#### In the context of

"Dayalbagh Science of Consciousness (DSC) as well as Doctor of Science of Consciousness: D.Sc. (Consciousness)- Post Ph.D. Award"

#### THE WINTER SESSION OF

#### DAYALBAGH SCIENCE OF CONSCIOUSNESS – 2022

(A Virtual Conference in Panel Discussion Mode including remarks from the audience)

BY

**Dayalbagh Educational Institute** 

(Deemed to be University), Agra-282005, India

University of Birmingham, U.K.

**University of Kiel, Germany** 

University of Waterloo, Canada

Dr. Apurva Narayan, University of Western Ontario, London, Ontario, Canada SPONSORED BY

Radhasoami Satsang Sabha, Dayalbagh (Sponsoring Body of DEI)

(Conference Website - www.dsc-dei.in)

Date of Conference: January 01, 2022

**Venue: DEI Multimedia Laboratory** 

Time: 06:15PM to 01:49 AM (January 02, 2022)

Sunday, 02-01-2022, 01:53 AM

#### **Programme Proceedings**

S. No.	Item	Details	Duration		Tir	ne	
1.	Welcome and University Prayer	Prayer in Hindi, English & Sanskrit, further augmented by French, German & Chinese	12 mins				
2.	Presentation by Students of School of Languages, Dayalbagh	Usage and demonstration of day- to-day easy phrases in French and German	4 mins	During Morning Field Work along with the celebrations for 'Shiksha-Diwas'			
3.	Cultural Programme by Rajaborari Estate	Tribal Cultural Performances	4 mins				
4.	i. Qawwali ii. Bhojpuri Presentation of a Song and Dance Number	<ol> <li>Mrs. Santosh Joshi and party</li> <li>As recently Staged</li> </ol>	15 mins				
S. No.	Item	Details	Duration	Time (India)	Time (UK)	Time (Germany)	Time (USA)
		Evening Session					
1.	Panel Discussion on "Dayalbagh Science of Consciousness (DSC) as well as Doctor of Science of Consciousness: D.Sc. (Consciousness)-Post Ph.D. Award" With reference to transition from "Bhelpuri" Entertaining celebration to emerging "Bhojpuri" brand of transformation including recent Sanskritized version of Health-care-cum-Self-Defense Habitat, modelled in accordance with the Aryan Civilization of "Bharat Varsh (India)" of approximately between 73,000 and 55,000 years of vintage with prospects of its integration (such as merging/collision of Milkyway Galaxy with Andromeda Galaxy approximately 4.5 Billion years hence) in continuing cooperation with NGO SPHEEHA (Society of Preservation of Healthy Environment and Ecology and Heritage of Agra) as a joint venture with DEI (Deemed to be University)ever since its inception in 2006.	Director, DEI	195 mins	6.15PM- 9.30PM	12:45 PM- 4.00PM	1:45 PM- 5.00PM	4:45 AM- 8.00AM
2.	Best Poster Awards for students and Closing Remarks by Moderator*						
		Total Duration			200 mins		

<sup>\*</sup>Recent e-mail exchanges between Prof. S.C. Dutta Roy, formerly Professor of Electrical Engineering at the Indian Institute of Technology Delhi with Rev. Prof. Prem Saran Satsangi, Retired Professor and Founding Managing Director FITT (Foundation for Innovation and Technology Transfer), Department of Electrical Engineering and Coordinator Applied Systems Research Program, IIT Delhi in conjunction with RD & AT (Rural Development & Appropriate Technology Centre), IIT Delhi

#### LIST OF PANELISTS

#### **DISTINGUISHED PANELISTS**

- Dr. Anirban Bandhyopadhyay, NIMS, Japan
- Dr. Andrew Davies, University of Birmingham, UK
- Dr. Andrea Diem Lane, Mt. San Antonio College, USA
- Dr. David Lane, Mt. San Antonio College, USA
- Dr. Sergey Petoukhov, Russian Academy of Sciences, USSR
- Dr. Ramanujan P., Retd. Programme Director, C-DAC, India
- *Dr. R. S. Pareek*, Founder Pareek Homeopathic Center Alumnus, Royal London Homoeopathic Hospital (1956)- *Special Invitee*

#### INTERNATIONAL PANELISTS

- *Dr. Apurva Narayan*, University of Western Ontario, London, Ontario, Canada (Headquarters Toronto)
- Prof. Anand Srivastava, University of Kiel, Germany
- Prof. Anna Margaretha Horatschek, University of Kiel, Germany
- The CAU Prof.es R. Adelung (Material Science), W. Duschl (Physics), A. Horatschek (English Department), M. Krieger (HistoryDepartment), A. Müller, (Theology), A.Srivastava (Mathematics), U.Stephani (Medicine), J. Zimmermann (English Department)

#### PANELISTS FROM DEI AND DAYALBAGH

- Prof. (Dr.) Pami Dua, Director/Vice-Chancellor, Delhi School of Economics
- Mr. Nova Bhojwani, Branch Secretary, New York (USA) facilitated by Mrs. Dayal Ray, President DRSA, Soami Nagar, New Delhi-110017
- Prof. Prem Kumar Kalra, Department of Computer Science & Engineering, IIT Delhi & President Systems Society of India, ably assisted by <u>Prof. Huzur Saran</u>, Department of Computer Science & Engineering, IIT Delhi
- Mr. MA Pathan, President SPHEEHA
- Mr. Pankaj Gupta, Secretary SPHEEHA
- Prof. (Dr.) Anand Mohan, Registrar DEI
- *Mrs. Sneh Bijlani*, Treasurer and Chairperson Finance Committee, DEI (Deemed to be University)
- Prof. K. Soami Daya, Coordinator Multimedia Centre, DEI, Professor, Department of Physics & Computer Science; Coordinator Centre for Consciousness Studies; Dean Planning, DEI
- Prof. Gur Pyari Jandial, Professor, Department of English Studies, DEI
- Dr. Ratan Saini, Former Head Computer Centre, DEI
- Prof. (Dr.) P. Sriramamurty, Incharge Divinity Study Forum, Dayalbagh - Editor Dayalbagh Herald (weekly), Dayalbagh

- Mrs. P. Ramani, Assistant Editor, Dayalbagh Herald, Dayalbagh
- Mrs. Surat Pyari Srivastava, Editor, Hindi Prem Pracharak (weekly), Dayalbagh
- Mr. K.B. Mehta, President DRSANA (Dayalbagh Radhasoami Satsang Association of North America), Monroe Township, New Jersey, USA
- Mr. Radha Krishna Sharma, President, AAFDEI (Association of Alumni & Friends of DEI), Porter Ranch, Los Angeles County, California, USA
- Dr. S.K. Satsangi, President AADEIS & M.O. I/C Saran Ashram Hospital, Dayalbagh, Agra-282005, U.P. (India)
- **Dr. Arun Kumar Gupta**, Former Head of Department of Radio Diagnosis (Ultrasound), AIIMS & presently Emeritus Professor, DEI
- Dr. Sanjeev Sharma, (Former Head of Department of Radio Cardiology, AllMS) & Emeritus Professor, DEI
- Prof. Satya Prakash, Former Head of Nuclear Chemistry, BhabhaAtomic Research Centre (BARC), Trombay, Mumbai
- Prof. (Dr.) S.S. Bhojwani, Chairman Scientific Advisory Committee, Department of Agroecology, Radhasoami Satsang Sabha Gaushala(Dairy), Dayalbagh, Agra 282005 & Former Director, DEI
- Mr. Puneet Chowdhry, General Manager, Department of Agroecology, Radhasoami Satsang Sabha Gaushala (Dairy), Dayalbagh, Agra-282005
- Dr. Anjoo Bhatnagar, Paediatrician, Saran Ashram Hospital, Dayalbagh
- Dr. Usha Khanna, Obstetrician & Gynaecologist, Saran Ashram Hospital, Dayalbagh
- Dr. Dayal Pyari Goel, Obstetrician & Gynaecologist, Saran Ashram Hospital, together with Dayalbagh Alumni & Student Representatives of DEI
- Prof. C. Patvardhan, Department of Electrical Engineering, DEI and Secretary & Convener, ACE
- Prof. D.S. Mishra, Emeritus Professor, DEI, and Secretary & Convener, ACE
- Prof. A.K. Saxena, Head Department of Electrical Engineering, DEI
- *Prof. V.B. Gupta*, Vice Chairman, ACE (Retired Head of Department of Textile Technology, IIT Delhi)
- Prof. K. Santi Swarup, Department of Management, DEI
- (Retired) *Prof. Department of Electrical Engineering (Dr.) Vishal Sahni*, Manager, Rajaborari Estate
- Dr. Prem Sewak Sudhish, Associate Professor, Department of Physics & Computer Science, DEI (Internationally acknowledged Unique Identity Disburser)
- Dr. Dayal Pyari Srivastava, Assistant Professor, Department of Physics & Computer Science, DEI

- Dr. Bani Dayal Dhir, Assistant Professor, Department of English Studies & Coordinator (i-c-n-c) TALL {(iNFORMATIONcOMMUNICATION-nEURO-cOGNITIVE-) Technologies Assisted Language Laboratory} & Co-coordinator Centre of Consciousness Studies, DEI
- Prof. C. M. Markan, Professor, Department of Physics & Computer Science, DEI
- Dr. Shabh Preet, Professor, Department of Zoology, DEI
- Dr. Amla Chopra, Assistant Professor, Department of Zoology, DEI

#### YOUNG PANELISTS

- Dr. Aarat Kalra, Post-Doctoral Fellow, Princeton University, USA
- Dr. Apurva Ratan Murty, Post-Doctoral Fellow, MIT, USA

**From:** Prem Pyara vpprempyara@gmail.com**Date:** 21 December 2021 5:45:48 pm **Subject:** Fwd: a good news

To: Arsh@dayalmotors.com

----- Forwarded message ------

From: **Prof. S. C. Dutta Roy** <<u>s.c.dutta.ro</u>y@gmail.com>Date: Tue, 21 Dec,

2021, 12:17 pm Subject: a good news

To: Prem Pyara < vpprempyara@gmail.com>

Here is something which came as a pleasant surprise;

"This nomination/award is in recognition of Prof. Dutta Roy's half a century of teaching various facets of Signal Processing, which have changed the lives and careers of millions of students across the globe,through his classes and online lectures". Please share it with Prof Satsangi and Sukhdev and, if possible,V B Gupta. Lovescdr

\_\_\_\_\_

PROFESSOR S. C. DUTTA ROY

(formerly Professor of Electrical Engineeringat the Indian Institute of Technology Delhi) 164, HAUZ KHAS

APARTMENTS (SFS)

AUROBINDO MARG, NEW DELHI 110016, INDIATELEPHONE: 91-11-

26963054

E-MAIL: s.c.dutta.roy@gmail.com

Congratulations.

Continue the course of progressive recognitions.

Best Wishes.

Wednesday, 22-12-2021, 03:51 AM Received, Tuesday, 21-12-2021, 05:45 PM This is envisioned as translating into practice the comprehensive integration of <u>Trinity within Trinity within Trinity AMONG</u> ART, SCIENCE & ENGINEERING each requiring 21 degrees of freedom/independence with Interpretive Structural Modelling (ISM), as founded on the Abstract Mathematics of Topological Graph Theory ("Line Graph Theory")\*, to achieve enroute requisite degree of freedom/independence with redundancy of nine for additional reliability not only for Microcosm (Power Law of Meditational Consciousness) but also for Macrocosm ruled by Nature with infinite variety.

Learning while Living & Living while Learning

Articulative vs. Descriptive

i.e. Phonemics (infinite variety)

vs.

Photonics (299792458 metres per second)

Leading to reciprocity

Learning while Living & Living while Learning Learning \Living

<sup>\*</sup> Including its alternative popular expressions as Triumvirates/Triplets

# VISION TALK <u>Dayalbagh</u> (TOWARD EVOLUTIONARY) <u>Science of Consciousness</u>

Prof. Prem Saran Satsangi Leader of Radhasoami Faith, Dayalbagh and

Chairman, Advisory Committee on Education
Dayalbagh Educational Institutions
Dayalbagh, Agra, INDIA

**DSC 2022** 

(Winter Session)

e-(online) Video Conferenced Mode eDElwww.education

**January 01, 2022** 

# **AADEIS**NEWSLETTER

JULY 2021 ■ JANUARY 2022

VOLUME VI, NUMBER 2 & VOLUME VII, NUMBER 1



The Association of Alumni of Dayalbagh Educational Institutions (Regd.)



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#### **RADHASOAMI**

On the Auspicious Occasion of Birthday of

Param Guru Huzur Mehtaji Maharaj (Born, December 20, 1885)

Being Celebrated as "Krishi Diwas (कृषि दिवस)", December 20, 2021

[During Morning "Agroecology Field Work" at Punjabi Farm, Dayalbagh, Agra- 282005, U.P. (India)]

AADEIs "Krishi Seva-Krishi Deva (कृषि सेवा - कृषि देवा)" (Play)

#### Department of Agroecology

Radhasoami Satsang Sabha, Dayalbagh, Agra- 282005, U.P. (India)

(Homi) Bhabha Atomic Research Centre (Mumbai, India)

Vikram Sarabhai Space Centre (Thiruvananthapuram/Trivandrum, India)

Radhasoami Dictum of "Better-Worldliness":-

"Bhojan Bahut Na Khav, Tere Bhale Ki kahoon (भोजन बहुत न खाव, तेरे भले की कहं)"

[Supreme Lord God of (Creational) Universe]

Super Godspeed May God help you prosper:- (Divinity-Study-Forum)

Unity With Duality at Will .:-

Trinity within Trinity within Trinity

(Upper, Middle, Lower Modes)

Inspiration (Spheroids)

Innovation (Ellipsoids)

Integration (Helixoids)

#### Dayalbagh "Radhasoami Science of Consciousness"

[Rooted in Abstract Mathematics of Topological Graph ("Line-Graph") Theory]

[Prof. (Dr.) S.S. Bhojwani, Chairman, Scientific Advisory Committee of Department of Agroecology, Radhasoami Satsang Sabha, Dayalbagh, Agra- 282005, U.P. (India)

Shri/Mr. Puneet Chowdhry, General Manager, Department of Agroecology, Radhasoami Satsang Sabha, Dayalbagh, Agra- 282005, U.P. (India)]

From "Ramanujan Machine" to "Radhasoami Universal Machine", i.e.:-

From Purely Spiritual -Static (e.g. Hydrastis & Electrostatics) Potential Differences:-

to Purely Spiritual- Dynamic Equilibrium.

चला खेत चला-सभे खेत चला

[भोजप्री (हिंदी) : भारत वर्ष के सभी पूर्वी राज्य जैसे; बिहार, पूर्वी उत्तर प्रदेश, बंगाल, उड़ीसा, कींकण, केरल...में प्रचलित]

#### <u>वचन/कथन</u>



प्रातः दिसंबर 20, 2021

In the context of the Paper published by a team of Researchers

Representing forward march by taking recourse to what we call as

(Ultra-transcendental Meditation Practices with Philosophy of <u>Radhasoami Faith</u> at the Apex to achieve the Pinnacle of Pinnacles- closely approximated by the Abstract Mathematics of Topological

"Line-" Graph Theory)
Prof. Myril B. Reed, Prof. Sundaram Seshu, Prof. Herman E. Koenig, Prof. H.K. Kesavan,

Prof. Peter H. Roe, Prof. Jack B. Ellis, Prof. Norman Balabanian, Prof. Michel G. Malti,

Prof. B. Rakosh Das, Prof. Anirban Bandyopadhyay, Prof. A.N. Sherbourne, Prof. K.D. Srivastava, Prof. Paul Parker,
Prof. J. Sutherland Frame

Large-scale genomic study reveals robust activation

of the immune system following advanced Inner

**Engineering meditation retreat** 

(Communicated by Dr. (Prof.) Apurva Narayan, University of Western Ontario, London, Ontario, Canada;
Adjunct Assistant Professor, University of Waterloo, Waterloo, Ontario, Canada &

Dr. N. Apurva Ratan Murty, MIT, USA)

This is a continuing journey

from

भेलपुरी (Gross-Worldliness)

towards

भोजपुरी ("Better -Worldliness") -

Capturing ongoing "Better & Better-Worldliness"

Message from Prof. (Dr.) Prem Saran Satsangi,

Chairperson, Advisory Committee on Education (ACE), Dayalbagh, Agra.

- 1. Dr. Anjoo Bhatnagar (Paediatrician, Saran Ashram Hospital, Dayalbagh, Agra)
- 2. Prof. (Dr.) Saran Kumar Satsangi (M.O. I/C, Saran Ashram Hospital, Dayalbagh, Agra- 282005, U.P., India)
- 3. Prof. Prem Kumar Kalra, Director/Vice-Chancellor, Dayalbagh Educational Institute {DEI {Deemed to be University}}
- 4. Prof. Anand Mohan, Registrar, DEI
- 5. Smt. Sneh Bijlani, Treasurer, DEI
- 6. Prof. S.S. Bhojwani, Chairman, Scientific Advisory Committee, Department of Agroecology, Dayalbagh
- 7. Mr. Nova Bhojwani, Branch Secretary, New York, USA
- 8. (Retired) Prof. (Dr.) Vishal Sahni, Manager, Rajaborari Estate
- Dr. Prem Sewak Sudhish, Associate Professor, Department of Physics & Computer Science, DEI & Unique Identity Disburser, Rajaborari Estate
- 10. Prof. (Dr.) Pami Dua, Director/Vice-Chancellor, Delhi School of Economics, New Delhi
- Mr. V. Anand Rau, Administrator, International Centre for Agroecology, New Jersey, USA & currently Administrator "Gaushala" (Dairy), Radhasoami Satsang Sabha, Dayalbagh
- 12. Mr. K.B. Mehta, President DRSANA, New Jersey, USA
- 13. Mr. Radha Krishan Sharma, President AAFDEI, Chartered Accountant, Porter Ranch, Los Angeles County, California, USA
- 14. Dr. S.K. Gautam, President DRSAE, London, UK
- 15. Mr. D.N. Sharma, President DRSAA, Australia
- 16. Shri Puneet Chowdhry, General Manager, Department of Agroecology, Dayalbagh
- Shri Gur Saroop Sood, President Radhasoami Satsang Sabha and President (General Body) DEI (Deemed to be University): - IDAS (Retired), Principal Controller of Defence Accounts, Western Command, GOI.
- 18. Smt. Dayal Ray, President DRSA (Delhi Radhasoami Satsang Association), New Delhi- 110017
- 19. Prof. (Dr.) V.B. Gupta, Vice Chairman ACE (Advisory Committee on Education), a Non-statutory Body, Dayalbagh
- 20. Smt. P. Ramani, Assistant Editor, Dayalbagh Herald (Weekly), Dayalbagh
- 21. Smt. Surat Pyari Srivastava, Editor, Hindi Prem Pracharak (Weekly), Dayalbagh
- Prof. (Dr.) K. Soami Daya, Coordinator Multimedia Centre; Department of Physics & Computer Science; Dean Planning, DEI
- 23. Prof. (Dr.) Sukhdev Roy, Head Department of Physics & Computer Science, DEI
- 24. Prof. (Dr.) Gursaran, Department of Mathematics, DEI
- 25. Prof. (Dr.) C.M. Markan, Department of Physics & Computer Science, DEI
- 26. Dr. Ratan Saini, Former Head Computer Centre, DEI
- 27. Shri Dinesh Kumar Khara, Chairman, State Bank of India
- 28. Prof. (Dr.) Viral Acharya, CV Starr Professor of Economics NYU Stern, USA & Former Deputy Governor, Reserve
- 29. Shri Akash Anami, Ludhiana, Punjab, India (Silsila-e-Haqiqi by Mr. Soami Das Anami, Qatar)
- 30. Prof. (Dr.) Abhijit Vinayak Banerjee & Team (2019 Nobel Memorial Prize in Economic Sciences)
- Prof. Prem Kumar Kalra, Department of Computer Science & Engineering, IIT Delhi & President, Systems Society of India, New Delhi- 110016



# Large-scale genomic study reveals robust activation of the immune system following advanced Inner Engineering meditation retreat

Vijayendran Chandran<sup>a,b,c,1</sup>⊙, Mei-Ling Bermúdez<sup>a</sup>⊙, Mert Koka<sup>a</sup>⊙, Brindha Chandran<sup>a</sup>, Dhanashri Pawale<sup>d</sup>, Ramana Vishnubhotla<sup>d,e</sup>⊙, Suresh Alankar<sup>f</sup>, Raj Maturi<sup>g</sup>⊙, Balachundhar Subramaniam<sup>h</sup>, and Senthilkumar Sadhasiyam<sup>d,i</sup>

\*Department of Pediatrics, College of Medicine, University of Florida, Gainesville, FL 32610; \*Department of Neuroscience, College of Medicine, University of Florida, Gainesville, FL 32610; \*Department of Anesthesia, Indiana University School of Medicine, Indianapolis, In 46202; \*Department of Radiology, Indiana University School of Medicine, Indianapolis, In 46202; \*Department of Radiology, Indiana University School of Medicine, Indianapolis, Ind 46202; \*Department of Anesthesia, University of Louisville, Louisville, KY 40202; \*Department of Ophthalmology, Eugene and Marilyn Glick Eye Institute, Indiana University School of Medicine, Indianapolis, IN 46202; \*Department of Anesthesia, Critical Care and Pain Medicine, Beth Israel Deaconess Medicia Center, Boston, MA 02215; and 'Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh School of Medicine, Pittsburgh, PA 15261

Edited by Michael Posner, Psychology, University of Oregon, Eugene, OR; received June 15, 2021; accepted November 5, 2021

The positive impact of meditation on human well-being is well documented, yet its molecular mechanisms are incompletely understood. We applied a comprehensive systems biology approach starting with whole-blood gene expression profiling combined with multilevel bioinformatic analyses to characterize the coexpression, transcriptional, and protein-protein interaction networks to identify a meditation-specific core network after an advanced 8-d Inner Engineering retreat program. We found the response to oxidative stress, detoxification, and cell cycle regulation pathways were down-regulated after meditation. Strikingly, 220 genes directly associated with immune response, including 68 genes related to interferon signaling, were up-regulated, with no significant expression changes in the inflammatory genes. This robust meditation-specific immune response network is significantly dysregulated in multiple sclerosis and severe COVID-19 patients. The work provides a foundation for understanding the effect of meditation and suggests that meditation as a behavioral intervention can voluntarily and nonpharmacologically improve the immune response for treating various conditions associated with excessive or persistent inflammation with a dampened immune system profile.

meditation | immune | Isha yoga | Inner Engineering | COVID-19

Yoga and meditation are holistic disciplines that integrate both mental and physical methods for human well-being (1). These practices are growing in popularity worldwide, and according to a recent national health survey, 14% of the adult United States population used yoga or meditation within the previous year (2). Several studies have demonstrated multiple health benefits from such methods (3, 4), including reduced stress (5-8), anxiety (5, 7, 9, 10), fatigue (5, 11), depression (5, 9, 12), chronic pain (13-15), and disease severity for inflammatory bowel disease (16, 17) and cardiovascular disease (6, 18, 19). However, the mechanisms responsible for these improvements are poorly understood. These parameters are typically measured with self-reported surveys before and after meditation interventions, and such an approach may be prone to bias and subjectivity. Several studies on meditative practices have, however, shown changes in gene expression levels, demonstrating that these methods may benefit physiology at its most fundamental level (20, 21). For example, utilizing microarray technology to study the transcriptomic effects of six individuals of 38 y of twice-daily transcendental meditation practice found 200 genes differentially expressed (DE) (22). Similarly, studying the methylome of peripheral blood mononuclear cells in 17 experienced meditators after a day of intensive meditation revealed 61 differentially methylated regions (23). Studies

focusing on the impact of meditation for treating irritable bowel syndrome, inflammatory bowel disease, and hypertension have observed that several genes related to fundamental pathways to be DE (24, 25). Together, several previous studies provide strong evidence for the beneficial effects of meditation by modulating the basic cellular pathways. Nevertheless, most of the previous studies are 1) cross-sectional studies (evaluating only one time point) (26–30), 2) done on highly experienced meditators (26, 27), 3) small sample sized (26–28, 30, 31), 4) tested on handpicked nonspecific biomarkers (29, 30), and 5) confounded with different lifestyle and diet (26, 29, 30).

To understand the meditative effect and to overcome these limitations, 1) we applied unbiased gene expression analyses on four time points before and after the intensive 8-d Samyama meditation (an advanced Inner Engineering program attended by ~20,000 participants to date), and 2) we analyzed the transcriptomic changes from 388 samples obtained from 106 individuals after a residential meditation retreat including a vegan diet at the Isha Institute of Inner Sciences (McMinnville, TN).

#### Significance

Several studies on the impact of yoga and meditation on mental and physical health have demonstrated beneficial effects. However, the potential molecular mechanisms and critical genes involved in this beneficial outcome have yet to be comprehensively elucidated. This study identified and characterized the transcriptional program associated with advanced meditation practice, and we bioinformatically integrated various networks to identify meditation-specific core network. This core network links several immune signaling pathways, and we showed that this core transcriptional profile is dysfunctional in multiple sclerosis and severe COVID-19 infection. Very importantly, we demonstrated that the meditative practice enhanced immune function without activating inflammatory signals. Together, these results make meditation an effective behavioral intervention for treating various conditions associated with a weakened immune system.

Author contributions: V.C., B.C., D.P., R.V., S.A., R.M., B.S., and S.S. designed research; V.C., M.-L.B., M.K., B.C., D.P., R.V., S.A., R.M., B.S., and S.S. performed research; V.C. analyzed data; and V.C. wrote the paper.

The authors declare no competing interest.

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This article contains supporting information online at http://www.pnas.org/lookup/suppl/doi:10.1073/pnas.2110455118/-/DCSupplemental.

Published December 13, 2021

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Vidya Prasar

**DSC Winter Session 2021** 

**DEI Education Policy** 

**Air Quality** 

**Water Quality** 

DEI



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#### Important Links

- Distinguished Lecture of PROF.
  VAIDYESWARAN RAJARAMAN on
  Groundbreaking Inventions in
  Information and Communication
  Technology Thursday, April 15, 2021
  4:30 PM (IST)
- ✓ Recent update from Rev. Prof.
  Prem Saran Satsangi



✓ <u>Letter to the Editor of Scientific</u> American

#### About eDEIwww.education

Dayalbagh Educational Institute (DEI) is all set to embark on fully online delivery of certificate Courses, Diplomas and Degree programmes through e-DEI-World Wide Web (Not for profit) or eDEIwww.education. Each program is divided as modules of 2-3 courses with 9 weeks duration. The modules are administered in an online format involving standard web-based delivery components as well as a unique aspect of online consulting and discussion forums through audio and video conferencing. A student will enrol for a module or a program and after completing the requirements for the module or the program will be awarded a module or program completion certificate.

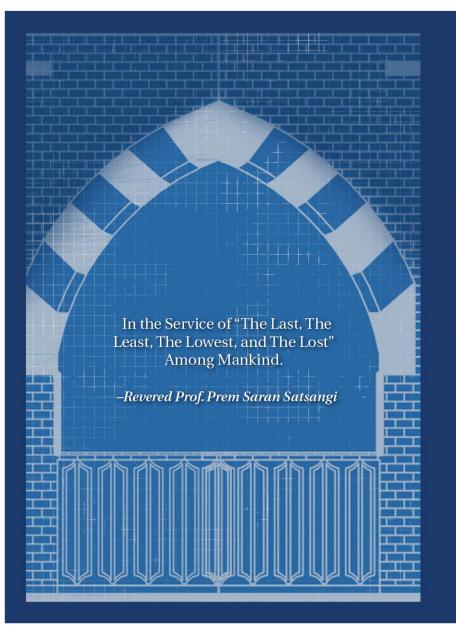
The subjects for certificate programmes will range from common soft skills to highly demanded management to contemporary nano technology and esoteric consciousness studies. Gradually the programmes will include Diplomas and Degrees in Management, Computer Science and Engineering. For these programmes, Personal Contact Modules will be organized for the students of the professional programmes so that a unique experience is created.

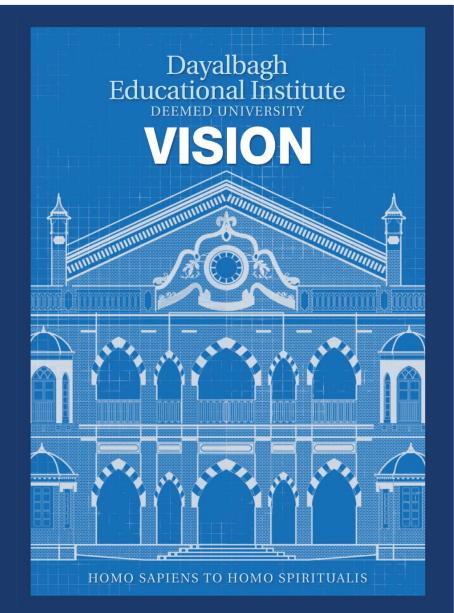
#### Weekly Periodicals

- e-Herald
- Hindi e-Prem Pracharak
- Telugu e-Prem Pracharak

#### XXXIX CONVOCATION January 22, 2021

- · Director's Report
- Convocation Address by Shri Amit Khare, IAS, Secretary, Department of Higher Education Ministry of Education, Govt, of India
- Shri Amit Khare comments in Visitors Book





"Dayalbagh, at a distance from the City of Agra, is quiet and peaceful like a village and yet there is a perfect arrangement for sanitation and cleanliness as in cities. Students, scientists and devotees keep themselves peacefully engaged in their respective activities away from the turmoil of the world, and the unemployed, agriculturists and labourers get opportunities to earn their livelihood. Neither does wealth flow here, nor does anybody starve here; neither are there any big palaces and mansions here, nor are there any dilapidated huts either; neither is anyone great or big here, nor anyone small or insignificant, and if anybody here is honoured more than others, it is he who works better or more than others. Dayalbagh belongs to every resident, while no resident has any kind of right to property in anything here. In this small place, Dayalbagh, where there is almost no illiterate person and where nobody leads a life of laziness and indolence, which is neither a village nor a town and which is both a village and a town."

Param Guru Huzur Mehtaji Maharaj (January 3, 1956)

Banaras Hindu University (B.H.U.), Michigan State University,
University of Waterloo, M.B.M. Engineering CollegeUniversity of Jodhpur, IIT Delhi and
Dayalbagh Educational Institute (Deemed University)
share the same Spirit of "Why not?"

You see things; and you say "Why?" But I dream things that never were; and I say "Why not?"

- George Bernard Shaw

# In the particular context of the First International Conference on Dayalbagh Science of Consciousness (DSC) – 2019, following Wikipedia entry, updated on December 30, 2021, is Highlighted



#### Spiritual approaches [edit]

Further information: Level of consciousness (esotericism) and Higher consciousness

To most philosophers, the word "consciousness" connotes the relationship between the mind and the world. To writers on spiritual or religious topics, it frequently connotes the relationship between the mind and God, or the relationship between the mind and deeper truths that are thought to be more fundamental than the physical world. The mystical psychiatrist Richard Maurice Bucke distinguished between three types of consciousness: 'Simple Consciousness', awareness of the body, possessed by many animals; 'Self Consciousness', awareness of being aware, possessed only by humans; and 'Cosmic Consciousness', awareness of the life and order of the universe, possessed only by humans who are enlightened. Many more examples could be given, such as the various levels of spiritual consciousness presented by Prem Saran Satsangi and Stuart Hameroff. The most thorough account of the spiritual approach may be Ken Wilber's book *The Spectrum of Consciousness*, a comparison of western and eastern ways of thinking about the mind. Wilber described consciousness as a spectrum with ordinary awareness at one end, and more profound types of awareness at higher levels. [172]

# Wilber might likely do for consciousness what Freud did for psychology." -Jean Houston, author of Life Force and Godseed

#### Foreword by John White

In 1973, when I was working at the Institute of Noetic Sciences (IONS) in California as Director of Communications, a letter arrived inquiring about financial support for a project in noetic research. The writer was Ken Wilber.

At the time Wilber was twenty-four and a graduate student in biochemistry at the Lincoln campus of the University of Nebraska. He was about to complete doctoral requirements, except for the dissertation, and hoped to find the means to take a year off from his scientific work so he could pursue in greater depth another line of research he had been engaged in for several years, both in theory and practice: the psychology of higher states of consciousness. (He had become a student of Zen Buddhism in 1972 and later was to study under several Zen and Tibetan Buddhist masters.)

Wilber's proposal for a theoretical study of Eastern and Western psychologies seemed to have much merit. But the economic tenor of the time was such that many worthy projects couldn't be funded by IONS. In fact, to be frank about it, IONS, which had been founded only a year earlier by astronaut Edgar Mitchell to study human consciousness, was in danger of going under because promised financial support hadn't come through. I regretfully informed Wilber that we couldn't provide the grant he sought. However, I encouraged him to go ahead as best he could with the research because it sounded worthwhile.

About a year later, after I had left IONS and returned to Connecticut, a letter was forwarded to me. It was from Wilber. He had indeed been busy with his project. Despite lack of institutional funding, he had found the means—principally by working as a dishwasher at a local restaurant-to write a fairly long book, *The Spectrum of Consciousness*. Would I, he asked, help him find a publisher?

I was happy to help an aspiring young writer-researcher in noetics, especially after his manuscript arrived and I looked it over. As Dr. James Fadiman, former president of the Association of Transpersonal Psychology, was to describe it later, Wilber had written "the most sensible, comprehensive book about consciousness since William James." I, too, felt that way. Recognizing a moral duty to support the book, I took it under my wing, so to speak, and was able after many submissions – thirty-three, as I recall – to find a publisher for it. Rosemarie Stewart, senior editor of The Theosophical Publishing House, regarded *Spectrum* as publishable. Clarence Pedersen, the publications manager, seconded her. Together they presented it to the Publications Board members, who agreed and accepted the book. It was published in 1977. Toward the end of the production process, after a long haul getting the book into print, Wilber dedicated it to me. I was surprised and deeply touched.

In the years since our first contact, I've watched Wilber produce a prodigious amount of extraordinary work, both as an author and as a former editor-in-chief of *ReVision* journal, which has drawn widespread and highly favorable attention in religious, academic and intellectual circles. Currently, that work consists of twelve books and a variety of shorter pieces – essays, reviews and commentaries. Altogether,

#### Foreword by John White (Contd...)

Corresponding to what has been called the perennial philosophy, Wilber observes, is a perennial psychology – a view of human identity which sees it as ultimately identical with the All or Cosmic Wholeness. *Spectrum* delineates the major levels or structures of consciousness which humans pass through as they ascend in awareness to Godrealization, to the Supreme Identity, to realization of the Self or godhead from which all creation springs.

Broadly speaking, Wilber says here, there are six major levels of consciousness: the Shadow level, the Ego level, the Biosocial bands, the Existential level, the Transpersonal bands and the level of Mind. He describes the nature of these levels, whose totality embraces the entire range of human experience, from the shadowy fragmentation of repressed psyche to the higher levels in which mind and body are organismically integrated, and beyond them to the transpersonal realms and the ultimate level which is not another level at all but rather is "what there is and all there is, spaceless and therefore infinite, timeless and therefore eternal, outside of which nothing exists."

Prior to awakening as the true nature of Self, human existence is characterized by duality and illusion. Each level has its particular dualities and illusions. They have been carefully explored by the various psychological schools of East and West, Wilber points out, and each has valuable insights and useful therapies for dealing with the disorders, pathologies and sufferings which arise on the various levels. But only when the levels are seen in an integrated fashion can one see the nondual nature of existence and make sense of the apparent contradictions which otherwise exist among the various psychologies.

For example, how can one reconcile the Freudian imperative to *strengthen* the ego with the yogic or Buddhist admonition to *transcend* the ego? Wilber demonstrates persuasively that these approaches can be understood to have equal validity, but only when the concept of pluridimensional consciousness is accepted. From that perspective, the Freudian approaches are indeed useful for assisting someone past the Shadow level. Beyond that point, however, they no longer are useful, and one must go to other psychologies because the situation is simply not Freudian in nature, just as Newtonian physics has little utility for explaining subatomic phenomena (which is why quantum physics was developed). It may be that the person has a mature ego and interacts healthily with family, society and environment, but is nevertheless not able to navigate the realms beyond ego very well. The transpersonal and spiritual psychologies – Jungian, psychosynthesis, the world's religious and esoteric traditions – are then best-suited to deal with the distress and suffering which can beset the person.

Spectrum psychology elegantly unites body, mind and spirit in a transcendent perspective which contains *all* noetic studies and spiritual psychologies, shows their strengths and shortcomings, clarifies them where needed, corrects them where necessary. And to put the icing on the cake, Wilber does that with a style which is enjoyable to read.

Altogether, Wilber's spiritual understanding, creativity, scholarship and literary competence make him, as I said in an early review of his work, the much-needed Einstein of consciousness research. "Much-needed" because since the Psychedelic Sixties, there has been burgeoning interest in higher states of consciousness, Eastern religions and mysticism, psychotechnologies, noetics and allied subjects. The outpouring of articles, books, journals, lectures, courses and so forth includes a large number of theories and models of consciousness. Often, however, one theory contradicts another or approaches data in ways which are selective, incomplete or incompatible with other approaches.

So a Grand Unification Theory (GUT) is needed in consciousness research, just as physicists are searching for a GUT to enfold all the physical forces – gravitation, electromagnetism, the weak and strong nuclear forces and, lately, the hyperforce – into one neat package.

I'm happy to report that a noetic GUT exists, thanks to Ken Wilber. It began with *The Spectrum of Consciousness* and was elaborated with greater refinement and precision through his other works. Wilber shows in an intellectually rigorous and academically acceptable manner the truth of what sages, saints and saviors have told us throughout history. He offers a "unified field theory" of nature, culture, cosmos and consciousness which is utterly brilliant and compelling. The "fields" he unifies are fields of knowledge – psychology, philosophy, religion, sociology, parapsychology, anthropology, mythology, intellectual history, economics, biology and physics, to mention the principal ones. His theoretical formulations are fully equal in importance and insightfulness to Einstein's famous equation, and they both achieved their first major breakthrough at about the same young age. Wilber's writings offer the foundation of a new paradigm for science and society. He is being recognized as the originator of a worldview which will affect our psychological, social, medical, academic and religious institutions as profoundly as did those of Darwin, Freud and Einstein – and the world will never be the same.

#### Preface to Second Edition (The Spectrum of Consciousness)

In its transcendent aspect, however, Spirit is the highest rung on our own ladder of growth and evolution. It is something we must work to comprehend, to understand, to attain union with, to identify with. The realization of our Supreme Identity with Spirit dawns only after much growth, much development, much evolution, and much inner work as described, for example, in the last chapter of this book) – only then do we understand that the Supreme Identity was there, from the beginning, perfectly given in its fullness. In other words, it is only from the highest rung on the ladder that we can realize the wood out of which the entire ladder is made.

It is this paradox of Spirit – both fully present (as the Ground of Being) and yet to be realized (as our highest Goal) – that lies behind such paradoxical Zen sayings as:

If there is any discipline toward reaching Spirit, then the completion of that discipline means the destruction of Spirit. But if there is no discipline toward Spirit, one remains an ignoramus.

As I said, different writers use these terms in one of those two opposite ways, and the results can be confusing. But they are *all* talking about these two simple "movements": away from Spirit and toward Spirit. Now, in this volume I used *evolution* to mean "the movement away from Spirit" (the "unfolding" of maya) and I used *involution* to mean "turning back toward Spirit." In doing so, I was following Coomaraswamy. In subsequent writings, I reverted to the other usage, following Aurobindo: *involution* is the move away from Spirit, getting lost and involved in maya, and *evolution* is the growth back to Spirit *as* Spirit, whereupon it is seen that all of maya is simply Spirit at luminous play.

Thus we cannot escape the fact that the world we know is constructed in order to see itself. But in order to do so, evidently it must first cut itself up into at least one state which sees, and at least one other state which is seen.

G. Spencer Brown

Consciousness is in its original nature, quiet, pure, and above the dualism of subject and object. But here appears the principle of particularization, and with the rise of this wind of action, the waves are agitated over the tranquil surface of Mind. It is now differentiated or evolves into eight levels.

D. T. Suzuki

There is thus an incessant multiplication of the inexhaustible One and unification of the indefinitely Many. Such are the beginnings and endings of worlds and of individual beings: expanded from a point without position or dimensions and a now without date or duration.

Ananda K. Coomaraswamy

Interaction with Prof. Abhijit Vinayak Banerjee,
Ford Foundation International Professor of
Economics, Massachusetts Institute of
Technology; Awarded The Sveriges Riksbank
Prize in Economic Sciences in Memory of Alfred
Nobel 2019 for experimental approach to
alleviating global poverty.



- **Prof. Pami Dua:** I am Pami Dua from the Delhi School of Economics. I congratulate you on your stellar achievement as well as the experimental approach that you have advocated and employed successfully. Now, I am associated with the D.E.I. (Deemed University) in Dayalbagh in various ways and what I want to say is that it is a living socio-economic model of community and education engagement and I feel that this model comes very much close to your work and is very aligned with your philosophy and it is just a thought that perhaps we can talk about this and have a dialogue between the approach that is used in education and also the approach that comes very close to your heart in alleviation of poverty and upliftment of marginalized sections of the society.
  - **Prof. Abhijit Banerjee:** As you know, I am very willing to come and learn. I just haven't had a chance right now. Thank you!
- During the post-event meeting, Prof. Abhijit Banerjee specially signed a copy of his new book for The Most Revered Emeritus Chairman, Advisory Committee on Education, Dayalbagh Educational Institutions. He also signed an individual copy for each of the members of the delegation, and had a few pictures with the group. Prof. Abhijit Banerjee also accepted a congratulatory note and letter of invitation signed by the President, Radhasoami Satsang Sabha and President, Dayalbagh Educational Institute on behalf of the entire community. Some additional material on Dayalbagh and the research and other activities at Dayalbagh Educational Institute will be delivered to him upon his return to Boston, USA.
- Interaction with Prof. Abhijit Banerjee took place as scheduled on November 23, 2019 on our vast Computing Cloud and Video Conferencing Network spread over 443 ± 1 nodes.

### "Radhasoami" Unity with Duality at Will in Complete Neuro-Theology **As Ultimate Reality: Science of Consciousness** [Discourses on Radhasoami Faith]

R.S.

#### **DISCOURSES** RADHASOAMI FAITH

BY

MAHARAJ SAHAB Pandit Brahm Sankar Misra, M.A.

WITH

SUPPLEMENT

PUBLISHED BY RADHASOAMI SATSANG SABHA DAYALBAGH (AGRA)

RADHASOAMI SAMVAT 191

2004

SUPPLEMENT TO DISCOURSES ON RADHASOAMI FAITH

#### REALITY AND TRUTH VIS-A-VIS WISDOM (VIA APARAVIDYA AND PARAVIDYA)

(An Invited Talk at the International Conference of the Association of Asia-Pacific Operational Research Societies on 8.12.03 at Hotel Grand International, New Delhi)

#### DR. PREM SARAN SATSANGI

I think I need to begin by explaining some of these key Key words which appear in the title of the talk. Absolute truth occurs in words: the Supreme Creational plane and is the cause of the creation. Reality, Reality is perceived truth. It is a subjective impression or realization, that is, the effect produced by the truth as the cause in vidya and the creational plane, that we perceive by sentient entities. So reality Paravidya is not absolute truth unless we can have access to the Supreme Creational plane where the cause took place for the creation. As a result the knowledge of creation arising from perceived reality, that we possess is a knowledge of sentient entities which receive or perceive subjective impressions, that is, effects of the cause in the Supreme Creational plane.

In the Supreme Creational plane, absolute truth, ultimate reality, ultimate wisdom become one and the same.

Now let me try to address wisdom also. Such knowledge which we gain from sentient entities by way of perceived reality has therefore various degrees of inherent truth in it and hence the one that is closest to the truth is designated as sentient wisdom. So, as I mentioned, once we reach the Supreme Creational plane where the cause, the prime cause of creation exists, then we have realized absolute truth, ultimate wisdom and ultimate reality.

In the context of information science we can measure the information content of any knowledge by formulating information entropy or fuzzy information entropy, I submit that if we try to maximize the information entropy of the knowledge base about the universe of discourse then we might be able to transform this

#### **Preface to Second Edition**

Radhasoami Satsang Sabha had published 'Discourses on Radhasoami Faith' written by Param Guru Maharaj Sahab for the first time in 1960, with the hope that it would meet the demand for a well reasoned exposition of the teachings of Radhasoami Faith in a logical and scientific manner, and it would be easily understood by lay readers.

It would be acknowledged that the task of explaining the order, economy and object of creation by analogies and use of terminology drawn from the ordinary world of human experience and concepts based on knowledge derived by man from physical senses (Aparavidya) is very difficult. Questions continue to arise about the conditions that prevailed before Creation, the object and manner of bringing about the Creation, its present structure and sustenance, and the nature of human life and spirit. Science has advanced considerably since the time the Discourses on Radhasoami Faith was first written and, therefore, it is possible now to explain somewhat better these difficult ideas and concepts in a language using present day terminology, knowledge and symbolism of science, though fuller and even complete understanding can be achieved only through Paravidya or direct experience on attaining the higher spiritual regions of Brahmanda and ultimately on attaining the Supreme Creational Plane in the pure spiritual region. The Radhasoami Satsang Sabha has, therefore, added a supplement to the original text, the first part of which reproduces a talk given by Most Revered Dr. Prem Saran Satsangi Sahab. In this, in the modern day language of systems science, the precreational condition of the Supreme Being, why and how the act of creation took place and the spiritual currents which accompanied the process are clearly explained. The detailed sequencing of various regions in the three Grand Divisions of the creation, formation of spiritual potential sources and the operation of the spiritual forces in the macrocosm and their concordance with the microcosm i.e. the human body has been made explicit and shown clearly through a diagram. It has also been explained as to how the meditational practices prescribed in the religion of saints can lead to spirit elevation and

movement of spirit from one region to the other. A hypothesis has been put forth, "just as the human body is a perfect microcosm of the macrocosm of the universe and it's possible to establish communion or correspondence with it, so is this aparavidya having these communication channels for understanding paravidya, that is, learning of the world beyond ours, i.e. the physical world." In the end it is said –

"I offer you as proof experiencing of these higher spiritual regions (through meditation) and seeing the scientific basis from which the whole creation has evolved"

It is very much hoped that a study of the book and the additional material now incorporated will make the reader feel interested in experimenting in true spirit of science on the efficacy of these devotional practices, besides providing clearer understanding.

It was mentioned in Preface to the first edition that in Part IV of the book Maharaj Sahab had proposed to deal with the Karma theory but this part could not be completed due to untimely departure of Maharaj Sahab from this world.

The Revered Sant Satgurus of Radhasoami Faith have, from time to time, in their Discourses explained the concept of Adi Karma, how it was responsible for the spirits being hurled down from the region of pure spirituality and leads to repeated cycles of births and deaths and how its effect can be overcome. The nature of other karmas and how they can be destroyed has also been explained. A compilation of these writings has been made by Revered Dr. Satsangi Sahab with introductory remarks about gracious object of the creation and how the assignment of Adi Karmas to spirit forces took place. It is hoped that this part of supplement would now provide a complete understanding of the Karma theory and the manner in which the effects of karmas — Adi and intermediate or ordinary ones can be eradicated.

Dayalbagh, Agra 1<sup>st</sup> July 2004 Prem Kumar
President
Radhasoami Satsang Sabha

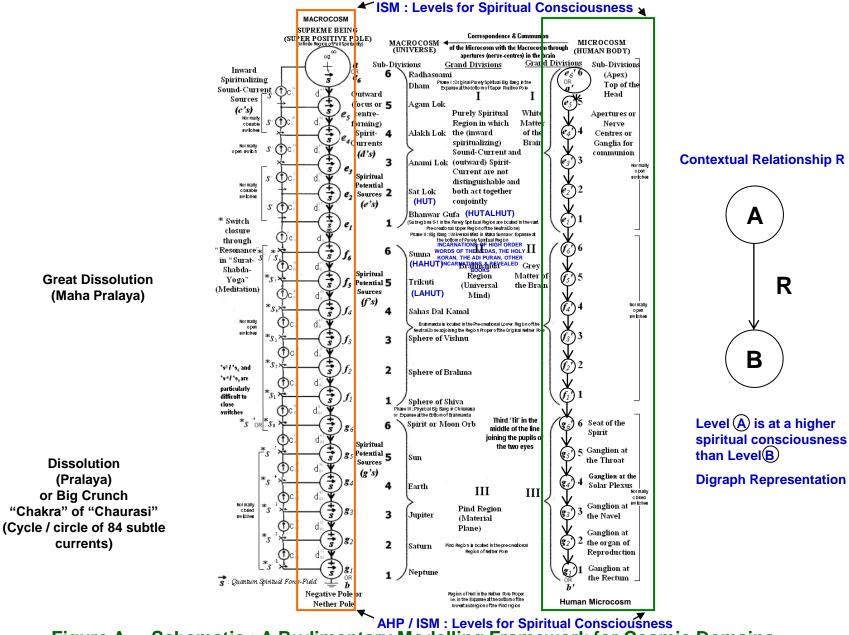
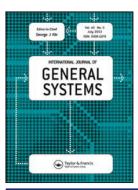


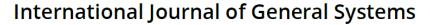
Figure A Schematic : A Rudimentary Modelling Framework for Cosmic Domains

(The entire creation is evolved out of the pre-creational Nether Pole)

The second sub-division sphere of a set of six sub-divisions of each grand-division of Macrocosm or Human-Microcosm is the one which is endowed with generative function:

e.g.  $e_2$  (Sat Lok),  $f_2$  (Sphere of Brahma); and  $g_2$  (Man: Ganglion at the organ of reproduction)



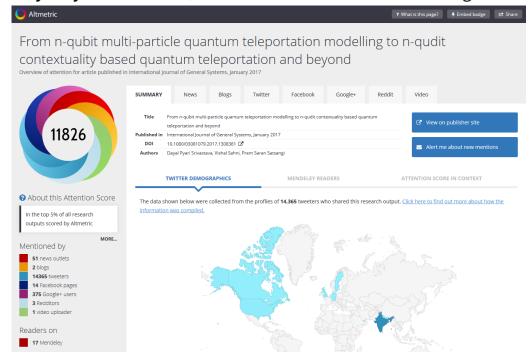




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# From n-qubit multi-particle quantum teleportation modelling to n-qudit contextuality based quantum teleportation and beyond

#### Dayal Pyari Srivastava, Vishal Sahni & Prem Saran Satsangi



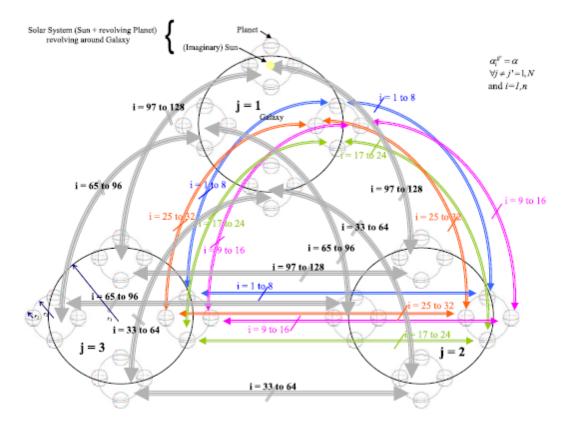


Figure 9. [Colour version available online]. A qudit (d = 7) with  $n = 2^7 = 128$  discretization points in a system of N = 3 qudits. Sample connections are shown for discretization points i = 1-32. Similar connections exist for all i as shown by grey lines.

If radius of the sphere (planet) is  $r_1$ , radius of its orbit around sun is  $r_2$ , and radius of orbit of solar system around galaxy is  $r_3$  ( $r_1$ ,  $r_2$  and  $r_3$  are labelled in qudit j=3 for illustration), then  $r_1^2 = |\alpha|^2 + |\beta|^2 + |\gamma|^2$  (equation of a sphere: planet) p=3 degrees of freedom  $r_2^2 = |\delta|^2 + |\epsilon|^2$  (equation of circle: planet orbit around sun) q=2 degrees of freedom  $r_3^2 = |\zeta|^2 + |\eta|^2$  (equation of circle: sun orbit around galaxy) r=2 degrees of freedom Total degrees of freedom n=p+q+r=7Discretization points used  $=2^p 2^q 2^r = 2^3 \times 2^2 \times 2^2 = 8 \times 4 \times 4 = 128$ We will have  $r_1^2 + r_2^2 + r_3^2 = 1$  as the system equation for j which is the same as Equation (2), i.e.  $|\alpha|^2 + |\beta|^2 + |\gamma|^2 + |\delta|^2 + |\epsilon|^2 + |\zeta|^2 + |\eta|^2 = 1$  for a seven-dimensional qudit. This idea can be similarly extended for even higher dimensions of d.

UNIVERSE OF PURE

OF MIND

UNIVERSE

CONSCIOUSNESS

(SPIRIT)

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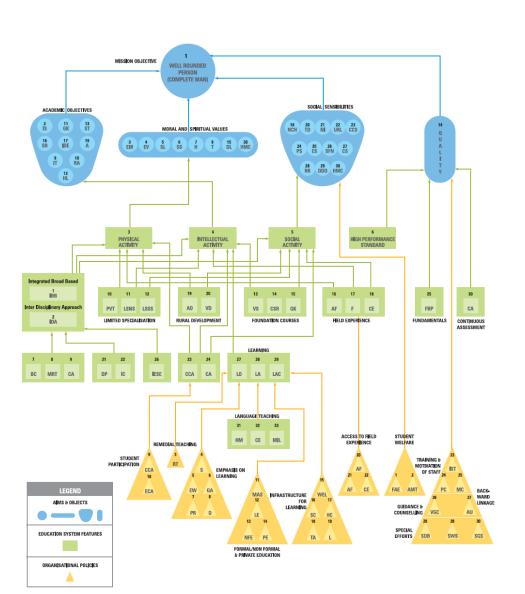
### SUPER-POSITIVE POLE OF INFINITE CONSCIOUSNESS

**MAHASUNNA (SEPARATOR)** 

CHIDAKASH (SEPARATOR)

### Interpretive Structural Model (ISM) of DEI Education System

#### ISM FOR HIGHER EDUCATION POLICY SYSTEM



#### **LEGEND**

#### I AIMS AND OBJECTS

- 1. Well-rounded Person
- 2. Intellectual Strength
- 3. Emotional Maturity
- 4. Ethical Values
- 5. Simple Living
- 6. Selfless Service
- 7. Humility
- 8. Truthfulness
- 9. Independent Thinking
- 10. Reasoning Ability
- 11. General Knowledge
- 12, Habit of Learning
- 13, Scientific Temper
- 14. Quality of Education
- 15. Dignity of Labour 16. Self Reliance
- 17. Inter Disciplinary Exposure
- 18, National Culture & Heritage
- 19. Aptitude
- 20, Tolerance for Diversity
- 21. National Integration
- 22. Understanding Rural Life
- 23, Class-less and Caste-less Society
- 24, Political System
- 25. Economic System
- 26, Social Forces & Needs
- 27, Civic Sense
- 28, A Respect for Rights
- 29. Duties & Discharge of Obligations
- 30. High Moral Character

#### II EDUCATIONAL SYSTEM

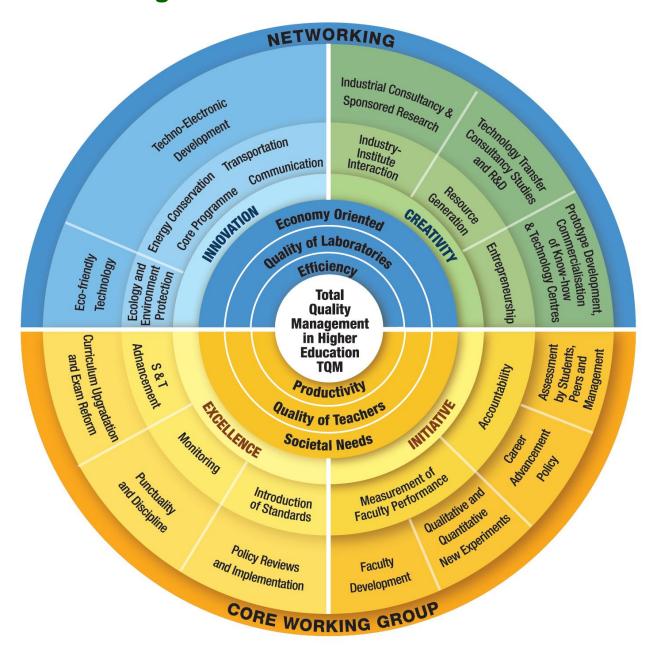
- 1. Integrated & Broad Based
- 2. Inter Disciplinary Approach
- 3. Physical Activities
- 4. Intellectual Activities
- 5. Social Activities
- 6. High Perfomance Standard
- 7. Breadth of Coverage
- 8. Most Recent Trends of Thought
- 9. Concentrates of Academics
- 10. Primarily Vocational and Technical
- 11. Limited Specialisation in Natural Sciences
- 12. Limited Specialisation in Social Sciences.
- 13, Foundation Courses and Value System
- 14. Foundation Courses like Comparative Study of Religion
- 15, Foundation Courses like General Knowledge
- 16. Field Experience (Work Experience) in Farms
- 17. Field Experience (Work Experience) in Factories
- 18, Field Experience (Work Experience) in Commercial
- Establishments
- 19, Agricultural Operations
- 20. Village Developments Programs
- 21. Democratic Processes in Student Activities
- 22. Indian Constitution and Other Forms of Government
- 23, Co-Curricular Activities
- 24. Cultural Activities
- 25, Fundamental and Basic Principles
- 26. Interlinkage between the Educational System and Environment
- 27. Learning by Observation
- 28. Learning by Analysis
- 29. Learning by Acquisition of Knowledge
- 30. Continuous Assessment
- 31, Hindi as the Medium of Instruction
- 32. Competence in English
- 33, One other Modern Indian Language

#### III ORGANISATION

- 1. Free / Affordable Education
- 2. Assistance through Means Test
- 3. Remedial Teaching
- 4. Learning through Seminars
- 5. Learning through Experimental Work
- 6. Learning through Group Activities
- 7. Learning through Paper Reading Sessions
- 8. Learning through Discussions
- 9. Students Participation in Management & Organisation of
- Co-Curricular Activities
- 10. Students Participation in Management & Organisation
- of Extra-Curricular Activities
- 11. Major Academic Subjects
- 12. Lateral Entry
- 13. Non-Formal Education
- 14, Private Education
- 15. Well Equipped Workshop / Laboratories
- 16, Science Centre

- 17. Hobby Centre
- 18. Teaching Aids
- 19. Library
- 20. Agricultural Farms for Field Experience
- 21 Small Scale Industries for Field Experience
- 22. Commercial and Service Establishments for Field
- 23. In-Service Training Programmes & Orientation Courses
- 24. Adequate Physical Conditions for Motivating the
- 25. Adequate Mental Climate for Motivating the Teachers 26. Vocational Guidance and Counselling of the Students
- 27. Attachment of the School to a University Level College
- 28. Special Efforts to Overcome Handicaps of Weaker
- 29. Special Efforts to Overcome Handicaps of
- Disadvantaged Background
- 30. Special Care to the Gifted Students

# A Conceptual Model for the Total Quality Management (TQM) Framework in Higher Education and Technical Education



## **Notable Contributors**

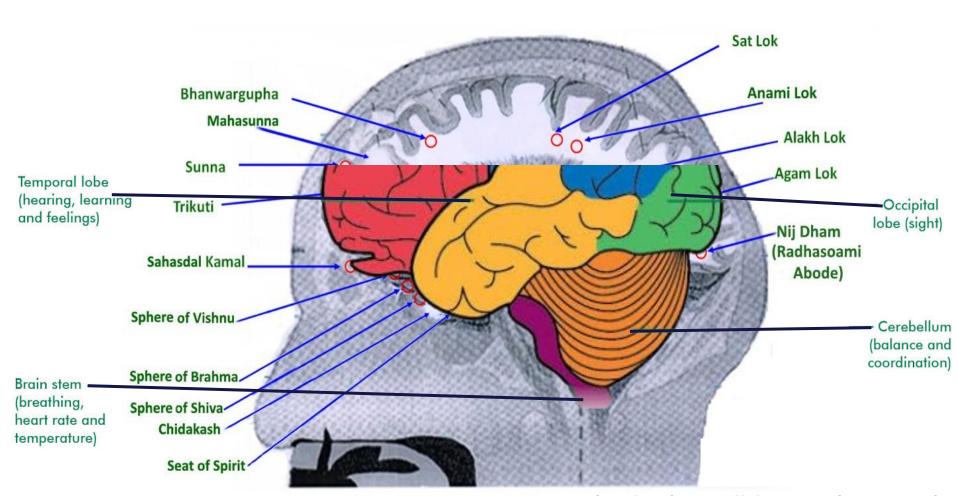
- Prof. John D. Ryder (President)
- Lotfi A-Zadeh (Fuzzy Set Theory)
- Prof. Herman E. Koenig
- Prof. H.K. Keshvan
- Prof. Myril B. Reed
- Prof. J. Sutherland Frame
- Prof. Paul Parker
- Prof. Joseph Strelzoff
- Prof. Peter H. Roe
- Prof. Paul Samuelson (Nobel Prize in Economic Sciences in 1970, authored research papers with Prof. Subramanian Swamy)
- Prof. Simon Kuznets (Nobel Prize in Economic Sciences in 1971, Ph.D. adviser of Prof. Subramanian Swamy)
- Ashby's Law of Requisite Variety
- Planck's Dimension (Max Planck)- 10<sup>-35</sup> Meter
- Dr. Prem Sudhish Raizada- Stanford University
- Dr. Apurv Narayan- University of Waterloo and University of British Columbia
- Mr. N. Ratan Murty- MIT

# Autobiographical retrospectives Published in 2006 in International Journal of General Systems (Taylor & Francis)

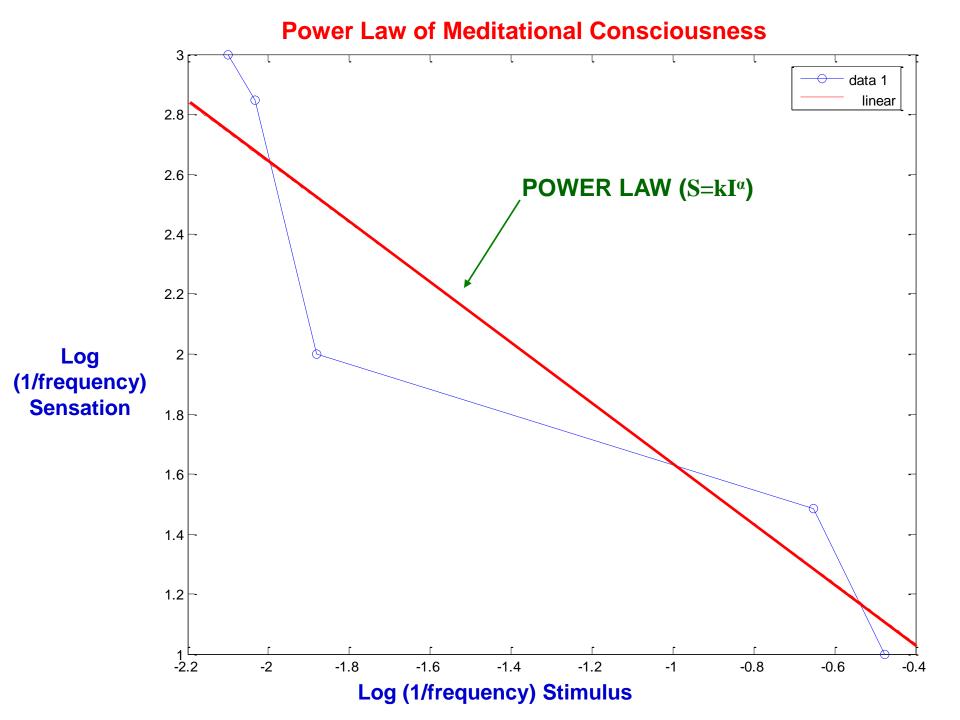
Regarding Prof. (Dr.) Prem Saran Satsangi
Table 1. Glossary showing correspondence between some system theoretic terms and their socio economic interpretation.

System theoretic terms	Interpretation in the context of economic system			
Components	Production sectors, supply and demand sectors, interregional transport mechanisms, intermarket transaction devices, exogenous demand sectors			
Terminals (vertices)	Market and submarket points, supply and demand pools (points)			
Complementary terminal variables				
Across variables or potentials	Unit price indices			
Through variables or flows	Flows of "commodities" valued in constant dollars			
Edges representing measurements of terminal variables	Prices and flows associated with production outputs, demands (total, intermediate, final, or exogenous), interregional trades, inter-market transactions, interregional transports			
Terminal equations	Behavioural relations for flows and prices for economically meaningful sectors and functional parts identified as discrete components of the system			
Circuit equations (Compatibility equations)	Price-cost equalities; accounting relations for prices			
Cut set equations (Continuity equations)	Flow identities or balance equations			
"Power" or dot product of across and through variables corresponding to an edge	Monetary flow in the particular stream to which the measurements of price and flow under consideration refer			

Diagrammatic Representation of Brain Apertures in the context of ultratranscendental referential points during meditational practice of "Surat Shabda Yoga" (i.e. Uniting Spirit-Current of meditationist with the Sound Current from the Ultimate Source of Consciousness)



(Revised) Dr. Vijai Kumar (25.05.2020) (Endorsed) Dr. V. Natarajan (17.08.2021)



# Power Law of Meditational Consciousness: Integrating Stimulus and Sensation

Lok	STIMULUS Frequency (f) Hz	SENSATION Sensation (from AHP*)	log(1/f) X-axis	Log (Sensation) Y-axis
Radhasoami	126 Hz	1000	-2.100	3
Sat Lok	108 Hz	700	-2.033	2.848
Sunna	76 Hz	100	-1.881	2
Sahasdal Kamal	4.5 Hz	30	-0.653	1.484
VI Chakra	3 Hz	10	-0.477	1

<sup>\*</sup>Analytic Hierarchy Process (AHP), a Consensus Building Technique Surveying of Practitioners of Ultra Transcendental Meditation (Deepest Meditation Technique evolved among Eastern Saints of Radhasoami Faith in their Bicentennial Year of Celebrations)

## **EXPERIENTIAL SIMULATION**

(Audio Clip): March 9, 2012

ORIGINAL WORD (MOOL NAM): RADHASOAMI (UNIVERSAL PASSWORD)

FIVE MYSTIC WORDS OF	HIGHER REGIONS AND	ACCOMPANYING ANAHAD NAD
JYOTI - NIRANJAN	SAHASDAL KAMAL	BELL AND CONCH
OM (AUM)	TRIKUTI	DRUM, THUNDER
RARANG	SUNNA	STRING INSTRUMENT – KINGARI, SARANGI, SITAR, VEENA
SOHANG	BHANWAR GUFA	FLUTE
SAT	SAT LOK ANAMI LOK	SNAKE CHARMER'S LUTE
RADHASOAMI	ALAKH AGAM RADHASOAMI (NIJ-DHAM)	UNIDENTIFIED MELODIOUS RUN-JHUN SUPERPOSED WITH BEE-HUMMING

Base-location of all human beings is their mid-eye centre (internally).





# Human To Superhuman



perman does not fly around in blue leotards and a red cape. This superman is one of us and is in the process of evolving into a compassionate, humble, universal being - the outcome of being nurtured in a spiritual atmosphere.

The Agra-based Radhasoami Satsang, Dayalbagh, in January 2017 launched a project called 'Superman Evolutionary Scheme of Satsang' in which, children in the age group of three weeks to three years, accompanied by a parent will attend all spiritual activities of the faith, including early morning and evening satsangs and seva, service, in the fields. Over a period of time, their cognitive skills and brain development will be mapped to study the impact of all this on their growth. It is believed that one who grows up in a spiritually-charged atmosphere has greater chances of reaching the ideal in every way possible: physically, emotionally, intellectually, socially, and spiritually; in short, he can turn into a superman.

around since the times of Aristotle, Socrates and Plato. Aristotle's Superman, or the Great-Souled Man does not expose himself needlessly to danger, since he cares about few things only. However, he is willing, in times of great crises, to even give up his life, if he knows that under certain conditions, it is not worthwhile to live. His disposition is to do service,

though he is reluctant to have service done to him. To confer kindness is a mark of superiority; to receive is a mark of subordination. However, some scholars see hints of egotism in what Aristotle professes. In contrast, the 'Superman' of Day-

albagh is expected to be extremely humble, inspired by the spirit of mercy and service, but he would gain strength to serve by praying to the Lord. This humility is in stark contrast to Aristotle's superman.

**OF SPIRIT** 

Children who are brought to the satsang at 4.30 am are all groggy-eyed, but by the time they reach the fields at 5.30 am, they are wide awake and chirpy. Some mothers feel that the crisp morning air is recharging them. While The term 'superman' has been their parents are busy with the farm-

ing activity of the day - it could be weeding, harvesting potatoes and onions or feeding cattle - their little babies in prams would witness and perhaps absorb what is going on Toddlers can be seen waddling on the uneven ground. The two hours they spend in satsang activities includes their receiving milk, fruits and blessings from the

spiritual master.

Says S D Singh, convener of the scheme, "During preschool and early childhood years, children typically act with experienced faith. For the most part, children respond to actions of parents and other adults, while learning to initiate actions. They explore, ob-

serve, experience and react. It's a good time to teach them values and life skills."

According to Prof P S Satsangi, system scientist and spiritual head of Radhasoamis, Dayalbagh, "Superman is not selection-based, but is evolutionary and is open to all. It is not limited to small children in the age group of three months to three years only. Even adults and elderly people are involved and contribute towards it. Your religion does not matter. Everyone who promotes the cause of better

worldliness is included in it. Everyone is moving towards better consciousness and will come to know of things on one's own. While pursuing their own religion, everyone will move towards more consciousness and ultimately omni-consciousness. Dayalbagh has only expanded the target group now to reach out to children at an even younger stage, but all those who have already been part of it, including elderly people, are still involved in enhancing their 'Consciousness Worthiness.'

German philosopher Friedrich Nietzsche describes his ubermensch or superman as the ideal superior man of the future who would rise above conventional Christian morality to create and establish his own values, for the enhancement of humanity. Radhasoamis adopt a new method of devotion and adherence to the values of the community to evolve supermen by environmental effects, rather than Nietzsche's 'overman' method, which has an overpowering undertone.

Explaining the concept in layman terms, Neelam Sharma, retired school teacher, says, "When the child grows up in a spiritually charged environment, it learns about love, integrity, trust, compassion, service and leadership. Since the setting is informal, nonimposing, and the child is among familiar faces, there is no stress. The child's personality will naturally become spiritually inclined without being 'taught' about spirituality." Two-and-a-halfyear-old Yukti's father Ajay says ever since his daughter enlisted for the project, her sleep and eating habits have become regulated.

Prem Prashant, physicist and senior official in the Radhasoami Satsang Sabha, the apex administrative body of Dayalbagh, referring to the work of Bruce H Lipton, a stem cell biologist, says that recent scientific research has confirmed the effect of environment on genetic modifications. "Behaviour is determined by genes, but it is equally true that behaviour modifies the genes. The Superman experiment at Dayalbagh is in line with Lipton's theory," he says. Perhaps, the Radhasoami project will one day lead Homo sapiens to evolve into 'Homo spiritualis'.

Post your comments at speakingtree.in

### Sigma Six Q & V: Making Sustainability a Way of Life

- Models the Dayalbagh Way of Life as Six Qualities & Values for a Sustainable Future
- The Qualities & Values interact amongst themselves and the cumulative effect is many times more than their individual effect

#### The Six Qualities & Values

- Innovation
- Air Quality
- Water Quality
- Education and Healthcare
- Agriculture and Dairying
- Values

# Sigma Six Q &

#### Sigma Six Q & V Trade Mark

- a multi-class trademark application filed in the Trademarks Registry in 2018
- the mark was advertised in the Trade Marks Journal No. 1885 in Jan 2019
- the trademark is expected to be registered by May/ June 2019

#### Key milestones

- model expounded to a global audience on 06.07.2014
- published in Prem Pracharak on 04.08.2014 and in DB Herald on 21.06.2016
- posts detailing the model and associated cases being published in Sigma Six Q & V blog from 17.04.2017 onwards
- assigned the copyright and trademark with goodwill to DEI on 05.04.2018

#### Sigma Six Q & V product ideas/ innovations

- Patent applied: Multiple land-use sun tracking structure for accommodating solar panels
- 19 Sun tracking stands delivering 200 kWp being set up for Dayalbagh Dairy
- research on solar and agriculture dual cropping
- research on solar powered value chain machinery for agriculture and dairy farming

# $\Sigma A^* \Sigma \Sigma 6 Q \& V's$

Attribute: \* Mobile-Smart-Resilient

 $(M-S-R) - 477 \pm 1$ 

Max Planck - 10<sup>-35</sup> meter

# **Waterloo Watfor Compiler**

Developed by UG students in Computer Science (Faculty of Mathematics)

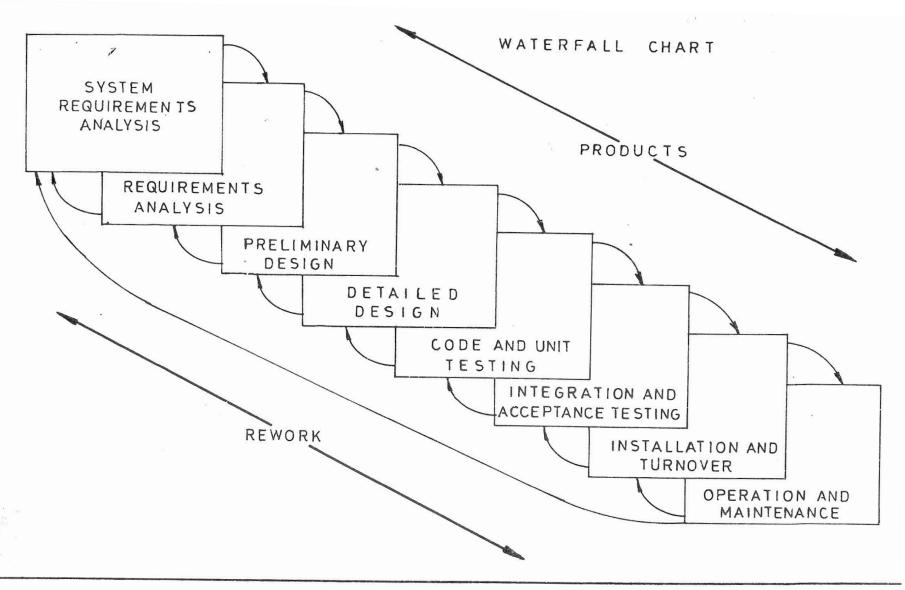


FIG. 1.1 SOFTWARE ENGINEERING LIFE - CYCLE MODEL

### **Dr Budd Hall:**



#### Community Based Research

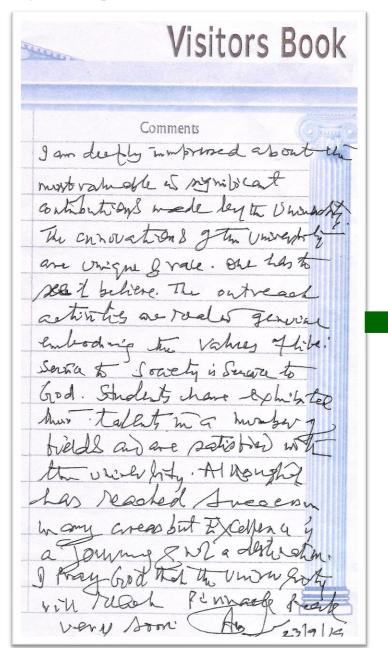


UNESCO Co-Chair on Community-based Research & Social Responsibility in Higher Education, Professor Emeritus, University of Victoria, Canada

### In the spirit of Gandhi-Ji: Thoughts on Higher Education September 29, 2019

- Of the many stories of higher education innovation that were presented, the story of Dayalbagh Educational Institution, provided the most complete example of a contemporary higher education institution incorporating practices that could be said to reflect Gandhian principles. Dr. Anand Mohan, the Registrar of Dayalbagh made the presentation to the conference. I was reminded of the visit that they had made to Agra for a field visit to Dayalbagh in April of 2015. What was fascinating is that Dayalbagh Educational Institute was founded in the early 20<sup>th</sup> Century by followers of the Radhaswami faith, many years before Gandhi's own ideas on education were to be articulated and practiced.
- The goals of Dayalbagh are to reach the least, the last, the lowest and the lost. This corresponds well with the Gandhian concept of Antyodaya, or service to the last or lowest person. Fees are kept low so young people of little means may attend. They have a system of education from Primary through University. Mental and Manual labour are united with all students taking a role in farming, cleaning, and making practical items. Respect for manual labour is combined with the newest technological approaches to the running of the school. Solar power provide all the electrical needs. They grow the food that they eat. Solar generated steam heat cooks the food. Students are treated the same without reference to caste or class. I have never seen such a complete integration between core functions of teaching and research in a university with society around it. This university truly practices the core principle of engaged teaching and scholarship in its fullest manner.
- The practice of Nai Talim by Mahatma Gandhi emphasised several of these principles of learning and doing,
  of teaching and service, of expertise for larger service to society. Dayalbahg's spiritual moorings have
  given it the inspiration and an institutional ethos that integration of theory and practice in everyday life.
  What I saw four years ago in Agra is still unique in this respect.
- Our conclusion after several days of conversation is that indeed Gandhi's ideas can provide important philosophical grounding for our contemporary concerns with community-university engagement and the social responsibility of education for the common good. And further we have evidence of many smaller innovations already in place around the world and at least one institution, Dayalbagh, shows us how total institutional transformation is possible. Its spiritual and normative foundations are strong for sustainability.

# Prof. A.P. Padhi's Remarks in Visitor's Book of Dayalbagh Educational Institute (Deemed University) dt. 23.09.2019



I am deeply impressed about the most valuable and significant contributions made by the University. The innovations of the University are unique and rare. One has to see to believe. The outreach activities are real and genuine embodying the values of life. Service to Society is Service to God. Students have exhibited their talents in a number of fields and are satisfied with the University. Although it has reached success in many areas but Excellence is a journey and not a destination. I pray God that the University will reach Pinnacle Peak very soon.

> sd/-Prof. A.P. Padhi 23/09/2019

# T (Non Statutory Body) Serving as Think Tank for D.E.I. (Vide its notes As Prepared By Chairman, Secretary & Convener) Education and High Impact Factor

(With active collaboration from

President, Director, Registrar, Treasurer, Comptroller and "IoT" – 4.5G: T.A. to Emeritus Chairman ACE)

Education must contribute to the development of physical, mental and spiritual aspects of a student for holistic development, balanced thought processes with respect for all in all the dimensions like caste, gender, religions & beliefs. Today institutions and universities are focussing on teaching-learning, research, societal development, environmental issues and sustainability, innovation, entrepreneurship/ start-ups, and A Q & Vs (Attributes, Qualities & Values). Invoking Mathematically Abstract Topological Graph Theory Founded on ASHBY's Law of Requisite Variety.

The best way to examine the performance of an Institute/University is to determine its output, outcome and the assessment of its impact on its stakeholders. It is crucial that the 360-degree development of human capital can be ensured by critically evaluating the performance not only based on the output or outcome but also through the impact it leaves on society at large based on education received by individual and his or her contribution beyond self and family. Research publication and journal impact factor have always been a well-established methodology in place. But this only illustrates the impact of Individual papers, various journals, and researches being carried out by different institutions/Universities.

Taking motivation from the impact factor method of establishing credibility of individual researchers, research Journals and Institutions, an attempt has been made to establish the impact assessment of societal contributions and reforms carried out by institutions in local context, as well as its influence on mind-set of students graduating out of such institutions. Under such emerging scenario it becomes necessary and imperative to bring out alternate model of education system, which is well set to contribute towards the nation building process through creative and innovative mechanisms. Therefore, impact factor of such activities by the institutions which contribute to the core of education to bring about change in mind set, altering living styles and addressing the needs of local to global communities in professional and scientific manner.

# II

It should be noted that the established methodologies are in place for NGOs to determine impact of their activities, but here an attempt has been made to bring out process with an organised stepwise method to calculate impact factor of educational Institutes building capacity and capability in applying knowledge & skills to influence life of locals to global persons and generating possibilities of multiplying and scaling up thoughts and actions leading to alleviate pain and promote harmony, and love. It has been a well-known fact that Mahatma Gandhi and Martin Luther King succeeded in their freedom struggles through non-violence. Similarly, instead of creating arm race, war and other negative energy-based activities, the institute/university can be utilised as fountainhead of positive energy through generating knowledge and its corresponding action plan paving way for peace and permanent stability in life leading to love for each other. Universities can play a crucial role in minimising hatred and life-threatening supremacy with negative power. Significantly, the universities are places where one creates and generates ideas to live together in cooperative and community model habitat rather than in competitive fashion. Such education has far reaching impact on society at large instead of research publication impact, which is limited to millennium fraction, a very narrow part of community.

Indeed, one can look at UN millennium goals for society. It has been well accepted that these goals once achieved would change life of people around the globe.

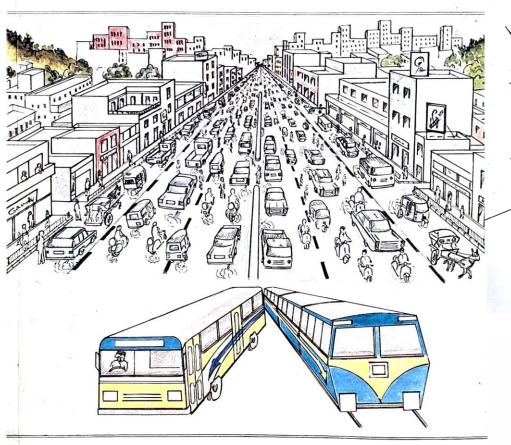
It is also the most important initiative to recognise realistically, at Education Policy level, for the Institute to include aspects of Education mentioned above. The Dayalbagh Educational Institute is fortunate to build itself on Unique Education Policy written and brought into realization by its Founder Director Revered Dr M.B. Lal Sahab and which has been in practice for the last 40 years after getting the status of Deemed to be University in 1981. The guiding principles of the education policy in DEI have been operational in one form or other in the Institute and its earlier constituent colleges for more than 100 years.

## My Interesting Anecdote of Summer of 1970

As of spring of 1970, my only acquaintance with transportation systems was in modelling the inter-regional transport component in my Ph.D. thesis as a specified interregional transport price driver, rather simplistically. In Summer 1970, I had returned to the University of Waterloo as a post-doctoral fellow for three months only for a joint research assignment with the Departments of Systems Design Engineering (Faculty of Engineering) and Man-Environment Studies (Faculty of Environmental Studies). Apart from wrapping up my PhD dissertation research in the form of relevant papers for publication and extending it somewhat further, this visit afforded me a unique opportunity to attend a short summer school at M.I.T. on Transportation Systems organized by highly competent experts in the field such as Professors Marvin L. Manheim and Professor A. Scheffor Lang from M.I.T. and a few others from M.I.T. and Harvard University. This gave me an excellent background on the challenge of transportation systems analysis, modelling transportation demand, modelling transportation technology and flow equilibrium in networks and set me wondering about the immense possibilities for using graph theoretic physical systems modelling for transportation system studies. I posed several questions to the instructors in the Summer School regarding such possibilities that arose in my mind but could elicit no definitive response from them. However, it gave me enough food for thought to embark on a continuing research investigation for exploring potentials and possibilities of a Physical System Theory Modelling Framework for Transportation System Studies which crystallized in the form of a research paper which I published in IEEE Transactions on Systems, Man and Cybernetics (Satsangi 1977). A few earlier researchers had applied a linear graph theoretic systems framework for the analysis of the transportation systems. However, one serious weakness of their models is the need to postulate a "nonmeasurable" or hypothetical "across" or "propensity" or "potential" variable. Thus their models can very well predict "through" or "flow" variables but they do not furnish any information on the vitally important level of service variables (representing service characteristics such as travel times, fares, comfort, safety, etc. experienced by a particular flow or set of flows). Also by far the vast majority of models in the transportation area do not address themselves to the problems of transient analysis, sensitivity analysis and optimal design. I, therefore, suggested in this paper a highly systematic and rigorous "physical system theory" construct for modelling large-scale transportation systems which would be free from some of the major weaknesses of the earlier systems models. A flow chart for physical system theory modelling methodology is given in figure 2 (Satsangi 1977) for potentially modelling real world transportation systems for the purposes of prediction, evaluation of alternatives and sensitivity and optimal design studies.

Over the years I produced at least eight PhDs in the transportation systems field.

#### REPORT OF THE STUDY GROUP ON ALTERNATIVE SYSTEMS OF URBAN TRANSPORT



GOVERNMENT OF INDIA FEBRUARY 1987

#### THE STUDY GROUP ON ALTERNATIVE SYSTEMS

OF

#### **URBAN TRANSPORT**

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Convener

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Prof. N. Rangarathan

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Resnama

R.C. Sharma Member

Vyay Kumar Dutt

Vijay Kumar Dutt Member

Prof. P.S. Satsangi Member

P.G. Valsangkar Member

having completed what has been a difficult and arduous task earnestly hopes that the recommendations of the Group receive the urgent attention of the Government of India, in order to improve the well-being of our people and the economic and orderly functioning of our cities.



# Consciousness

# Integrating Eastern and Western Perspectives

EMERITUS EDITORS
Prem Saran Satsangi
Stuart Hameroff

COORDINATING EDITOR Vishal Sahni PUBLICATION FACILITATOR Pami Dua

# **Consciousness**Integrating Eastern and Western Perspectives

This unique volume brings together eastern and western perspectives on consciousness with essays from philosophers and scientists which emphasize different aspects of the integration. The overarching aim of this book is to provide direction toward integrating Eastern philosophical and religious practice with philosophies and sciences of Western culture, an aim that could be pivotal in understanding consciousness and its place in nature. A unifying approach is adopted to the study of consciousness, integrating the wisdom of the sages of the east, and the scientists of the west and the stupendous east-west integration that has been achieved is indeed a milestone.

The book will appeal to the rapidly growing mass of scientists and students in this upcoming field, both in the east and the west, as well as the general inquisitive reader. Courses in consciousness studies are being promoted in leading Universities all over the world. It will also interest the followers and adherents of Eastern Philosophy of Saints and Radhasoami Faith numbering in a few millions around the globe.

#### Editors

REVERED PROF. PREM SARAN SATSANGI, Emeritus Editor (East) is Chairman, Advisory Committee on Education, Dayalbagh Educational Institutions, a think-tank, constituted to suggest inter-alia, steps necessary for achieving highest levels of excellence in education at all levels. He was acclaimed the Spiritual Leader, the eighth Sant Satguru, of Radhasoami Faith, Dayalbagh on May 18, 2003, through consensus, in a special general body meeting attended by about 25,000 representatives of Radhasoami Faith with a following estimated to be about a half of a million. A systems scientists firmly rooted in the integrative systems approach pioneered at Michigan State University and University of Waterloo, He has applied western scientific techniques to study the consciousness of the sages of the east. Revered Prof. Satsangi serves as the Emeritus Chair from the East of the Integrated East-West Forum at the TSC conferences.

PROF. STUART HAMEROFF, Emeritus Editor (West) is Director, Center for Consciousness Studies and Emeritus Professor for Anesthesiology at University of Arizona, Tucson, USA. He is the Chief-Architect and Chair of the TSC (The Science of Consciousness) series of conferences organized annually since 1994 all over the world. He has collaborated with Sir Roger Penrose in formulating the Penrose-Hameroff Orchestrated Objective Reduction (Orch-OR) model of consciousness, which is one of the leading scientific theories of the day. Prof. Hameroff serves as the Emeritus Chair from the West of the Integrated East-West Forum at the TSC conferences.

PROF. VISHAL SAHNI is Coordinator, Quantum-Nano Systems Centre and Centre for Consciousness Studies, Dayalbagh Educational Institute (Deemed University), Dayalbagh, Agra.

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#### Spirituality/Philosophy





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# **THANK YOU**