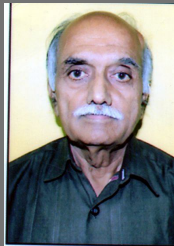


2015

Special Relativity with Einstein

By Er. D. B. Dhone

The Author has exercised hard on Relativity. He generated about more than fifty numbers of ingenious self explanatory figures discussing Relativity principles with reference to each. He has proved in this book; the relativistic phenomena, 'space contraction and time dilation' are apparent phenomena. With the help of Special Relativity, he has tried well a focus on mass-energy relation and gravity. He has claimed two modes of energy transmission by e.m.f. (1) field mode and (2) photon mode.



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**SPECIEL RELATIVITY WITH
EINSTEIN**

2015

By

ER. D. B. DHONE

This book 'Special Relativity with Einstein' is the outcome of individual efforts of the author towards perception of the Relativity. On the eve of "Relativity centenary", the author, declares his research works, in honor of the topmost scientist, EINSTEIN,

This month 29th December is *the punyadin* of my SriGuru, Jeer Swami Keshawacharya Maharaj. Above efforts are Dedicated to him.

**The book is dedicated to my wife late
Shrimati Sau. Kanta Dadarao Dhone;
She always believed in crystalclear Truth
All over.**

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PREFACE

In 1965, at my first year of engineering degree course, there was physics as one of the course subject. Then, though it was not in our syllabus, due to enthusiasm; I have studied, the chapter on, 'Relativity' present in the course book. At my electrical engineering final, at Govt. College of Engineering, Aurangabad in 1969, I have delivered non-academic voluntary seminar on 'Einstein's Special Relativity' with the due permission of the H.O.D. And, to my gladness, most of the teaching staff along with the H.O.D. Prof. Pandit were present to it. There that time I have stressed on the fact that, all inertial frames are equal in themselves and special relativity is something like a parallax in light. Hence, though some say that, special relativity is not real; we cannot neglect it. Because, all we work mathematically scientifically, that we see or observe; and, derive results based on it. With the help of relativity the real facts regarding space and time, we know from relativistic transformations. The seminar was really applauded by my teachers and friends-the students. That, moral energy kept me in touch with relativity always. Whenever, time permits, and information on relativity is available, it became a hobby to work on it.

The main cause which kept me always in touch with relativity is spiritual reason. In-fact, the spiritual objects and their behaviors, are very microscopic. Study of relativity, study of science based on basic particles also need microscopic view. Therefore, I had chosen my carrier in electrical engineering and voluntary self study of relativity to develop the sharpness of my mind and the intellect.

I was impressed spiritually very much by Einstein's statements that, 'something moving is energy', 'mass-energy transfer relation $E = mc^2$ and someone either Einstein himself or other one's statement that, an electron is nothing but, an 'energy store'; representing as a mass.

The relativity is the threshold between the spiritual world and the material world.

I have submitted two nos. of research papers on special relativity naming, 'Perception of Ultimate Speed, Paper-I' and, ".....Paper-II" to Current Science, Bangalore, National Physical Lab. New Delhi, Astro Physical Journal uChicago, America, .Astronomy and Astrology at Paris in France, during the period from 2002 to 2004. But, all of them wanted sophisticated experiments in that respect. But, myself being a Government servant, fully involved in works done Departmentally, and not affiliated to any capable research organization; remained unable in that respect.

Then collecting natural intuitions that,

- (1) The largest laboratory in the world is 'the human brain' that, every human being is having with him;
- (2) The intellect is the scientist in that lab;
- (3) Pure logic is the unique instrument for any experiment. And;
- (4) Observations around, and available reading material is the intellectual stuff that paves way through anything;

I **have** continued my work on relativity as and when time permitted me.

For, arriving to this mile stone, the greatest contribution is of my Grandfather, Late Shri. Tukaramaji Vikramaji Kadam Mali Patil Somathana, tq. Basamathnagar, who, dwelled me since my birth, taught me and gave the best moral thoughts, cared to percolate them into me.

The next one but, not least one than my grandfather, is my late wife, Sau. Kanta. She suffered a lot monetarily and mentally as well due to my unlimited time spending on my Govt. allotted works and research works without any fruitful gain; which would have been helpful to my family. It was one of her will that; I should complete my research work.

This book is dedicated to her very gladly from my deep heart.

My grandson Master Krushna Kamalkishor Jadhav; always cares for me, to solve my difficulties with computer. Looks after my food-timings and arranges fresh environment around me. My daughter Mrs. Kalpana Kamalkishor Jadhav, does all house work without any load on me. Similarly, my son-in-law Mr. Kamalkishore Anandrao Jadhav does all field works without any burdon on me. It is said that, one can stand in society, when he is honorable in his home. So, I am very much thankful to above trio from my deep heart.

I am very much grateful to my colleague friend Er. **Shri, Mohan Murlidhar Pandit**, who assisted to handle the office and erection works' site administration all in three shifts daily. Therefore only I could give some time for relativity along with allotted Govt. work. He always encouraged me, whenever I found depressed myself to continue the research work.

Er. Shri. Ramesh Babaso Patil, helped a lot in performing experiments in respect of relativity daily for months together after the Govt. allotted works hours. Hence, I am very much thankful to him. His manner of working and personal assistance was very encouraging me.

The contribution of above two colleague friends in Maha. Gov. Hydro Services, offered their valuable help in giving me their personnel time, after the Gov. allotted works and duty well in time; is very much appreciable.

Prof. Dr. Dongre at Department of Physics, Shivaji University Kolhapur, helped and encouraged me time to time during my stay at Warana Hydro-Electric Project Distt. Sangali during the period 1999 to 2005. I feel him as my Guardian. His personal care of me was so sensitive, that I can't never forget it. Then after my retirement at Feb. 2005, during my stay at Nanded, my home-city; Prof. Dr. Aundhkar H.O.D. of Astro-department at MGM college of Engineering, Nanded, had conveying the role of shri. Dongre Sir, in my respect. I remain always very grateful to both of them.

Mauli shri. Shivaji shinde rightly referred me to Shri Kalamse Sir, Retd. Principle of Science college Nanded. He accompanied me for some couple of days to discuss on my findings. Those discussions helped me for better explanations of the facts that I have noticed. I am very grateful to shri. Kalamse sir.

At the last but not the least, more over atop all; my lot of thanks goes to my spiritual Master Mauli Shri, Dr. Shiwaji Shinde; who cared my neurologically ill wife Kanta, his spiritual sister, by providing her high class medical aids, I.C.U. and other facilities at my home; for couples of years together without expectation of any enumeration. This book/paper write up is completed just in these three months. Maulee wanted it to complete it by me. He had followed up his perusal with me daily.

And all that is because of the blessings of Shri Guru Shriman Keshawacharya Jeer Swami, Mahant, Shri. Balaji Mandir, Gadipura, Nanded, at the last. **“Tasmaie Shree Guruve Namah”**.

Er. D. B. Dhone.
Author.

Mauli shri. Shivaji shinde rightly referred me to Shri Kalamse Sir, Retd. Principle of Science college Nanded. He accompanied me for some couple of days to discuss on my findings. Those discussions helped me for better explanations of the facts that I have noticed. I am very grateful to shri. Kalamse sir.

REQUEST

Author is confident about his findings noted in this book. The readers are requested to peruse this book with sharp attention. If some basic concepts will be found to have shaken; don't keep aside them. Please, try to to verify the facts by performing experiments. It is written very thoughtfully.. Since his engineering first in 1965, he has spent about 5000 hrs. with relativity to perceive it. When he was satisfied with himself, he put on to write on Relativity luckily in the year 2015 the centenary of Relativity by Einstein. Thank You.

Er. D. B. Dhone,
Author.

ABOUT AUTHOR

The author, Er. Dadarao Babarao Dhone of this original research work is now a retired Executive Engineer (E. & M., H. P., M. S. Mumbai). Since, 2005. He has contributed in erection, testing, commissioning, operation, maintenance; and, special repairs, and modifications, particularly solving technical and administrative bottle-necks, imparting training to the operating staff, at hydro power generating plants; and, Lift Irrigation Schemes of Govt. of Maharashtra. The author does not liked contract works. He always liked works to be done and completed departmentally; with the help of Departmental labors technicians guided and supervised by the Departmental junior officers. It was his experience that, the Departmental works at works' sites; always remained superior, were completed fully and within their scheduled time.

At every project, the author has paved wave through bottle necks. Hydro-project gathers speed after first embedment of its machinery part. Due to his full dedication to allotted works without caring for himself and completing the works by solving all technical, administrative as well social difficulties by himself not only in respect of his works but, any work belonging to the project. He never demanded any remuneration towards it. His colleagues counted about one billion rupees Govt. savings because of his works. He always thought whatever hurdles he crossed over, that was due to his academic collegian studies only. Therefore, he did not consider it something innovative. Hence, he never claimed extra than monthly pay.

He always believed in Departmental works, and the Departmental staff. He has seen that, Departmental works are quality works. They are completed within scheduled times. The only thing the Executive of the work has to do is, (1) workers should not be harassed for achieving the target; instead, (2) available workers should be arranged in shifts for allotted working time period; (3) Over time should be avoided the most possibly; (4) their needs are small enough and they can be satisfied from their rights allotted them by service rules. Hence, they

should be satisfied immediately. (5) Though they have not studied necessary technology from any academic institution; they have intellect. Once ‘the procedure and why this procedure only’; these facts are imparted to them along with tolerances; then believe them, they will complete that job better than our expectation. The supervisor should be confident enough that he had imparted the know-how correctly.

He never compared two or more projects with respect to each other. Every project has its own specifications and limitations. He always tried to hold the project near to its specifications and complete within theoretical allowable tolerances.

In technical field expertise does not depend on number of years spent in similar jobs; but, expertise depends on the perception of technical facts on which basis the project is designed and capability to construct the project within tolerances allowed by design of that project in the scheduled time. *There is no place for “chalata hai” and, “theoretical figures cannot be achieved practically”.*

At each and every project he has introduced modifications in the project works of R. & D. level very successfully.

Before completion of any aspect of the work; the author used to study the technical theory of that aspect. And accordingly used to complete the job. **They say theory doesn’t work in practical work. Practical work performance is different from theoretical. But, the author does never support this view and insisted job completion perfectly as per theoretical aspects. Perfect understanding of theory and then undoubted faith in theory; give confidence and capability to face a challenging work also. In a project; hindrances appear due to non care towards this aspect.**

When, one has grasped the theoretical aspects of any work technically perfectly; he can definitely do that work, even independently with confidence; without any previous experience.

The natural interest of the author was since beginning, from his primary school in getting understood the God. To develop sense of that level, study of microscopic existing material which can be sensed; should be done. That would enable to perceive the God. Therefore he started going to school. As he progressed to higher and higher class, he felt, electric engineering would be the most suitable branch in all respects. It would provide a sharp vision to view the universe and would provide livelihood also. At engineering when he came across Einstein's theory of relativity, he felt, that, relativity required very nano-scopic thinking to understand it. **Hence, relativity became his worship subject. Therefore he studied special relativity and applied exhaustive thinking to it. It enabled the author to write originally innovative on special relativity in this work. He believes that, most of the persons do not try to understand the huge capacities they have with them. Author opines that, everyone should keep afresh ready to accept any challenge and any responsibility at any time. Particularly well learned persons should possess this quality invariably.**

After his retirement from Govt. service at 1st March 2005, after a year he taught control and protection subject to production technology 3rd year students in 2006 on period-basis in SGGS college Nanded. Then after he offered 7 years of service at non-grant private re-known 'Gramin Polytechnic College Vishnupuri, Nanded' as a Lecturer in various Departments Electronics and Telecommunication, Computer Technology, Mechanical Engineering, Automobile Engineering, Electrical Engineering, instrumentation, Hotel Management to teach electrical varied subjects, involving electricity, electronics, computer basics, heat, refrigeration and cooling, He guided to M. Tech. Faculty-students at Gramin Polytechnic. The lectures were aimed to improve the knowledge of the students as well to enable them to score more marks. Little time period of lectures was utilized by myself to impart technical skills, based on my field works in Govt. service. Similarly, to promote morality always constantly, including sensible spiritual philosophy during some of the regular and extra, periods, about ten minutes were spent by us i.e. me and my students weekly without affecting the scheduled coarse-studies.

He believe in works so much so that, he feels, ***“The work is life; no work is death.”*** He never cared for over time remuneration. Similarly he never cared for short tour T. A. bills. Because of ‘red ribbon’ systems in offices it consumes lot of time for personnel follow up diverting works’ time; which the author feels very disgusting and unnecessary west of time in follow up actions.

The money can well give varied facilities for enjoying; but, not the satisfaction. The satisfaction rests in works’ performance as per their specifications and the scientific theories involved in it.

During this this book writing, I got much encouragement from Mauli Dr. Shri. Shivaji Shinde, Dr. Shri. Kalamse Sir, the retd. Principal of Science college Nanded. My daughter, Mrs. Kalpana, Son-in-Law Kamalkishor and Grand-Son, Mster Krushna and in addition the majour guidance of shri. Kalamse sir. I am very much thankful to them by heart.

Some dozen of projects can be based from the information in this book. Please be them conveyed to the author while performing the same and similar projects .

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ABSTRACT

This Paper/book deals with the Perception of events truly with the help of 'photon signals' released by the source and that are traveling in the free space at the ultimate speed. Also, it studies the information transfer by field-lines.

The basic facts at the root of Lorentzian relativistic transformations are discussed in this book/paper.

It is the fact that, the position of an event and its happening instant of time at its point; is same in the Universe with respect to all of the Observers attached to their inertial Frames moving with different relative motions with respect to each other and w.r.t. the source itself. The speed 'c' of the 'photon signals' coming from an event and measured by all the Observers is with respect to the source. Space 'contraction and time dilation' are phenomena like parallax in light. They are perceived due to perception by electro-magnetic phenomena where in limit of perception of speed is 'c' due to the space properties of electrical permittivity and the magnetic permeability. It is discussed in very detail in this work.

Length measured with the help of photon signal is electro-magnetic length and length measured by foot rule or by survey is mechanical length. Considering these two types of length measurement it is found that Newton's laws of motion are true universally at all speeds, even at speeds greater than 'c' also. As we consider different mechanical forces while applying them; likewise, when applying these rules in electro-magnetism, the nature of these forces and their behaves are to be accounted for.

Photons travel along their direction of motion mechanically, once they are ejected out from their source. The light photon speed is 'c' the ultimate speed w.r.t. its source as seen from any inertial frame. But, that w.r.t. any inertial frame attached to respective observer, it is equal to $(c^2 - v^2)^{1/2}$. It is not $(c + v)$ or $(c -$

v). It is due to particular type of photon ejection from its source affected by space permittivity and permeability inside an atom.

Photons traveling in free space have not any electric or magnetic field either applied to or generated by them. The space contraction and time dilation phenomena are observed due to light signal speed w.r.t. the source, it being 'c' and that w.r.t. observer's attached frame, it being equal to $(c^2 - v^2)^{1/2}$ as mentioned above. **The photon signal gives position of the source at its point, when the observer receives the signal, though it is a bit nearer. But, the signal gives the physical state of the source-body that was at the instant of time, the source-object has released the signal. Since beginning our all mathematics, so also, the scientific observations are dependent, upon whatever we see actually at the present instant. All inertial frames are equal in themselves. Therefore, the relativity is like a parallax phenomena in light. But, we are assuming true, the seen facts and involving in them. Thereby creating an illusive coating upon relativity principles.** The science aims at knowing the truth. The Lorentzian transformations enable us to find actual space dimensions of the source-object and its actual distance from us. **The relativity explains as author points it out; how most of the world remains unknown to us yet.**

This paper/book work explains the futility of the experiments 'airplane experiment and the cosmic ray experiment' to prove special relativity principles.

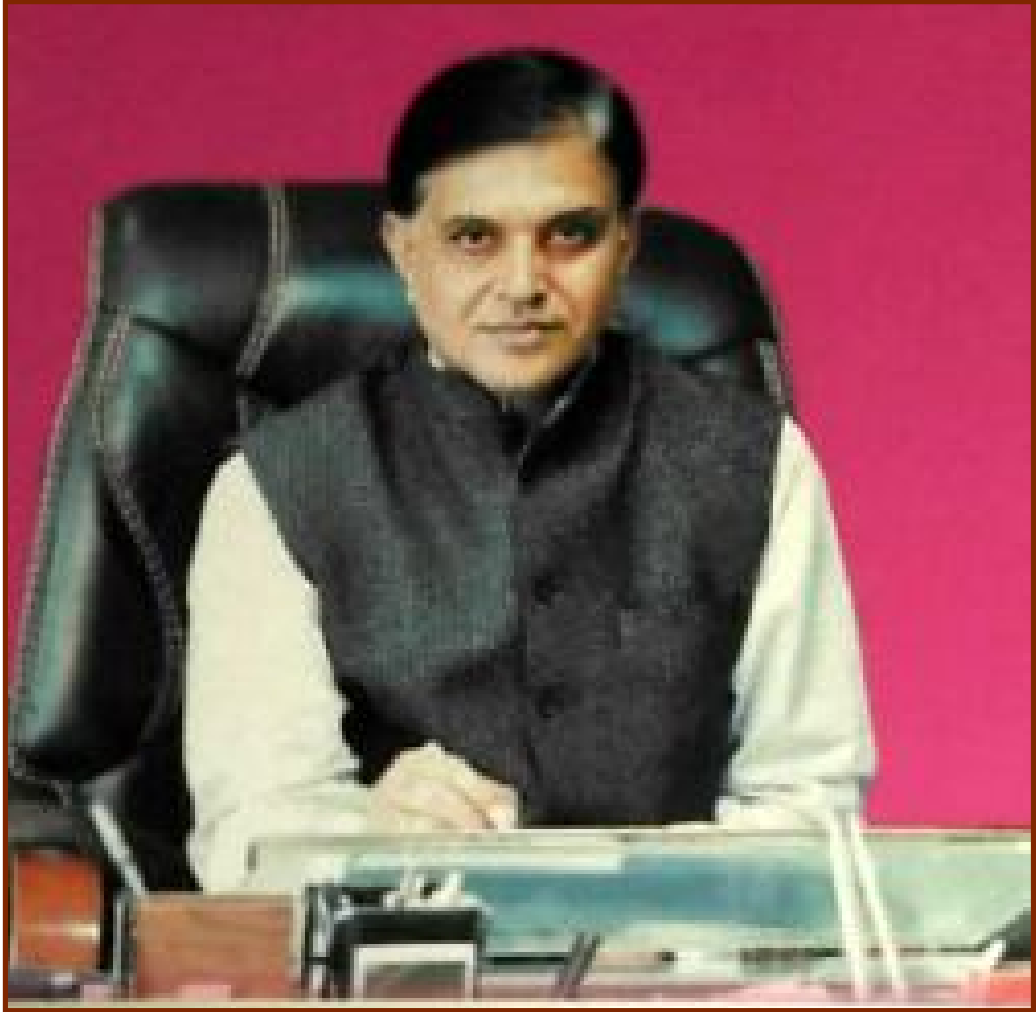
The author differentiates E.M. mode of transmission of energy in two different ways. (1) Photon mode and (2) field mode. Till now for all communication by the lowest frequency to the highest frequency the electro-magnetic way of energy transmission is assumed only one. But, the author differentiated it into two modes clearly explaining the difference between the two. **The field mode works up to micro-wave frequencies. From infra-red frequencies above photon mode works. The transition zone frequencies lie in upper portion of micro-waves. In field mode the signal travels instantaneously; where as in photon mode it travels at speed 'c'.** For stellar bodies thousands of light years away from us, the speed 'c' is very small. At that speed when we receive information of that far distant body; it is very doubtful whether that body is in

presence or not. Therefore, means should be developed to communicate information by field mode at far. **Field lens need to be developed.**

The author has tried mass-energy transformation relation with the help of special relativity by taking help from general relativity in the form of accelerated frame at the instants of energy conversion. Actually energy conversion takes place in accelerated frame only. *A change only can give another change*, seems the fact in universe. Author has developed concept of mechanical length and electro-magnetic length. Lengths in their rest frame can be measured mechanically directly by a measure tape or survey. But, lengths of moving bodies can only be measured by signaling. Electro-magnetic signaling system is universal. Much experimentation is involved, in this paper/book. Many projects need to be carried out. Out of those below ones. Following are the prime ones. (1) To develop 'field-mode photography'. In this clear picture be enabled to give minute details of the far object at present. Micro-wave Radio Photography is existed; but, on photon mode basic. (2) To perform E.M. communication wave speed measurement experiment by using wide range of complex frequencies. The block diagram is given in this book to prove infinite speed of communication e.m. waves up to micro-frequencies including it. (3) To repeat airplane experiment, as is mentioned herein to prove special relativity principles. (4) To check, the relation between the speed of far stellar body and its gravity w.r.t. an observer.

Er. D. B. Dhone,
Author.

Note:-The word 'quanta' used for a packet of an energy in the form of a group of frequencies or a fundamental eternal mass particle or its group; must be understood as per each of its context. It is very perceiving to express to explain by the use of these words. Relativity is basic physical study of perceiving the world. It doesn't account for 'persistence of vision' in its fundamental basic study. To perceive better the relativity principles, due basic studies of electrical, electronics, kinetics, mechanical, particle physics, fluid mechanics, astro-science and mathematics is must. Anyone may wonder if I say, ShriMadbhagwadGeeta if be studied, with scientific mind, gives a peer vision to grasp the Relativity. It will avoid illusions and will help to know the facts. This book tells what was in the mind of Einstein about Relativity. Relativity tells, what we observe; but, what is true and finds out the way to arrive to the truth.



Dr. Vijay Pawar
Gramin Shikshan Prasarak Mandal's
Gramin Polytechnic, Nanded



**The Author, Dadarao Dhone, briefing his book,
“The Special Relativity With Einstein”2015
to,
Dr.Udhav V. Bhosle, Vice Chancellor
Swami Ramanand Teerth Marathwada University
Nanded**



**The Author, Dadarao Dhone, briefing his book,
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Dr. Vijay Bhatkar,
Architect of PARAM series of Supercomputers and Relativity Scientist.**

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