decreasing which should be taken up for research. Taking clue from Jain practices, research should be conducted on resource management in terms of conservation of water and on issues of environment preservation. Research projects should be taken up to study life style of monks and seers in relation to implications on health. Concluding the session, Samani Charitra Prajna exhorted that scientists and philosophers and spiritual practitioners to come together and understand human problems and solve these problems by scientific and spiritual approach.

es. It is a positive step forward to sit together and learn from each discipline. She urged that youth should be involved in teaching and learning process. It looks promising to conduct research if practice of prekhsha dhyam could help produce good human beings.

### THE PANEL DISCUSSION ON RESEARCH PROBLEMS AND ACADEMIC CURRICULUM IN SCIENCE AND JAIN PHILOSOPHY (Panel Discussion 2)

Dr. K.P. Mishra invited guest-panelists to the dais and gave a background and framework of the panel discussion. The panel was chaired by Prof. N.L. Kachhara who articulated the basic idea behind organizing this panel discussion. He stressed the need and justification of education and research program in Jain philosophy. He said "Jains are more involved in business and neglect religious teaching and research. He, however, expressed satisfaction that awareness is increasing and curiosity of common Jain community to know the deeper aspects of Jain philosophy is found increasing. Prof. Kachhara identified four issues for the scope of discussion which included teaching science and technology students the basic principles of Jain philosophy, to develop post graduate courses, identify scientific research problems in Jain philosophy and develop online courses for Indian and overseas students.

Prof. A.D. Sawant (Former Vice Chancellor, Rajasthan University, Jaipur) confessed that there was inadequacy of good syllabi and curricula in university education. He stated "knowledge comes from learning and wisdom comes from awakening" He observed that in IIT Bombay students are taught apart from technology, the science of philosophy and history of science. By example of defects in crystals he talked of disturbed minds which need to be converted into better humans.



Prof. Shriram Murthy (Dayalbagh, Agra) lamented that there was steep decline in morality in society. He pointed out that there was increasing lack of cohesiveness in humans. There is a need to discover inner eye. He informed that at Conscious Research Centre of DEI effects of consciousness are being measured. He advised that brain-mind interface research is needed. In fact, a paradigm shift is required to conduct research on consciousness. Science has remained silent on ultimate truth and research should be undertaken in that area.



Dr. Samani Aagam Pragma (JVBI, India) identified several avenues of research in Jain philosophy. She quoted Acharya Mahaprajna who used to say that science has given credibility to ancient philosophy. She pointed out that dark matter which is insufficiently known in science was mentioned in Bhagwati Sutra and therefore, she suggested science could find clues from Jain literature for conducting research. In addition, she suggested research programs on Jainism in biology and psychology fields. She suggested research on mind reading (telepathy) and extrasensory perception capability of humans. Influence of fasting on health needs to be investigated.

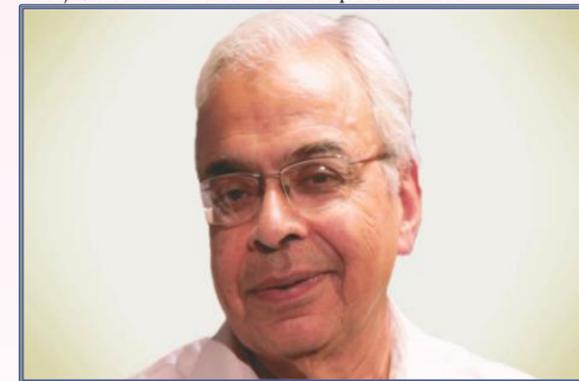
Shri Vidyhar Danavade (Sangli, India) raised several questions on cosmology that should become topic of research. For Example, he wanted to know where is Siddha Shila? Why can we not locate it? He wondered where Meru is and whether planets revolve around it. He feels a group of scientists should thoroughly plan to conduct research on these problems.

An active participation of floor took place. Many ideas for research were put forward. It was feared that PG and Ph.D. degrees in Jainology do not find job prospects in market. A suggestion was made that together with Jainism, studies on Buddhism and Vedanta should be included. Prof. Kachhara in his concluding remarks said that Jain education should be imparted to science students for grasping the basic elements of Jain philosophy. He said students of Jain philosophy do not know science and students of science do not know basics of Jain philosophy. This situation creates a barrier of knowledge and therefore Jain education has to be reorganized. He pointed out that research needed human resource and funds but Jain community generally remained indifferent to invest in research endeavors. Dr. Samani Chaitanya Prajna (BMIRC, India) appreciated active participation and constructive suggestions for future research at BMIRC.

### DEVELOPING SCIENTIFIC CUM SPIRITUAL TECHNIQUE FOR INCULCATION OF MORAL VALUES AND DEVELOPMENT OF EMOTIONAL QUOTIENT (EQ) IN GLOBAL EDUCATION (Round Table discussion)

The discussion group was chaired by Prof. Naresh Chandra, (former Pro Vice Chancellor, Mumbai University). It was stated that Preksha dhyam had power to reverse

cardiac conditions. Dr. SC Manchanda (Cardiologist, AIIMS) believed that solutions to problems of mankind lies



in coming together of science and spirituality. He talked of importance of moral values in life. He emphasized that EQ was more important than IQ in transforming humans. He expressed his satisfaction that International yoga day has been declared in 2015. He stressed that education should aim to produce good human beings. Dr. Harshad Thakur (TISS, Mumbai) advocated the basic health services to all irrespective of social and financial status. He suggested the important role of education in programs of prevention and treatment of diseases. Prof. Mrs Rupa Shah (former VC, SNDT University) said Jainism is a way of life. Jainism has role and relevance in the entire globe. We have to spread message of Jainism, the principle of self denial is a very powerful thought which is unique and unparalleled. Shri MP Lele (former DG, Doordarshan) narrated his experience of prekhsha dhyam practiced in government departments and in schools. He quoted Acharya Mahaprajna who advocated "making of jan and not Jains". Mrs Jyotika Mehta gave an account of her experience of effective change among children of 14-18 in her NGO by prekhsha dhyam and found tangible change among attitudes of children. Amazing transformation in children was noted. She described prekhsha dhyam as powerful tool for human transformation.

Muni Mahendra Kumar told "problems of world are due to emotional disorder". To solve the problem of world, it is necessary to use science and spirituality. Violence and terrorism can be solved by managing EQ. He lamented that more than 90% families were suffering from domestic violence. He quoted the teachings of Lord Mahavira who stressed renunciation. He felt the problems in Syria, USA, India are due to prevalent emotional disorder. He reminded that we are in 21st century which is craving to break inter- planetary boundaries. He advised conducting scientific experiments to provide quantitative measurements of effects of Jain practices. He stressed that not only education but training had to be given meticulously to youths. By providing training to brain, it is possible to change human mind. He hinted that environmental and ecological problems had arisen because of our asanyam. Jainism preaches self-denial. He concluded by urging that BMIRC and IIT should formulate research problems to substantiate claims of Jain practices. Scientific methods and techniques have to be employed to conduct research and produce measurable outcome to convince people. He referred the slogan of wisdom world in the last phase of life of Acharya Tulsi. We have to make world full of wisdom. Science and spirituality are secular and aspire for

the welfare of the whole world.

Dr. KP Mishra (BARC, Mumbai) put emphasis that we need to focus on what is to be discovered. He speculated by giving example that what is invisible today will perhaps become visible by the tools and methods of science. Scientists are eager to learn the secrets of spirituality. Presently, there is a gap of knowledge which needs to be bridged. He hoped if practitioners of spirituality would come forward to guide scientists to discover what is unknown and enigmatic today. He agreed with Muni Mahendra Kumar that emotional quality has to be carefully managed for human development. We are trying to infuse emotions in computers. For example, robots have been developed where limited feelings can be expressed. It is hoped that future development will bring complete revolution in robotics.

Question answer sessions were actively participated by audience. Dr. Patel gave his experience of increasing number of abortions in populations especially among young children. This needs to be tackled urgently and effectively. Dr. N. Chandra concluded the session by making a few observations. He suggested that conflict management had to be tackled. He suggested that research project had to be taken up to transform people's nobility. He stressed that, through right education, good human beings have to be nourished. He reminded that saints had cautioned "confirm and then believe" and we should follow this principle. He gave the message of need to conserve nature. Child is purest soul. We cannot have peace until we have sense of 'I' and 'my' in our daily life routine.

### YOUNG SCHOLAR SESSION AND POSTER SESSION

Young scholar session was a huge attraction where young scholars in Jainism and science presented their views and papers. From the beginning, the conference had planned for young scholar session to provide them a forum for free discussions and exchange of views. It was noted that youths were curious and eager to know more about scientific basis of Jain philosophy and doctrines. There were several interesting papers and demonstrations on life style practices and their impact on holistic health. Youths discussed freely and candidly the finer questions of ahimsa, Anekantavad, Preksha Meditation in keeping with the increasing





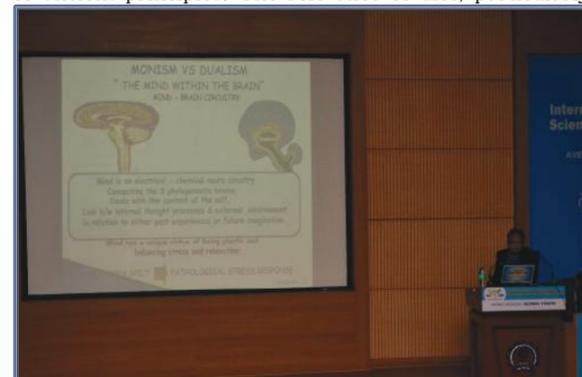
reliance on rationality and logic outcomes inculcated by modern science. Biological aspects of consciousness and soul appeared to draw attention of many young scholars. Topics such as life styles, Preksha Meditation, ahimsa and relevance of Jain philosophy in modern science for world peace were discussed. Time constraint of presenters was a common concern which was acceptable due to more than expected general registrations. It was a consensus opinion that conferences and symposia should be organized with larger participation of youths who held the flag for future of society. Awards were given as a mark of recognition of talent to young research scholars based on originality and novelty.

Opportunity was provided to young as well as senior researchers to present poster papers who could not be accommodated for oral presentation. The posters invited considerable attention of delegates.

### EXPERIMENTAL WORKSHOP- 1

The experimental workshop was moderated by Dr. Pratap Sanchetee, Sanchetee Neurology Research Institute, Jodhpur. He presented his talk on anatomy, physiology and evolution of nervous system including the brain. He stressed on triune theory, prefrontal cortex, limbic system, existence and requirement of two halves of brain, and autonomic nervous system. He talked about types of meditation and their role in changing human mind. The recent studies have challenged the traditionally held view that learning changes only the way the brain functions, but he showed that structural changes at the macroscopic level were possible. He discussed regarding the demonstration on five areas where effects of meditation on human brain and mind can be assessed with structural correlations i.e. psychological, electrophysiological (EEG), neuro-imaging (fMRI, SPECT), hormonal and epigenetics. Scientific experiments have confirmed that during meditation mind was disconnected with outer world as observed by the decrease activity in parietal lobes. Dr. Shailesh Mehta (Ho-

listic Science Research Centre, USA) described scientific aspects of Vitarag Vignan and its relevance to the human health. He brought out that complete health i.e. physical, mental and social health could be achieved by adhering to ancient principles. The relevance of diet, particularly



vegetarianism, in improving the physical health and mind was described. In a comparative study on 156 females, Samani Amal Pragya (JVBI, India) showed that Preksha Meditation raised the level of forgiveness. Forgiveness is an active decision to let go resentment and thought of revenge. Studies are warranted for better evaluation of forgiveness and its beneficial effect on mental health and peaceful coexistence.

### EXPERIMENTAL WORKSHOP -2

Shri Arun Zaveri (Scientific Meditation Organization, Mumbai, India) chaired this session. Shri Zaveri described that our primal drives were responsible for both pleasurable as well as painful instincts and desires. These can be suitably modified with practice of meditation. This is achieved through reduction in karmic load and reprogramming of mind. Dr. Prakash Sanchetee (Kolkata, India) studied 98 subjects who did fasting for a varying period of 5-50 days. Results showed reduction in body weight, body mass index, blood pressure, lipid levels, protein levels and serum cortisol levels. However, no change was observed in pulse rate, hemoglobin and blood sugar levels. Dr. MP Lele

(AIR, New Delhi, India) described the effects of preksha meditation (PM) on holistic health in the modern age. The major detrimental factors of health are environmental degradation, erratic life styles and absence of spirituality.



Dr. Vimla Vyas (Human Resource Development Centre, University of Allahabad) described the alteration of neurochemistry of meditation in stress. Physiological experiments suggested that there was reduction in stress related autonomic and endocrine measures and neuro-imaging showing strengthening of areas of brain.

### EXPERIMENTAL WORKSHOP -3

Dr. Ms Renuka Jain (Avesthagen Limited, Bangalore, India) described meditation as a simple art of calming down the mind. As is true in Jain religion, the practice of meditation or dhyana is core of all religious traditions. Jain scriptures are full of depiction of meditation in attaining salvation. It was suggested in discussions that a good literature review and analysis were highly warranted. Dr. Arvind Jain Gelra (Dr S N Medical College, Jodhpur, India) presented his study of 24 patients of bronchial asthma and observed a significant subjective and clinical improvement with three months practice of PM. There was reduction in daily requirement of inhalers and oral tablets. The study is preliminary and experiments are required on larger number of patients for longer period of observation. Dr. Falguni Zaveri (University of Mumbai, Mumbai, India) reviewed the literature on effects of spiritual practices on mind and brain. She described the changes as noted on single photon examination computed tomography (SPECT), positron emission tomography (PET), hormonal changes and on electroencephalography (EEG).

### EXPERIMENTAL WORKSHOP- 4

Dr. SC Manchanda (AIIMS, New Delhi, India) said that cardiovascular diseases were leading cause of death worldwide. The main causes are unhealthy life style, psychosocial stress, tobacco and lack of exercises. In his studies, Dr. Manchanda and his team have shown that PM training resulted in regression of risk factors and regression of coronary atherosclerosis. PM was found to detoxify the body, mitigate fatigue, enhance endurance, and improve immune functions. Dr. Anshul Jain (FORTIS Hospital, Delhi, India) described that through life style modification we could control major risk factors for non-communicable diseases including cardiac diseases. Several studies have reported the reduction in blood pressure, obesity, blood sugar level, insulin resistance, platelet aggregation and cardiovascular

mortality by practicing meditation. Mr. Girish Shah (Carry the Vision, California, USA) described that humans were born with compassion which reduced the stress level. He has shown that global compassion movement initiated by his group has a positive effect on the participants. Prof. Seema Ashar (Mulund College of Commerce, Mumbai, India) described her study on the effect of PM on emotional intelligence of teachers and noted a positive improvement. She speculated that PM would have a significant improvement in emotional health of children. Shri Parasmal Dugar (Mumbai, India) described effectiveness of various mudras in different diseases and health which was well appreciated. However, participants suggested that scientific studies were necessary before any meaningful conclusion. It was considered important to identify and analyze each component of Preksha Meditation and find out their effect on brain and health employing scientific methods and modern techniques.

### CONCLUDING SESSION AND TAKE HOME MESSAGE

The Valedictory function was chaired by Shri B.R. Bhandari, the Chancellor of JVBI. Dr. Samani Chaitanya Prajna



welcomed the guests and audience. She told that happy blending of science and spirituality is current need of the time to live happy and harmonious life as well to save the planet. She expressed her deep sense of gratitude to the team members and announced for the next ICSJP to be supposed in Kolkata in 2017. Dr. N Bhandari presented highlights of the conference. He categorized the conference into three parts; theoretical wherein relativity, karmic theory, cosmos etc. were discussed. He said that there existed a gap between science and Jain philosophy. This conference has bridged the gap. He pointed out that wave and particle nature of photons has been established by scientists much later than Jain Anekantavada, which states this or that or both may be true. Regarding origin of universe whether it is eternal or originated in Big Bang, Jain scholars have to write their thought in the language of science. Nature of paramanu and atom and samaya were discussed. Second important aspect discussed was science, ethics and society and importance of aparigraha, terrorism, was brought about. World is getting integrated by knowledge. Jain philosophy preaches self-correction in our mind. Personal ethics, soul, consciousness etc. were discussed. BMIRC should select research problems and connect to world.

Dr. K.P. Mishra recalled how the idea of organizing inter



national conference on science and Jain philosophy came up at the initiative of Muni Mahendra Kumar ji. He said more than 15 countries and more than 25 scientists and about 850 participants have gathered at this campus of IIT Bombay which has encouraged us adequately. He said "this is a beginning of big objective". A momentum has been set in and our future task will be determined by will of administration and academic leadership. He said 'we have to learn a lot from spiritual practices'. Education in spirituality is certainly needed. Important scientific institutions like BARC, TIFR, MU, SNTD University, IIT Bombay, Inst. of Chemical Technology and Somaiya College have come together which is a source of optimism. It is true that there are gaps in knowledge but I foresee new opportunities to cap the gaps. Many new ideas have been put forward for research in future. He recalled his discussions with Acharya Mahaprajna ji about rebirth, death and consciousness. Jain philosophy has elements of science but is not adequately exposed to scientists in the east as well in the west.



Muni Abhijit Kumar showed his happiness of IIT and BMIRC coming together to organize this conference. He referred to Lord Mahavir's messages. He referred to the talk of Prof. Roger Penrose who spoke of cyclic world similar to the ideas in Jain philosophy. Shri Anurag Batra (Chairman, Media) Guest of Honor admired the organization of conference on science and Jain philosophy. We are in era of technology which has relevance of philosophy. He referred to the book 'Proof of Heaven' by Alexander wherein experience of visiting another world has been described. He recalled how Swami Vivekananda was inspired by Max Muller. He exhorted that younger generation should be exposed to science. He stressed importance of love in life telling a relevant story.



Mr. Justice Jasraj Chopra (Former Justice of Rajasthan High Court) appreciated that, in his memory, it is the first time that science has been given appropriate place in congregation of religion. He said science and spirituality are complementary to each other. He described this conference as an example of completely secular in nature. Mr. Justice Adarsh Goel (Justice of Supreme Court of India), Chief Guest, said that reducing the threat of violence and mitigating poverty are our goals. Science has to be used for welfare of society. He emphasized the importance of EQ in human development. He quoted Albert Einstein, "science without religion is lame and religion without science is blind". Religion has inspired value based life in society. He recalled how more than a century ago Vivekananda spoke for integration of science and religion. He cautioned "Unscientific religion is unacceptable". Prin



ciples of Jainism are relevant to life. He quoted famous thought by Swami Vivekananda 'life is short they alone live who live for others'.

Muni Mahendra Kumar reminded that experts from diverse discipline have gathered and spoken in this conference. A book should be published compiling their lectures and thoughts. He reminded the philosophers like Einstein, Heisenberg and others who recognized that science and religion have to find solutions to problems of society. We should be careful because science can act as boon as well curse. Therefore, scientific progress has to be in pace with spiritual practices. Research at BMIRC has to be focused to removing the suffering of people. Violence and terrorism have to be tackled by compassion and education. He said santhara practice is based on strong spiritual principle. It is not a suicide. Also, illegal abortions have to be stopped as they are murders. He exhorted that in future such conferences be held biannually. With the blessing of Acharya Mahashraman ji and guidance and permission of JVBI, next International Conference may be organized in Kolkata in 2017. It was felt that essentials of Jain preach-

ing and traditions should be effectively communicated to western philosophers and scientists.

Shri BR Bhandari said "Jainism is a way of life". He said this conference was unique and first of its kind in his experience. Spirituality teaches morality and ethics. Ethics is important in business. A good example is Swaminarayan temple and their message for humanity. He cited a story of visit by the seer of Swaminarayan temple in USA who stated that broken parts are united and not thrown away in accordance with Indian perception of religion. Shri Bhandari desired that based on ahimsa, peace brigade should be formed to spread the message of establishing peace in society.

Prof. PR Bhat of IIT Bombay said this conference is a big success by all standards. The sessions were meticulously planned and speakers were carefully chosen. I have been amazed to witness the continuity of programs from morning to late evenings. Regarding Jain philosophy, he wondered why no Tirthankara after Vardhaman? It needs to be researched. He said, 'science got separated from church in west but it did not happen in India'. This is because science and religion grew hand in hand in India in ancient times. A point of consensus emerged that education and research in Jain philosophy needs to be strengthened and BMIRC offers an excellent opportunity to build national and international collaborations for conducting relevant research in various areas of science and spirituality.

In concluding remark the Chancellor of JVBI Dr. Basant Raj Bhandari said that this conference is unique and historical in the history of Jainism, being the member of UNESCO I have attended various national and international conferences but ICSJP 2016 has surpassed all the best conferences I have ever attended. There was flood of knowledge in this conference, I have never seen such a unique and glorified conference. It has given a big image of JVBI to the world of Science & Philosophy.



The conference ended with National anthem followed by Mangal Paath by Muni Amrit Kumar ji.

### MEDIA COVERAGE

The deliberations of the conference attracted unusual media attention. More than 50 reportages in various Dailies of English, Marathi, Gujarati and Hindi from Mumbai and India covered the events of the conference.



### FEEDBACK AND SUGGESTIONS FOR FUTURE

Delegates were given opportunity to express their views on relevant issues of Jainism and science. They were also given feedback form for evaluation of quality and future course. It turned out that expectations were high for starting appropriate research projects on science and spirituality in the context of Jain philosophy at Bhagwan Mahavir International Research Center. It was suggested that BMIRC should be developed into a world class Research Center



engaging best minds and talented scholars by granting fellowship. A Ph.D. research program should be designed and implemented. In view of possible collaborations with reputed Institutions like, TIFR, MU, IIT Bombay, BARC, NEERI, ICMR Laboratory, Institute of Reproduction and many others in Mumbai, it was suggested to establish a branch of BMIRC in or around Mumbai and some other metropolitan cities to effectively disseminate the message of Jainism on the basis of philosophy and modern science. In modern society Jain preaching of non-violence and ahimsa have torch bearing roles to help steer mankind in right direction. It was suggested that such conferences should be organized every 2-3 years. Many youths proposed that conferences should be organized for young Jain students and scholars. Intellectual consensus was to present principles and practices of Jainism in innovative manner.

# ORGANIZING TEAM OF ICSJP - 2016



Memento to IIT Prof. P.R. Bhat



Memento to IIT Prof. Rajkishor



ICSJP Secretariate



Organising team of Anuvrat foundation



IIT Prof. D. Parthasarthy



Event managment Team of Anuvrat Foundation



Mumbai Organising Team



Yuva Team



JVBI Team



ICSJP Secretariate Team



Cultural Programs



Organising Team JVBI

## BMIRC-JVBI Action Plan (2017-2021)

BMIRC aims for scientific research to examine the significance and relevance of Jain philosophy, spiritual doctrines and practices in the context of present world scenario by integrating Science and Spirituality and for promoting personal growth, moral & ethical values, social harmony and sustainable global developments.

### Background

An International Conference on Science and Jain Philosophy (ICSJP-2016) organized by BMIRC in collaboration with Indian Institute of Technology, Bombay and University of Mumbai in January, 2016 was attended by philosophers, scientists, Jain scholars, religious masters and other allied professionals with diverse specializations from around the world. It was emphasized that studies on integrating science with spirituality are the need of the time in order to advance knowledge and bring awareness of Jain philosophy for benefit of society. It was also considered important to establish research cells in metro-cities to forge collaborations with reputed universities and research institutes for enabling utilization of research facilities and experienced resource for conducting research. To give momentum to research programs and for ensuring steady advancement of knowledge in the chosen fields, establishment of few chairs by inviting reputed scientists/philosophers/spiritualists was considered immediate requirement.

### Action Plan

There is a well developed infrastructure for philosophical and theoretical Research at BMIRC, Ladnun but facilities for conducting empirical scientific studies are lacking. Therefore, establishing collaborations with other institutions would be desirable. To begin the research programs, the following course of action is suggestive.

(A) Coordinated Research Programs (CRP) in a few selected thrust areas should be identified and initiated, and a provision may be made for up-gradation to Regional Centers, after review and permission by UGC. Each CRP may consist of several inter-related research projects, to be submitted by the interested researchers. The research will be coordinated by the Principal Investigator designated as Director of the Program.

(B) Development of appropriate human resources of scientists/philosophers interested and capable in pursuing research related to spirituality. Guidelines of UGC/CSIR have to be followed for the selection of research fellows and research faculty.

(C) Establishment of long-term collaborations with universities and research institutes at the local and global levels in the thrust areas.

(D) Organizing symposia, seminars and training programs in specific areas relevant to science and Jain philosophy

## Coordinated Research Programs (CRP)

Taking into account the ongoing research projects, facilities created and expertise available, following Research Programs have been identified for immediate commencement:

### 1. SCIENTIFIC RESEARCH FOR PROMOTING AHIMSA

**Program Coordinator: Prof. Viney Jain, Prof. Anil Dhar**

**Location: Ladnun and Adhyatma Sadhana Kendra, Chattarpur, Maharauli, New Delhi**

It is proposed to strengthen this research program at Delhi under the guidance of Dr Viney Jain. The effects of Jain spiritual practices such as, preksha-dhyan, kayotsarga, pratikraman on aggressiveness, forgiveness and transformation of aura (Leshya) will be systematically explored at various levels in individuals and groups. The underlying molecular-genetic, psycho-biological and psycho-social processes will be studied in depth.

Combination of non-invasive biophysical techniques with spiritual practices will be explored for optimum and cost-effective management of public health challenges. Simple and effective protocols, based on the empirical evidence and knowledge thus gained, will be developed to control anti-social behaviour and enhance non-violent and non-aggressive conduct in personal and social life.

### 2. EFFECTS OF JAIN PRACTICE OF FASTING ON PHYSIOLOGY & CONSCIOUSNESS

**Program Coordinator: Dr Pratap Sanchetee, Dr Prakash Sanchetee**

**Location: Jodhpur**

It is proposed to start this program at Jodhpur and at Kolkata under guidance of Dr Pratap Sanchetee. It will study effects of diet and different modes of fasting at different levels from physiological, psychosocial, autonomic, biochemical, metabolic, hormonal, epigenetic markers, and spiritual aspects in a comprehensive manner.

### 3. PHILOSOPHICAL AND SCIENTIFIC STUDIES ON CONSCIOUSNESS

**Program Coordinator: Dr Narendra Bhandari, Prof. S.S. Pokharna**

**Location: PVB, Koba, Ahmedabad**

It is proposed to start this program at Ahmadabad under guidance of Dr. Narendra Bhandari. Consciousness as understood by different philosophies and religions vs current physical models by taking a multi disciplinary approach and involving physicists, psychologists, neurophysicians and religious scholars. Eventually some consensus must emerge and it is proposed to prepare a document describing all the viewpoints which could be published as a base line book. Seminars by experts and conferences may be organized to bring all types of scholars in one group. The aim is to develop a model based on Jain concepts of consciousness in terms of modern scientific context.

### 4. COMPREHENSIVE RESEARCH ON MEDITATION

**Program Coordinator: Dr Pratap Sanchetee, Dr Sudhir Shah**

**Location: JVBI, Ladnun**

This research program will be located at Ladnun under the guidance of Dr Pratap Sanchetee with active collaboration of the Department of Science of Living (SOL), Jain Vishva Bharati Institute (JVBI). Basic as well as applied aspects of meditation will be researched in this program. Research related to effect of meditation on health and diseases will be on psychosocial, physiological (EEG, GSR, evoked potentials etc), biochemical, hormonal, neuroimaging (fMRI, PET, SPECT and Doppler blood flow study etc), autonomic and epigenetic parameters. Some of the diseases planned to be studied in first phase are sleep disturbances, headache, behavioural problems, intelligence, stress related problems, inadequate school performance, inadequate job performance, control of hypertension & reversal of atherosclerosis, control of diabetes, respiratory diseases etc.

### 5. ON-LINE TRAINING COURSES IN HOLISTIC HEALTH & PREKSHA MEDITATION

**Program Coordinator: Prof. Muni Shri Mahendra Kumar, Dr Vivek Maheshvari**

**Location: Ladnun, Mumbai & Jaipur**

This program will be located at Ladnun, Jaipur and Mumbai under guidance of Prof. Muni Shri Mahendra Kumar. HHOTC program for diseases and health will be scientifically researched with the aim to develop various modules for effective management of different diseases through the Preksha Meditation, Yoga and Therapy.

### 6. LITERATURE RESEARCH & PHD THESIS

**Program Coordinator: Prof. Samani Chaitanya Prajna, Dr Yogesh Jain**

**Location: Ladnun**

This program will be located at Ladnun under guidance of Prof. Samani Chaitanya Prajna and Dr Pratap Sanchetee. Department of Jainology and all other departments of JVBI will be actively involved in literature based research. Some of the topics suggested are: Evolution of animal kingdom including human; Evolution theories of aging; Evolution and historical perspective of age in animal kingdom including human across the globe; Evolution of brain across the ages; Concept of brain and mind in religion and current scientific perspective; Comparative study of different types of meditation etc. along with the editing and Hindi & English translation of the ancient canonical and philosophical texts.

### 7. ENGAGING JAINISM WITH MODERN ISSUES

**Program Coordinator: Prof. Prof. N.L. Kachhara, Dr T.M. Dak**

**Location: Ladnun and Udaipur**

This program will be located at Ladnun and Udaipur and Delhi under guidance of Prof. N.L. Kachhara. Jainism is one of the most ancient religions, which came into existence as a result of the most non-violent approach and humanitarian viewpoint towards all creatures. It is an indigenous religion originated and developed on Indian soil with a profound progressive attitude and judicious understand-

ing of social requirements and philosophical indispensable necessities of the time. The program will focus for the wider application of the Jain principles and practices to the social, ideological, economic, environmental, ecological and other modern issues the world is facing today. The program will help present the humanistic Jainism involved in social and inter-faith and inter-cultural realm.

## Major Academic Plans - 2016

### 1. DOCTORAL RESEARCH PROGRAM

BMIRC has planned a comprehensive Ph.D. program following the guidelines of UGC for conducting research in specific areas identified by the Research Advisory Committee (RAC). Fellowships will be provided at different levels as applicable. Programs have been designed for inviting Visiting Scientists and appointing Professor Emeritus for guiding research scholars

### 2. YOUTH ENGAGEMENTS AND TALENT PROMOTION

BMIRC proposes to begin several new academic and research programs with an objective to strengthen and disseminate tenets of Jain philosophy by proactive plans involving research scholars and interested youths. It is planned to design education and training programs for younger generation of Jain community to bring awareness and to imbibe values of moral and ethics in social behaviour and professional disposition.

- It is proposed to proactively encourage young scholars to engage in research and teaching on Jain concepts and philosophy. It is sought to provide financial support through fellowship schemes instituted with the help of philanthropists and charity minded individual donors/corporations/registered trusts.
- Schemes will be designed to develop and engage a pool of committed and qualified scholars and researchers in science and social fields by enhancing interactions through lectures, seminars, symposia and conferences.
- It is proposed to disseminate major message of Jainism by launching publications in National and International Journals for sharing perspectives and to build effective academic presence of Jain philosophy in the world forum of intellectuals.

### 3. LECTURE SERIES

BMIRC has started lecture series by eminent spiritualists, philosophers, scientists and scholars for the positive dialogue discourse on happy blending of science and spirituality.