

# BHAKTIVEDANTA INSTITUTE

ADVANCED STUDIES IN CONSCIOUSNESS AND SCIENCE

# Timeline

1986  
Mumbai



First World Congress  
for Synthesis of Science and Religion

1990  
San Francisco



World's First International Conference on  
Study of Consciousness within Science

1997  
Kolkata



Second World Congress  
for Synthesis of Science and Religion

1997  
Mumbai



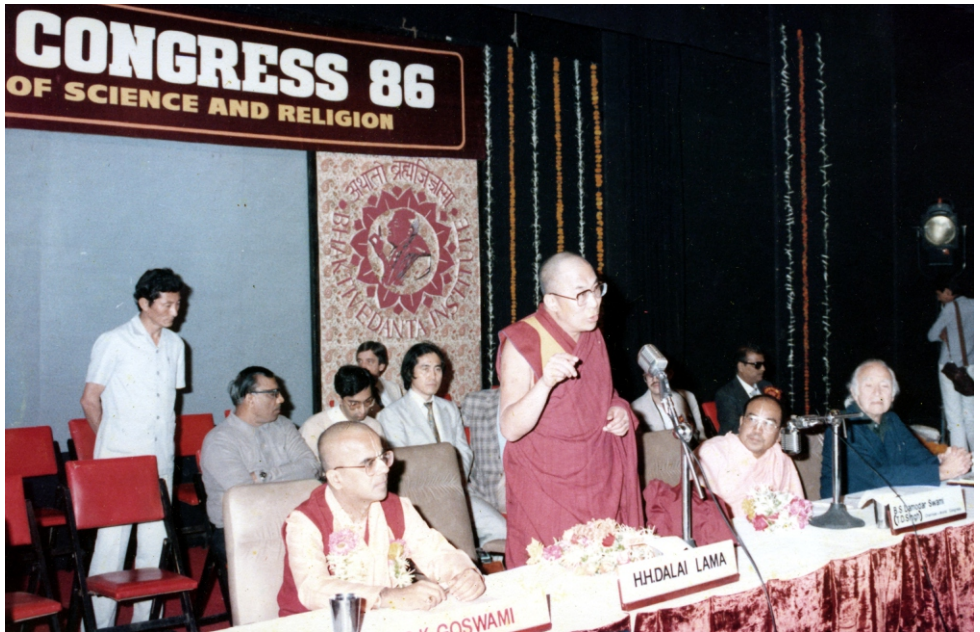
World's first Program in Consciousness  
Studies inaugurated by Prof. Charles Townes

1998  
San Francisco



Colloquium on Consciousness and Science,  
San Francisco





## First World Congress for the Synthesis of Science and Religion 1986, Mumbai

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- Invited speakers at the four-day conference included  
Ernan McMullin  
Joseph Weizenbaum  
The Dalai Lama  
Huston Smith  
Eileen Barker  
John Searle  
ECG Sudarshan  
George Wald  
Harvey Cox and many others.
- Over 1000 conference attendees.



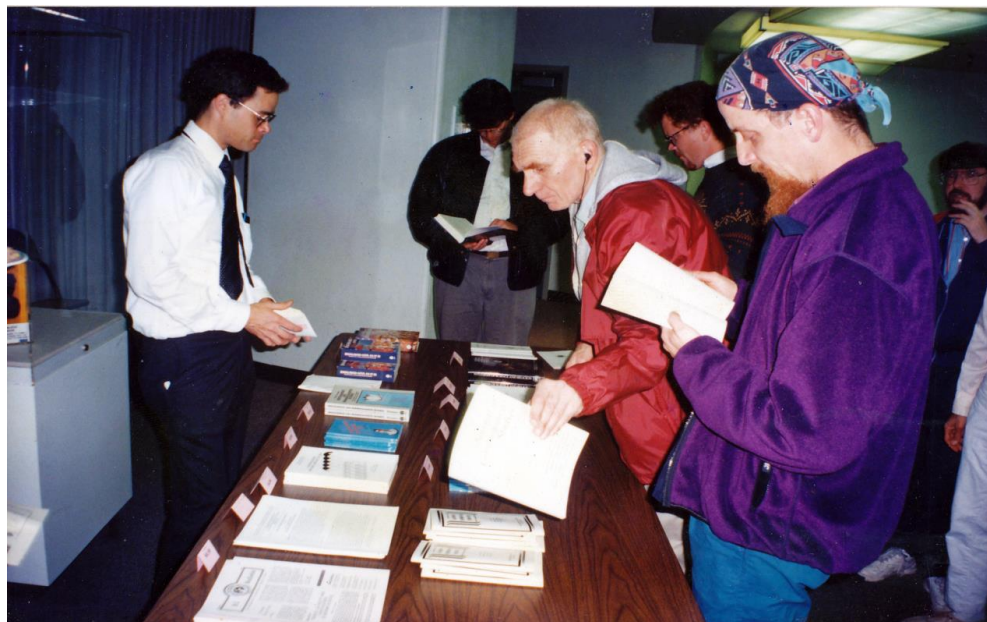




World's First International Conference on  
the Study of Consciousness Within Science  
1990, San Francisco

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- Invited scholars at the conference included  
Sir John Eccles, Nobel Laureate in Neurophysics  
George Wald, Nobel Laureate in Medicine  
E. C. G. Sudarshan, Univ of Texas at Austin  
Robert Rosen, Dalhousie University, Canada  
Vasilli Nalimov, Moscow State University  
Henry Stapp, Lawrence Berkeley National  
Laboratory and many others.
- Over 450 conference attendees



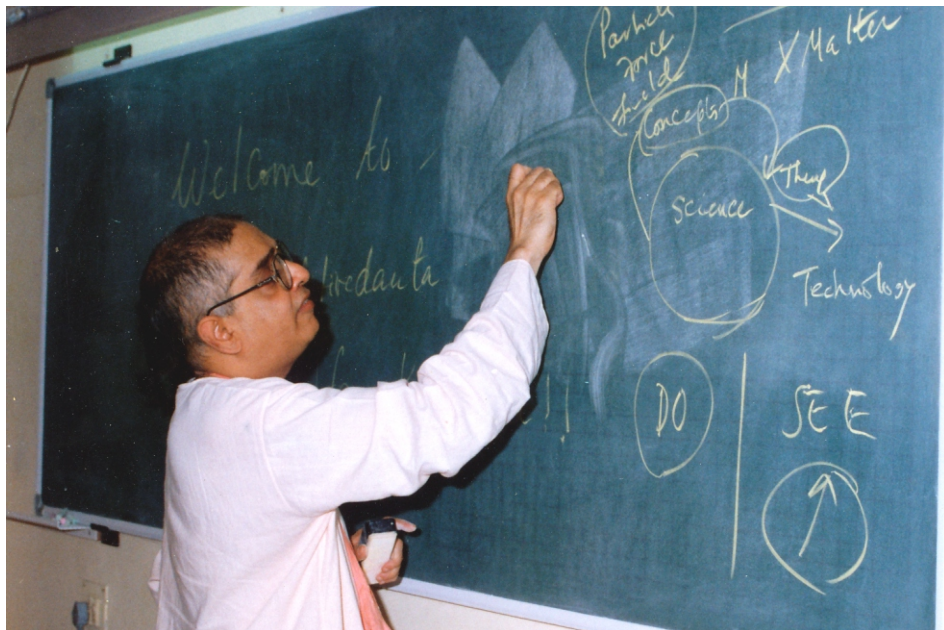


## Second World Congress for the Synthesis of Science and Religion 1997, Kolkata

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- Invited speakers at the four-day conference included  
Charles Townes, Nobel Laureate in Physics,  
Ayatollah M. Damad, Inst. of Islamic Studies, Iran  
Joe Kamiya, Univ. of California  
T. K. K. Iyer, National University of Singapore  
E. C. G. Sudarshan, Univ. of Texas at Austin
- Over 1800 conference attendees and 45 distinguished delegates.



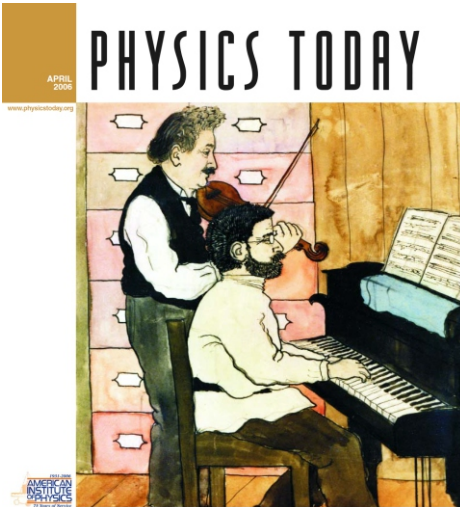




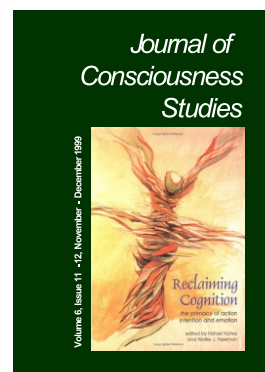
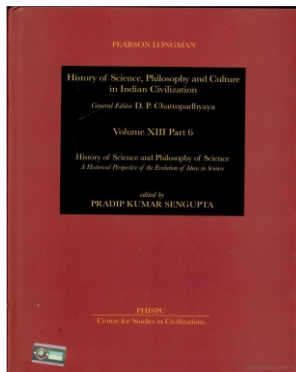
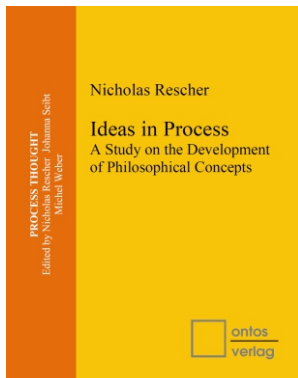
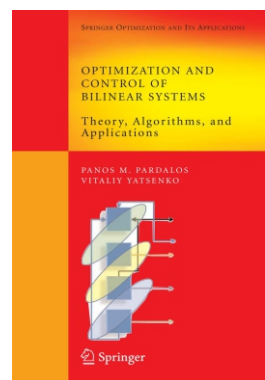
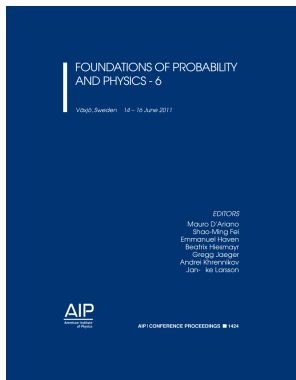
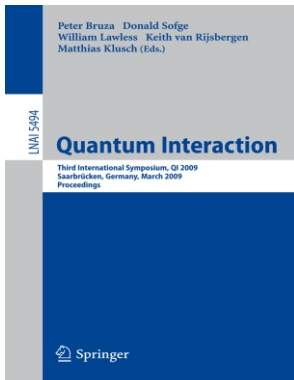
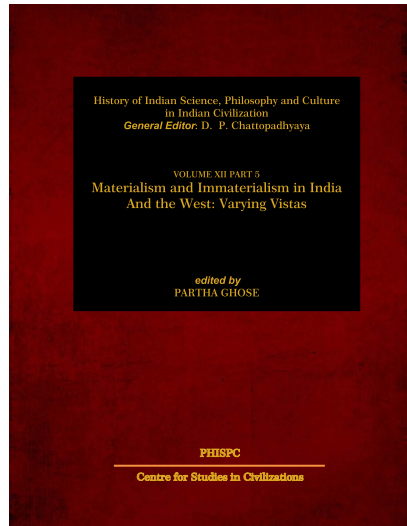
## World's First M.S. and Ph. D. program in Consciousness Studies 1997, Mumbai

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- Inaugurated by Charles Townes, Nobel laureate in physics and inventor of laser
- Collaboration with BITS, Pilani, one of India's top technical universities
- The graduate program is not the study of consciousness per se, but it is a rigorous scientific study of matter while taking into account the presence of consciousness in the lived world. Thus, the program will conform to the widely accepted standards and practices of scientific research pertaining to the study of matter



A Leiden duet,  
Einstein and Ehrenfest



# Research Publications

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Research papers from the institute are published in top peer reviewed journals and books from leading publishers such as Springer Verlag, Journal of Consciousness Studies, Journal of Physics, Philosophy of Science. Our research work has received international scholarly appreciations and has also been included in the curriculum of top North American universities. Our research papers span multiple fields including philosophy of science, physics, chemistry, biology and artificial intelligence

Gomatam, R., (2017) Is Physics Truly Empirical, Currently? Abstract submitted at "DPG Spring Meeting of Matter & Cosmos Section (Smuk) with the division and working groups", Bremen

Gomatam, R., (2017) Objective Semantic Information- An Introduction, Abstract submitted at the "European Congress of Analytic Philosophy (ECAP '09)" organized by European Society for Analytic Philosophy, Munich

Gomatam, R., (2017) What is radiation, "really"? Abstract submitted at the British Society for Philosophy of Science (BSPS), Annual Meeting 2017, University of Edinburgh

Gomatam, R., (2016) Toward Relational Reality--From Einstein and Tagore to Gaudiya Vaishnava Vedanta, Published in "Einstein, Tagore and the Nature of Reality", Partha Ghose (editor), Pickering and Chatto Publishers (a division of Taylor and Francis/Routledge).

Gomatam, R., (2015) Objective Semantic Information and Quantum Local Causality. Presented at the conference, "Causality in a Quantum World". This conference was part of a project at the University of Queensland entitled, "Causal Power of Information in a Quantum World".



Gomatam, R., (2015) Toward Avoiding Nonlocality (and Locality) in Quantum Physics, Proceedings of the Pacific Division of the American Association for the Advancement of Science, Vol 34 (1), p. 145.

Gomatam, R., (2014) Toward Placing the Concept of 'Chemical Element on a New Quantum Footing, Annual Meeting of the International Society for the Philosophy of Chemistry, London

Gomatam, R., (2012) How Do Classical and Quantum Probabilities Differ? Foundations of Probability and Physics-6, Conference Proceedings Series, Khrennikov, A. (Ed.), American Institute of Physics, pp. 105-110

Gomatam, R., (2009) Quantum Theory, the Chinese Room Argument and the Symbol Grounding Problem, Lecture Notes in Computer Science, in Bruza, P. et al. (eds.), Volume 5494, Springer-Verlag pp. 174-183.

Gomatam, R., (2008) Quantum Realism and Haecceity, Materialism & Immaterialism in India & the West: Varying Vistas, in Ghose, P.(ed.), Munshiram Manoharlal Pub Pvt Ltd, 2010, ISBN 978-81-87586-42-5, pp. 853-872

Gomatam, R., (2007) Niels Bohr's Interpretation and the Copenhagen Interpretation--Are the two incompatible? Philosophy of Science, December, 74(5), pp. 736-748

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Gomatam, R., (2005) Do Hodgson's propositions uniquely characterize free will? Invited commentary on a target paper, "A Plain Person's View of Free Will" by David Hodgson, Journal of Consciousness Studies, 12(1), pp. 32-40, Imprint Academic: UK

Gomatam, R., (2005) Quantum Physics and Philosophy, Computer Science of India Communications, 29(6), December, p. 22-28

Gomatam, R., (2004) Physics and Common Sense--Relearning the Connections in the Light of Quantum Theory, HSPCIC, Vol. XI, Part I: Philosophical Consciousness and Scientific Knowledge, Chattopadhyaya, D.P. & Sen Gupta, A.K. (Eds.), CSC, New Delhi, pp. 179-207

Gomatam, R., (1999) Quantum Theory and Observation Problem, Journal of Consciousness Studies, 6(11-12), p. 173-190

Gomatam, R. (1987), Real and Artificial Intelligence: Toward a hierarchical model of consciousness, intelligence, mind and body, Synthesis of Science and Religion, Bhaktivedanta Institute.

Anderson, G.; Gomatam, R.; Behera, L. (2014), "Contradictions in the Quantum Mechanical Explanation of the Periodic Table", Journal of Physics: Conference Series, p 490

Sinari, R. A. (2001) "The Bipolar Weltanschauung of the Indian Scientist" a project report submitted to the Indian Council of Social Science Research, New Delhi

Sinari, R. A. (2001) "Reflections on John Searle's Philosophy of Consciousnesses" a paper published in the July-Sept 2001 issue of Journal of Indian Council of Philosophical Research (JICPR, Vol. XVIII No.3) pp.91-106

Sinari, R. A. (1999) "The Internality of Consciousness Experience" Discussion and Comments appeared in JICPR, Vol. XVII No.1, September-December 1999, pp 158-163



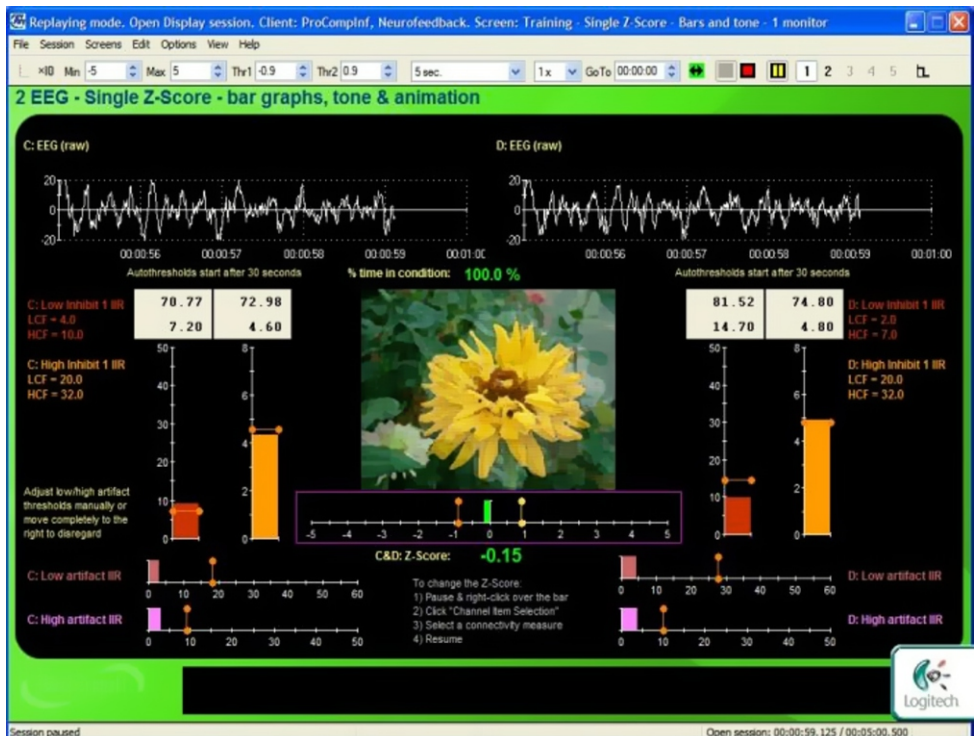


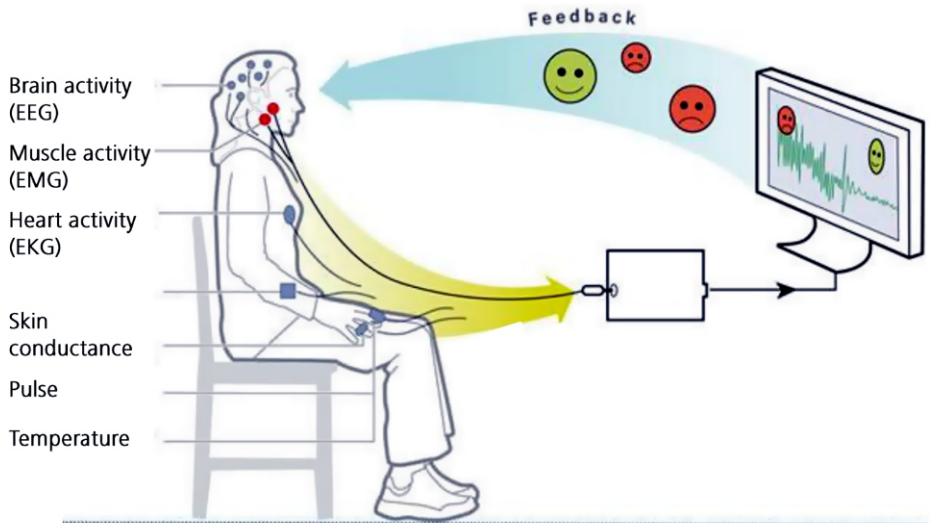
## M.S. and Ph. D. program in Consciousness Studies in collaboration with BITS, Pilani

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- Our students have gone on to join prestigious universities and laboratories around the world including
  - Harvard University
  - Leeds University
  - Utrecht University
  - City University of New York
  - Indian Institute of Technology, Bombay
- Others have been placed in leading multinational companies





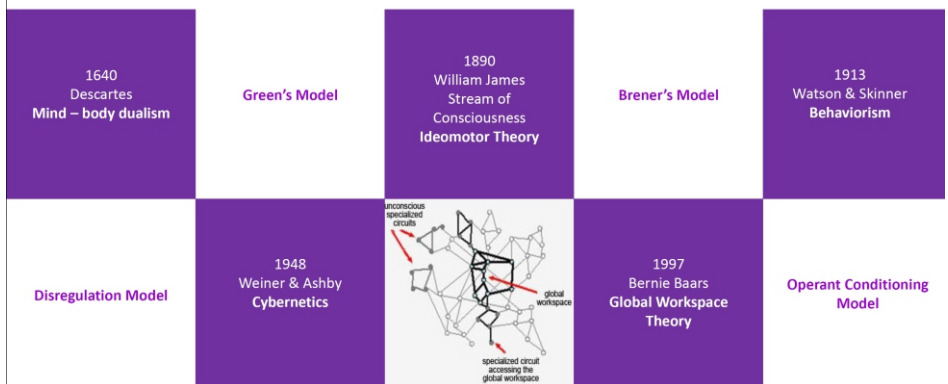


## State of the Art Biofeedback Research

- Biofeedback is a group of therapeutic procedures which utilize electronic instruments to accurately measure, process and feed back to persons and their therapists, meaningful physiological information with educational and reinforcement properties about their neuromuscular or autonomic activities, both normal and abnormal, in the form of binary, auditory or visual feedback signals.
- The institute has a biofeedback lab equipped with state of the art biofeedback equipment from Thought technologies.
- Research at the institute is currently focused on treatment of Type II Diabetes Mellitus and Hypertension using biofeedback.
- Prior research at the institute includes 3 Master's thesis - on biofeedback models, emotion and biofeedback and a comparison of biofeedback and autogenic training

1640	Rene Descartes	Mind – Body Dualism
1870	Brentanno	Intentionality
1890	William James	Stream of Consciousness and Ideomotor theory
1913	Watson & Skinner	Behaviorism
1948	Weiner & Ashby	Cybernetics
		Connectionism
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1990	R. Gomatam	First Intl. Conference on Consciousness within Science
1991	Daniel Dennett	Multiple drafts model
1997	Bernie Baars	Global Workspace model

#### Reassessment of the field of Biofeedback in the light of Consciousness Studies



## Biofeedback and Consciousness Studies

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Biofeedback training involves gaining conscious control over certain physiological parameters of the body, which one is not usually conscious of. Although an attempt was made to investigate the nature of consciousness by Descartes, Brentano, William James and others, the advent of behaviorism in the field of psychology removed the study of mental states and consciousness from science. Because these states were deemed to be unobservable, they were seen as subjective, and having no role to play in the scientific study of the organism which by definition was supposed to be objective. However, in the 1960s, developments in the field of biofeedback once again raised the issue of mental states and the subjective experience of the organism. Signals displayed to the organism via electronic instrumentation made the organism aware of internal states that he did not ordinarily have access to. The conscious observation of these states, along with biofeedback training allowed the organism to gain conscious control over them. This new development once again raised the issue of consciousness and mental states. However, prior to the 1990s, consciousness was not a legitimate field of study within science and so cybernetics and behaviourism was used to try and explain the results of biofeedback. However with the first international conference for consciousness studies within science, organised by Gomatam and the Bhaktivedanata Institute in 1990, consciousness became a legitimate field of study within science. Models of consciousness such as the Bernardie Baar's Global Workspace Model were used to try and explain biofeedback.



## Appreciations for our graduate degree program

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"This program is unique in the world...  
The academic rigor is excellent."

**Dr. Arnauld Delorme, University of California at San Diego,  
Visiting Faculty**

"This is a serious institute that is ready to investigate the  
biggest problem that science is facing."

**Ronan Sandford, Student**

"It is great to be part of an institute that is doing original  
scientific research."

**Jayant Silva, Student**

## Scholarly Appreciations for our Scientific Research

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"I was very interested in the talk by Dr. Ravi Gomatam,... he showed, by some nice arguments that the proper way to think of quantum mechanics is in terms of relationships.

This is a new way of thinking...

It may be that this is how we should be doing science."

**Brian Josephson, Nobel Laureate, Physics**

"Gomatam has proposed a new approach according to which quantum theory ought to use the terms 'statistics' or 'probability' to refer only to the occurrence of observable events and altogether renounce the notion of probabilities when talking about quantum ontological states."

**Prof. B.V. Sreekantan, Ex- Director of the Tata Institute of Fundamental Research**

"We agree with Gomatam (1999) who argues for a revision of our notion of macroscopic objects . . . Indeed, the key to progress . . . may lie in a willingness to abandon stalwart concepts of dynamism such as energy, momentum, force, and even causation at the fundamental level of modeling."

**(M.W. Stuckey (2000) Uniform Spaces in the Pregeometric Modeling of Quantum Non Separability; A NATO funded paper)**

# **Bhaktivedanta Institute**

**[www.bvinst.edu](http://www.bvinst.edu)**

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