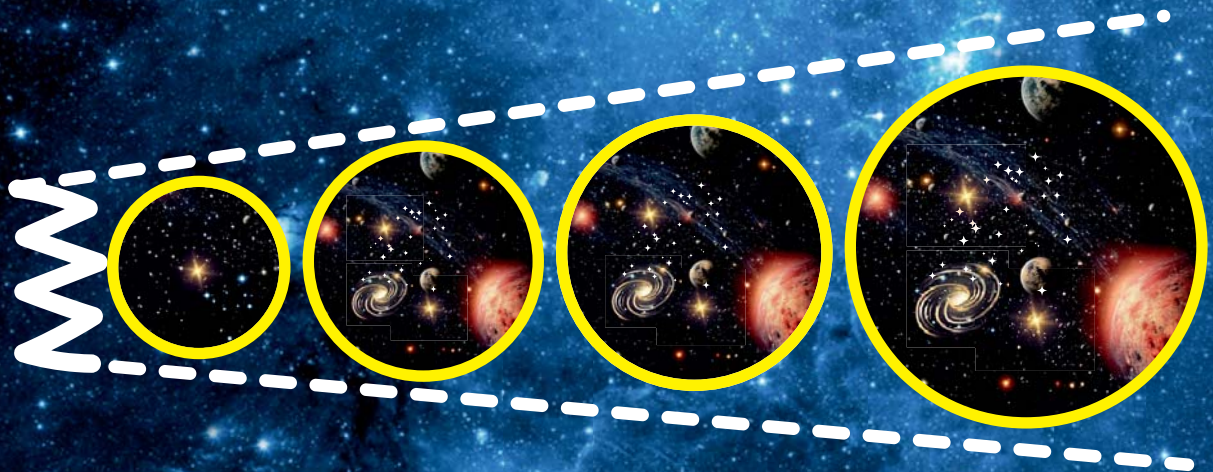


“NATURAL UNIVERSE EXPANSION” (NUE)

The Revolutionary Theory That Challenges Hubble’s Law.

**Presenting A New Model Of
The “LIVING ORGANIC UNIVERSE” And Its Dynamics.**



**An outcome of over 25 years of Research Study by the
Scientists at the Astrogenesis Research Foundation**



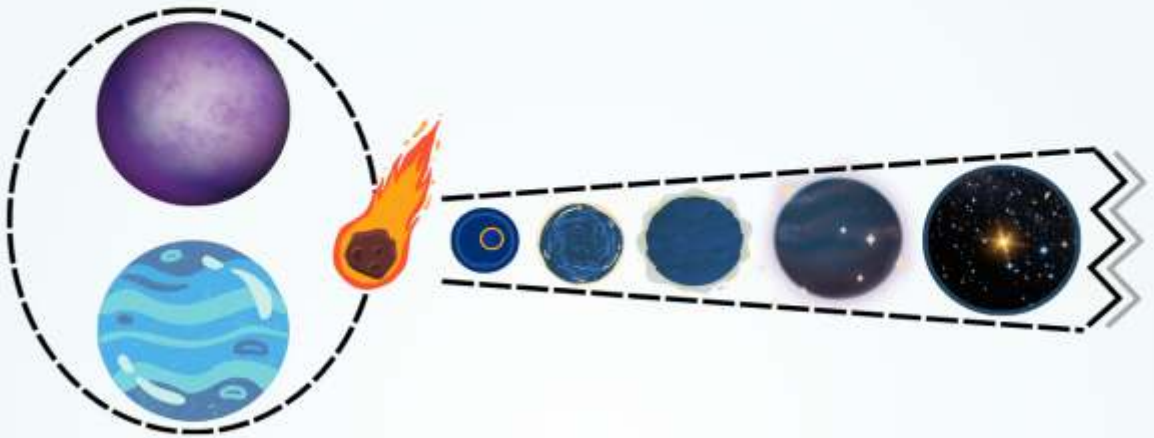
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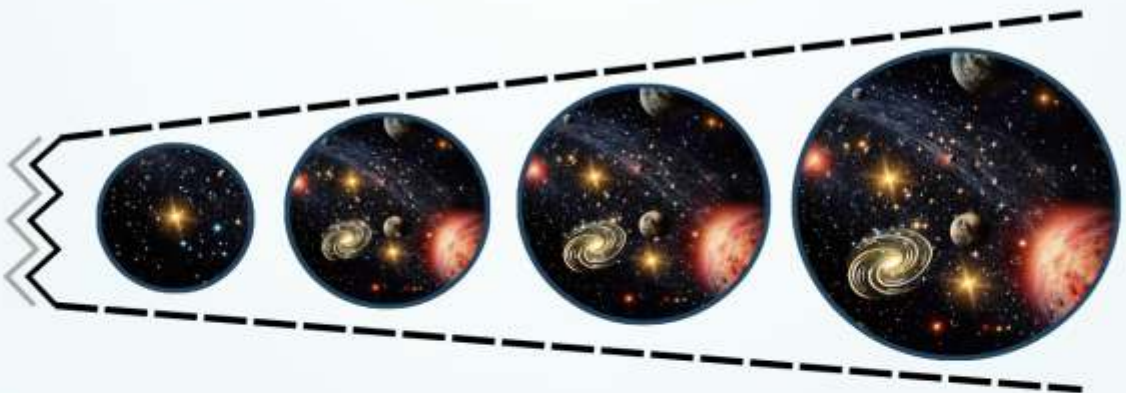
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25 years of Research Study by the
Scientists at the Astrogenesis Research Foundation**

**Pre-natal embryo formation
where no Laws are applicable**



**Post-natal birth of the Universe and
its Organic growth**



NB: The pre-natal, post-natal birth and growth of the Universe or new Celestial Bodies, is graphically explained in Chapter 8 para 8-d page 170.

The author's views and an advisory to the readers and intellectuals.

I present this new theory on the Natural Universe Expansion (NUE) with immense passion and a deep sense of responsibility. This work is the result of decades of inquiry, reflection, and a desire to push the boundaries of our understanding of the Cosmos.

Hubble's law presented in 1929 by Edwin Hubble and their team, helped establish that the Universe was expanding, with a graph showing the distance of viewing a Star or a Galaxy being directly proportional to their recession velocity. It also showed singularity at an epoch point in time. But it suffered a big flaw due to its finding a fixed age of the Universe not linked to the time factor.

The Theory of "Natural Universe Expansion" (NUE), overcomes the flaws and removes the need for a hypothesised dark matter and dark energy to explain the Universe's expansion. An updated Hubble constant incorporating the time factor is the Nu Constant, derived from the NUE Law.

The Theory challenges existing paradigms and inspires new research that brings us closer to unlocking the Universe's most profound mysteries. The NUE theory can be further explored by researchers, scientists, and scholars in space research, cosmology, and astronomy. Together, let us continue the journey toward evolving greater depths in knowledge, guided by curiosity and the infinite potential of the unknown.

Baldevkrishan Sharma

Author, Researcher & Scientist

I dedicate this research work to...

To the research institutions around the world that continue to inspire with their innovation and passion for uncovering the mysteries of the Cosmos, may this theory spark new avenues of inquiry and deepen our collective grasp with the presentation of the new Universe Model, viz the LIVING ORGANIC UNIVERSE MODEL, inspired by the NUE Law.

I dedicate this work to the brilliant minds and tireless pioneers in space research, cosmology, and astronomy, whose relentless pursuit of knowledge has expanded the boundaries of human understanding.

I recommend Cosmo research Scientists from NASA, ISRO, ESA and other Astrophysics and Astronomy Institutions to take a note of the tremendous effort and time dedicated to present this groundbreaking NUE Theory, its applications and its impact.

Baldevkrishan Sharma

Author, Researcher & Scientist

Author's declaration :-

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Acknowledgements :-

To my esteemed readers,

I extend my heartfelt gratitude to each of you for embarking on this intellectual journey alongside me. Your curiosity, passion, and dedication to understanding the Cosmos are the very forces that propel scientific discovery forward.

The theory of Natural Universe Expansion (NUE) is not just the culmination of my own efforts, but a tribute to the collective work of countless researchers, institutions, and visionaries in Space research, Cosmology, and Astronomy. Your unwavering pursuit of knowledge is both an inspiration and a reminder of the boundless potential we hold to deepen our grasp of the Universe.

I am honored to contribute to this shared quest, and I hope this work sparks new ideas, insights, and collaborations for all those dedicated to unraveling the mysteries of the Cosmos.

I thank my assistant, Nikhil N. Belnekar, for supporting me technically in compiling this book on an 'out-of-box' but highly creative research work.

I acknowledge my family and friends, who supported and encouraged me throughout this endeavour. Their belief in me kept me going, even during the most challenging moments.

I would like to thank my printer for their exceptional craftsmanship and dedication in bringing this book to life. Their attention to detail and commitment to quality have ensured that every page reflects the essence of my work. Handling the printing process smoothly would not have been possible without their expertise and professionalism. I am genuinely grateful for their invaluable contribution.

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FOREWORD by:



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Baldevkrishan Sharma, as I know him, is a researcher and scientist with patents to his credit and a Rashtrapati Awardee. He is also a successful Entrepreneur and philanthropist who supports several social causes, including encouraging and promoting innovations from technology Institutions, Startups, and others by Awarding and Rewarding them.

He has authored two books: the first is WHO ARE WE? WHAT FOR? The second is Unmasking the Hidden Fate of Carbon Emissions, which is the²great discovery of its recycling process.

The Natural Universe Expansion (NUE) is his third book, a Revolutionary Theory Presenting a New Model of the Universe's Dynamics and Impact. It is based on Hubble's Law, which has its fundamental flaw in the fixed age of the Universe, pegged at 13.86 bn years.

When considering a dynamic living Universe, its age cannot be fixed, which contrasts Hubble's Law. For example, under Hubble's Law, the age of the Universe would reflect the same 13.86 billion years, whether calculated two billion years ago or two billion years in the future.

To overcome this shortcoming, a new theory of Natural Universe Expansion (NUE) is introduced, which adds the dimension of a continuous compounding rate of expansion of the Universe with an element of timescale.

With this addition, the author could theoretically and practically redefine the age of the Universe on a mathematical scale. It also presents the size of the Celestial bodies in the past and the future. It resolves whether the Solar and Lunar eclipses will not occur in the distant future or are perpetual. According to the author, the NUE Law also supersedes the Tectonic Plates Theory.

Hitherto, the Universe is inferred from the observations and interpretations of data and images collected from Earth-based telescopes, the James Webb Space Telescope (JWST), and spectrographic analyses for measuring blue shift, red shift, and other elements in the Universe. We also depend upon the Doppler effect, gravitational lensing techniques, Newton's law of gravitation, Einstein's general and special relativity, dark matter, and dark energy concepts. Distances are measured using parallax, standard candles, cepheid variables, speed of light and its transit time. Etc.

All these findings are good enough for proximate measurements of celestial bodies and their motions, tilts, etc. The inferences are drawn using scientific laws and logical interpretations to determine a particular model. However, there is no finding of how the Universe got so populated with billions of Galaxies, each having billions of Stars. Thus, there should be a reference point to compare and know what all the Celestial bodies are and what their motions are performing and achieving.

The NUE Model links humans as an integral element of the Universe, and therefore, it develops a reference point for the behaviour and activities of a Living Organic Universe. Technical analyses of humans and their behaviour are a reference point for various activities happening in the Universe.

Thus, according to the author, the research resolves most of the ambiguities and flaws of the Big Bang theory, the Steady State Theory, dark matter, dark energy, and others by introducing the Living Organic Universe (LOU) Model and the NUE Law.



Dr. Ajit Kumar

About the author and his research work:



Baldevkrishan Sharma

*Chairman, Lead Scientist & author,
Astrogenesis Research Foundation*

He is a talented innovator, inventor, and entrepreneur with a nationally acclaimed, successful, reputed retail brand.

During his college days, he presented his inventions. He won the first Prize for his patented device, STD Control Device, for which he also won the Rashtrapati Science Award. His brief biography is covered in Section A of his maiden published book titled: "Who Are We? & What For?". (available for free reading on the website: www.arf-research.com)

Baldevkrishan Sharma has authored an intriguing and Thought-Provoking new research work titled "Natural Universe Expansion (NUE): A Revolutionary Theory, presenting a new Model of the Universe-dynamics and its Impact."

Here, the author deals with NUE Theory's Vision and a Radical Approach to Universal Expansion. The NUE Law incorporates the element of time, which is missing in Hubble's law and thus accounts for its basic flaw. The NUE Law overcomes the shortcomings of Hubble's Law and has its Nu constant.

The NUE Law not only deals with the Universe's expansion in deep space but also with the Solar System, including the Earth-Moon System. It also deals with all-natural matters connected to the Universe, from an atom to wavelengths, etc. The NUE Law also reviews the Tectonic Plate Theory and proves how the NUE Law supersedes it.

Hubble's Law and the Big Bang Theory influence the widely accepted Universe Model. It covers most of their flaws and ambiguities and presents an alternative theory, "The Living Organic Universe Model." The NUE Universe Model is mathematically and scientifically authenticated and explained in detail with examples, tables, graphs, and calculations.

The author's recent research publication, " Unmaking the Hidden Fate of

Carbon Emissions and the Great Discovery of its Recycling Process,” would be an eye-opener and an out-of-the-box research that would be of great interest to the Scientists engaged in researching Earth Sciences, Global warming, causes for colossal forest fires and its solution. The research will also greatly help NGOs like Greenpeace, environmentalists, NGOs for environment protection, nature & ecology conservationists, COP-28 and others.

The author's study on the creation of 'Fortified Oxygen' and its power to deliver energy to sustain energy levels like that of humans, to undertake high energy consuming activities such as running, jogging, workouts in the gym., climbing, trekking, sports like athletics, sprinting, playing basketball, tennis, hockey, football, cricket, cycling, boxing, weight lifting, high jumps, long jumps, swimming, etc. Carnivorous animals need high energy to chase their prey and kill them for food. Cheetah runs at 120 kmph, and elephants support their vast body weight.

The author could also establish the causes of violent human deaths, fatal accidents, and grievous injuries. Since the reason or the cause is known, a possible solution to control and manage fatal human deaths and grievous injuries is suggested.

The author also could analyse the reasons for global warming, where carbon emissions such as GHG (Green House Gas) are understood to play an important role. In contrast, the research holds out other possible reasons hitherto ignored when evaluating global warming and climate change. All these are shared in this research paper presented in the book. *(available for free reading on the website: www.arf-research.com).*

Regarding his above-referred published book, Who Are We? What For?? The author has dealt with the laws of the Universe, i.e., the laws of gravitation, space, and science, which also apply to humans. Since humans are created from the Earth elements, it is also an integral part of the Earth System. The Earth is an essential and integral part of the Solar system and, consequently, an integral part of the Universe. The depth and size of the Universe are too huge and vast to comprehend with the present human-evolved knowledge.

Instead of searching into the vast unknown realms of infinite space and the Universe, it could also be understood via the study of humans, the tech deployed in their creation, the laws of nature influencing human activities and the hidden purpose of their activities. Section B of the above-referred book WHOARE WE? explores the Universe via humans.

Preface

"A Critical Examination of Hubble's Law and Its Limitations" provides a comprehensive analysis of Hubble's Law and introduces the Law of Natural Universal Expansion (NUE) as a solution to its flaws.

Hubble's Law, proposed in 1929, became a cornerstone for understanding the expanding Universe and measuring its age through the Hubble Constant (H_0). However, over time, measurements of H_0 have varied significantly, ranging from 500 km/s/Mpc to the current NASA-accepted 70 km/s/Mpc, raising doubts about the reliability of distance and recession velocity measurements of targeted Celestial bodies (Star, Galaxies etc.).

The research analyses the limitations of various techniques for determining H_0 values, including the Doppler effect, brightness methods, and the use of red giant stars and gravitational waves. Additionally, it highlights that Hubble's Law fails to account for the accelerated expansion observed in distant galaxies, suggesting the need for non-linear factors, which are currently unexplained by concepts like dark energy, dark matter, and dark radiation.

Another significant flaw is determining the Universe's fixed age, which is incorrect for the dynamic ageing Universe. The research introduces the NUE Law as a mathematical framework to resolve these inconsistencies.

The NUE Law offers a non-linear equation for cosmic expansion. It modifies the Hubble constant and introduces the Nu constant for more accurate measurements of Celestial distances and their recessional velocities.

Unlike Hubble's Law, which is limited to linear recession velocities, the NUE Law accounts for the continuous, exponential expansion of the Universe, maintaining stable ratios for fundamental Cosmic properties such as temperature and density.

The ARF research presents the NUE Law as a Universal model applicable to all scales of matter, from Galaxies to the Solar system to the Earth to atoms and wavelengths.

Furthermore, the NUE Law challenges the necessity of dark energy to explain Cosmic acceleration. Instead, it proposes that the Universe expands at a continuously compounding rate, which naturally explains the observed acceleration of the recessional velocities without invoking hypothetical forces

and such other assumptions. The NUE Law suggests that as the Universe expands, it maintains stable ratios, allowing Celestial bodies to expand in size and mass over time, maintaining their constant density and temperature.

A key distinction between Hubble's and NUE's laws is in their constants. While the Hubble constant (70 km/s/Mpc) is static, the Nu constant (98.2889 km/s/Mpc) is dynamic and changes over time, suggesting that the Universe is not static but continuously expanding at an accelerating rate. This difference offers a new approach to calculating the age of the Universe and predicting its future expansion.

The research also explains how the NUE Law applies to natural bodies like the Earth, Moon, and Sun. For instance, the Moon was once much closer to Earth but has since receded due to the expansion of space. Despite this expansion, the ratios of celestial body sizes and distances remain constant, ensuring that natural events like solar and lunar eclipses will continue in perpetuity. The law also explains the increase in mass and gravitational influence of Celestial bodies as they expand.

In summary, the research presents the NUE Law as a more comprehensive and accurate model for understanding the Universe's expansion. It addresses the shortcomings of Hubble's Law and challenges the reliance on dark energy concepts. It positions the NUE Law as a practical alternative to current Cosmological models, offering a more dynamic view of the Universe's continuous and intrinsic expansion.

The NUE Law for Universe expansion helps supersede the Tectonic Plate Theory, as in Chapter 9, and develop the Living Organic Universe Model, referring to its human connection. It provides a more practical approach to resolving the flaws and shortcomings of the Big Bang, Steady State, and other theories of the Universe.

Natural Universe Expansion (NUE): A Revolutionary Theory, presenting a new Model of Universe-Dynamics and its Impact

Synopsis:

An intriguing and thought-provoking new research work is titled "Natural Universe Expansion (NUE): A Revolutionary Theory, presenting a new Model of Universe-Dynamics and its Impact."

The NUE Theory's Vision and a Radical Approach to Universe Expansion incorporates the element of time, which is missing in Hubble's law and accounts for its fundamental flaw. The NUE Law overcomes the shortcomings of Hubble's Law by adding the dimension of time and the continuous rate of Universe expansion to it. The Nu constant is derived from the NUE Law.

The NUE Law deals with the Universe's expansion in deep space including all celestial bodies in our neighbourhood, such as the solar system, planets, and the Sun-Earth-Moon System. It also deals with all-natural matters connected to the Universe, from an atom to wavelengths, etc. It also reviews the Tectonic Plate Theory in CHAPTER 9 and proves how the NUE Law supersedes it. (see CHAPTER-9)

Hubble's Law and the Big Bang Theory influence the widely accepted Universe Model. This research study covers its flaws and ambiguities and presents an alternative theory, **"The Living Organic Universe (LOU) Model."**

The LOU Model is inspired by the Human-Universe identity. It is mathematically and scientifically authenticated and explained in detail with examples, tables, graphs, and calculations. (see CHAPTER-2, 3, 4 & 5)

Objective of the research work:

"Natural Universe Expansion (NUE): A Revolutionary Theory, presenting a new Model of Universe-Dynamics and its Impact."

Hubble's Law, presenting the fixed age of the Universe as 13.86 bn years, is its fundamental flaw and has always been a concern. For a dynamic Universe, the age cannot be fixed; i.e., under Hubble's Law, the age of the Universe would reflect 13.86 bn years if calculated as two billion years in the past or also two billion years in the future.

To overcome this shortcoming, a new theory of Natural Universe Expansion (NUE) is introduced, which adds the dimension of a continuous compounding rate of expansion of the Universe with an element of timescale.

With this addition, we could redefine the age of the Universe theoretically and practically on a mathematical scale. It also presents the size of the Celestial bodies in the past and in the future. It resolves whether the Solar and Lunar eclipses will not occur in the distant future or are perpetual. The NUE Law also supersedes the Tectonic Plates Theory.

Hitherto, the Universe is inferred from the observations and interpretations of data and images collected from Earth-based telescopes, the James Webb Space Telescope (JWST), and spectrographic analyses for measuring blue shift, red shift, and other elements in the Universe. We also depend upon the Doppler effect, gravitational lensing techniques, Newton's law of gravitation, Einstein's general and special relativity, dark matter, and dark energy concepts. Distances are measured using parallax, standard candles, cepheid variables, etc.

All these findings are good enough for proximate measurements, and inferences are drawn from scientific, logical interpretations of probable and assumed reasons. For example, there is no finding of how the Universe got so populated over billions of years. However, there needs to be a reference point to compare and know what all the Celestial bodies and their motions are actively performing and achieving.

The NUE Model links Humans as an integral element of the Universe, and therefore, it develops a reference point for the behaviour and the activities of a

Living Organic Universe. Technical analyses of humans and their behaviour are a reference point for various activities happening in the Universe.

Thus, the research resolves most of the ambiguities and flaws of the Big Bang theory, Steady State Theory, dark matter, and dark energy by introducing the Living Organic Universe (LOU) Model and the NUE Law.

Baldevkrishan Sharma

*Chairman, Lead Scientist & author,
Astrogenesis Research Foundation*

TABLE OF CONTENT

CHAPTER-1: "A Critical Examination of Hubble's Law and Its Limitations" 'Analysis of Its Flaws and Implications'.		
Sr.	Particulars	Pg
1	CHAPTER-1; Abstract	01
2	Introduction: The Natural Universe Expansion (NUE) Theory:	01
3	Limitations and Shortcomings in Hubble's Constant:	01
4	The Hubble's Law and Hubble Constant (H_0)	02
5	The H_0 needs to be consistently constant.	02
6	The accepted value of H_0 :	03
7	Something missing in Hubble's equation?	03
8	What are the various shortcomings in measuring the distance D and velocity V?	04
9	The present understanding of the cause of the Universe's expansion:	04
10	Universe Expansion through Friedmann equations:	04
11	A flaw in calculating the distance D and the age of the Universe:	04
12	Reasons for inconsistent Hubble Constant?	06
CHAPTER-2: The Law of NATURAL UNIVERSAL EXPANSION (NUE)		
Sr.	Particulars	Pg
1	CHAPTER-2; Abstract	11
2	Introduction and the purpose of presenting the NUE (Natural Universe Expansion) Law:	11
3	The objective of the NUE Law:	12

4	The Fundamental Law of 'Natural Universe Expansion' (NUE):	13
5	Explanation of the NUE Law:	14
6	What are the implications of the NUE Law?:	14
7	What is the outreach of the NUE Law?	15
8	Why do we call the Universe a living body system?	16
9	The reason for the NUE Law's integration into the Universe's functioning?	16
10	If NUE Law applies to an atom, will it not change with time, the physical characteristics or the properties of matter?	17
11	The ratio-Constants.	18
12	Why does an expanding Universe need to have constant density and its benefits?	18
13	What are the conditions for an expanding Universe to be stable and functional?	19
14	Does the NUE Law and the Nu constant causes Universe expansion, increase in the size of the Celestial bodies and recession between the Celestial bodies?	21
15	How do we prove that the straight-line increase in Sun-Earth distance simultaneously follows the NUE Law and the Laws of Gravitation?	22
16	Calculating the recession of the Earth from the Sun.	23
17	Using Earth-Moon recession to authenticate the Sun-Earth recession.	23
18	Generalising all Planets in the Solar System are receding from the Sun at the rate Nu Constant.	24
19	Why is the constant ambient temperature of the Universe essential?	25
20	The dual isotropic-anisotropic character of the Universe:	25
21	The dual Homogeneous-Heterogeneous characteristics of the Universe:-	26

22	Is Earth genetically and homogeneously integrated with the Universe?	27
23	Does the 'Living Organic Universe' (LOU) have genders?	27
24	If Earth is a female gender, can the Earth procreate?	31
25	The NUE Law states that the Universe's expansion, including all Celestial bodies, Stars, and Galaxies are, continuously compounding with respect to time and deriving Nu constant.	32
26	Why have we calculated the Nu constant from the Earth-Moon recession?	33
27	Why and what's the difference between Nu constant and H_0 constant?	34
28	When is Nu constant = Hubble's constant?	34
29	Nu constant is a non-linear equation. Is it non-linear at all times?	34
30	When period 't' increases, what happens to the space distance 'R' and the mass of the Principal Celestial body?	40
31	What will be the increase in the mass of Earth in 1 year?	41
32	Calculating the increase in Earth-Moon distance (R) from the increase in mass (m) of the Earth per year?	42
33	To find Earth-Moon recession (surface-to-surface)	43
34	How do we say Earth is a Principal Body for all Galaxies, Stars and other Celestial bodies in deep Space situated at multiple distances (in Mpc)?	44
35	How do we say that the mass of each Celestial body in the Universe is increasing simultaneously in whichever System they belong to?	45
36	Why are Cosmologists unable to discover the increased mass in the Universe?	49

CHAPTER-3: The comparison between NUE Law with Hubble's Law and its Applications		
Sr.	Particulars	Pg
1	CHAPTER-3; Abstract	51
2	NUE Law, Nu constant comparison with Hubble's Law and Hubble constant	51
3	Applications of NUE Law and Nu-Constant:	58
4	Can we find the age of excavated artefacts calculated from the Nu constant?	58
5	Can we find the rate at which the Earth is slowing per year?	60
6	What is the interpretation of the slowing of Earth's rotation?	63
7	To calculate the number of hours per Earth day, 500 mn years ago?	63
8	To calculate the number of hours per day 500 mn years in future from the present period?	63
9	Does the NUE Law provide the mechanism of Universe expansion, including the expansion of all Celestial bodies and their intervening space?	64
10	Comparison of the change in Earth's Radius per year (r_E) with the data on NASA websites:	65
11	To test check the NUE Law and Nu constant by ISRO, NASA, or ESA.	68
12	Is NUE Law applicable to the velocity of light?	69
13	Table-T-3.2 is a Table drawn from Nu constant w.r.t. time t v/s Continuous compounding rate of expansion/shrinking and the recession velocity V' , of the satellite from its Principal body.	70
14	Is Hubble Constant a particular case of Nu Constant?	73

15	From Hubble's Constant, how do we derive the Nu Constant?	73
16	The graphical presentation of recessional acceleration for $D' = D.e^{r.t}$.	73
17	The Probable Birth time of the Universe:	78
18	What is the actual time of singularity of the Universe?	79
19	The Universe expansion in the future w.r.t. $t = 0$ (present period):	79
20	The age limit of the Universe:	80
21	What is the theoretical age of the Universe?	80
22	What is the practical age of the Universe?	80
23	The simultaneous dual application of the NUE Law and the Laws of Gravitation on all Celestial bodies in Space.	84
24	Graph of increase in mass (m) per year (or per unit of time) in Earth versus the increase in the radius (r) of Earth.	86

CHAPTER-4: Expanding Celestial Bodies, Space & perpetuity of Eclipses.

Sr.	Particulars	Pg
1	CHAPTER-4; Abstract	93
2	Finding the size of Celestial bodies at different periods:	93
3	How do we calculate backwards in time 4.5 bn years ago?	94
4	To calculate the Earth-Sun (E- S_C -C) distance (Centre-to-centre),	95
5	What's the size of the Sun? Was it 4.5 bn years ago?	96
6	Will the eclipse of Sun-Earth-Moon be perpetual or transitional in the present period?	96
7	The present knowledge and the understanding of the Earth-Moon recession.	99

8	Formation of Moon:	99
9	Does an increase/decrease in mass in a Celestial body influence Space in its neighbourhood and the Universe?	101
10	Impact of NUE Law on g the Gravitation due to acceleration:	102
11	To calculate the value of g 4.5 bn years ago	102
12	The increase/decrease of the mass of the Earth in period t to $(t \pm \Delta t)$ how will it impact Earth's sphere of influence?	103
13	To calculate the present radius of SOI of the Earth w.r.t. the Sun.	103
14	To calculate the SOI radius of the Earth 4.5 bn years ago w.r.t. the Sun.	104
15	How is the Universe Expanding and the mass increasing? Do we subscribe to the proposed 'dark energy cosmology model'?	105

CHAPTER-5: The NUE Law and the increase (stretching) of the Wavelengths.

Sr.	Particulars	Pg
1	CHAPTER-5; Abstract	107
2	The Sun and the Universe:	107
3	The limitations of Nu constant	108
4	NUE Law applicable to the wavelengths (λ):	111
5	What's the Current understanding of the lifespan of the Sun and its age derived from the NUE Law?	114
6	Sun's lifespan based on the NUE Law.	114
7	Relationship of the wavelength (λ) with time 't':	115
8	Relationship of Wavelength (λ), Temperature (T), and Energy (E):	116

9	Wien's Law to explain the (λ) and temperature (T) relationship:	117
10	Relationship between volume (V_o) of a Celestial body and its emitted (λ_{MAX}).	117
11	Relation between wavelength (λ) and Energy (E)	118
12	Relation between wavelength (λ) and period (t)	119
15	How is the Size of the Sun determined?	119
16	The wavelength and the size of the Celestial body:	119
17	Why does the Universe not heat up when billions of Stars in each Galaxy and billions of such Galaxies have continuously thrown heat into Space for billions of years?	120
18	Why does the Sun's size keep increasing as it moves in the violet band towards the red band?	121
19	The paradox of the Sun's size increases with its ageing versus its present model of the Sun, where the fuel is Hydrogen consumption, and its mass depletes to produce light and energy.	122
20	Contradiction and a serious flaw in the Sun's present Model.	122
21	Contradiction of the Sun's energy model with the expanding Universe.	123
22	Does the Sun die out after reaching the edge of the Red Band?	123
23	Sun's transition in various bands of the EM spectrum, w.r.t. time t:	123
24	The birth of the Sun as presented in the present Sun's model:	123
25	The death of the Sun as presented in the present Sun's model:	124
26	The ARF model of the Sun and its views:	124
27	The propounded ARF Model of the Sun:	125

CHAPTER-6: Propounding the New Universe Model THE LIVING ORGANIC UNIVERSE (LOU) MODEL.		
Sr.	Particulars	Pg
1	CHAPTER-6; Abstract	131
2	The History of the popular Universe Models presented.	131
3	Newtonian model of the Universe:	132
4	Einstein's model of the Universe:	132
5	Friedmann's Model of the Universe:	133
6	Big Bang Theory model by Father Georges Lemaître in 1927.	134
7	The Steady-State Theory	135
8	Quasi Steady State Cosmology (QSSC)	137
9	The Theory of Eternal Inflation (April 27, 2018):	138
CHAPTER-7: THE LIVING ORGANIC UNIVERSE (LOU) MODEL.		
Sr.	Particulars	Pg
1	CHAPTER-7; Abstract	139
2	Is the Theory of a 'Living Organic Universe' (LOU) a better option:	139
3	A Dynamic Universe:	140
4	The Earth-Universe connection:	140
5	The Living Universe:	141
6	What are the shared characteristics and features generally found among living bodies?	143
7	Are the human body emissions and Universe CMBR the same?	144
8	Living bodies are not self-sufficient.	144

9	Are Celestial bodies gender-specific? If so, why?	146
10	The procreation process of living bodies, including Stars and Celestial bodies:	146
11	In Cosmology, is an expanding Universe a closed or open system?	148
12	The process of the end of the Universe:	149
13	Summary and Conclusion of how the Universe and the living human models are comparable:	149
14	Why explore the Universe through the anatomy of a living human?	150
15	The Model of the Universe's living system is comparable with the Model of the Earth's living system:	152
16	What could the Universe within (internally) and outside (externally) on a Human-Universe similarity model?	153
17	The Captain:	155
18	The Master:	155
19	The internal part of the physical body system.	157
20	Comparing the human internal System with the Universe.	159
21	Where are the Galaxies, the Solar System, and Earth positioned in the Universe?	159
22	How is the Universe drawing energy from external sources and discharging waste and unwanted matter outside the Universe?	160
23	The Captain and the Master of the Universe System:	160
24	Is the universe an Open system or a Closed System?	161

25	Are the laws of Gravitation being violated in an expanding Universe?	161
26	The NUE Law and the Laws of Gravitation are interwoven, and example	161
CHAPTER-8: The LIVING ORGANIC UNIVERSE		
Sr.	Particulars	Pg
1	CHAPTER-8; Abstract	163
2	The Universe is a 'Living Organic Body':	164
3	The Universe emits radiation:	164
4	The increase in wavelength and the age of Stars, Galaxies etc.	164
5	Dark matter:	165
6	The active Dark Matter:	166
7	Example and the present knowledge of the Sun:	166
8	Celestial bodies, when created (or born), emit a specific wavelength at its birth, which keeps increasing on a timescale at the rate Nu constant.	167
9	The dark matter (evolved from the NUE Law):	168
10	What is the rate of increase of wavelength (λ) of the Sun?	169
11	The Organic Model of the Universe: How did the Universe get into its conception, prenatal and postnatal stages?	170
12	The NUE Universe Model is a Living Organic Universe.	174
13	The intrinsic characteristics of NUE (Natural Universe Expansion):	174
14	The Universe expansion:	174
15	The Universe accelerated expansion over a long period:	175
16	The graphical presentation:	175

17	The present age of the Universe: The prenatal period and the birth of the baby Universe:	176
18	The ambient Temperature of the Universe is constant:	176
19	Why is the ambient and constant temperature of the Universe essential?	177
20	Comparison of ambient temperature with other living bodies:	177
21	Is the density of the Universe a fixed constant, or is it decreasing?	179
22	In an expanding Universe, does the Space-time stretch, or does it expand, maintaining constant density?	180
23	The Space density:	180
24	The difference between stretching and expanding:	180
25	When the Earth's surface area expanded, did the seas and oceans stretch or expand to the present level?	181
26	Is the Organic Model of the Universe an Open, Isolated, or Closed System?	181
27	What is the cause of recession in an expanding Universe?	182
28	What is the role of 'dark energy' in expanding the Universe?	183
29	Why is the NUE Universe considered to be a Closed Spherical?	183
30	Why NUE law supports a spherical closed Universe:	184
31	Why is the pseudo-centre of the revolving Stars active, energetic, powerful and violent?	186
32	The net Gravitational effect of Stars moving asymetrically at near different radii from the centre.	186
33	Why pseudo centres display energetic and violent behaviour.	187
34	Is the Universe rotating?	187
35	The NUE Law provides the Universe with the shape of Closed Spherical positive curvature, which can expand endlessly.	189

36	The present knowledge and the shape of the Universe.	189
37	The NUE Law contradicts the idea of a flat Universe.	190
38	Critical Study of the Flat Universe Model presented by NASA.	190
39	Why flat Universe Model by NASA?	190
40	Why the dark energy and dark matter?	190
41	Why the NUE Model does not need the 'dark energy' and 'dark matter' concept?	191
42	The shortcomings of a Flat Universe Model:	191
43	Is it correct to accept NASA's infinite expansion of the Flat Universe Model, ending with a zero expansion rate?	192
44	The following Table explains the LOU-NUE Closed Universe Model compared to the Flat Universe.	192
45	The creation of new matter in the Living Organic Universe model?	195
46	How is mass created in the Organic Universe Model?	195
46	Table T-8.2: Difference between Steady State Theory, Big Bang Theory & the LOU-NUE MODEL of the Universe:	196
CHAPTER-9: The Earth's Expansion and the Tectonic Theory.		
Sr.	Particulars	Pg
1	CHAPTER-9; Abstract	207
2	The present knowledge of the Tectonic Theory and its details.	208
3	Evidence supporting the Tectonic theory.	210
4	Tectonic theory: Earth's inner layers: A peek inside our planet.	211
5	Tectonic theory: Earth's layers.	212
6	The Theory of Earth's Expansion and the LOU-NUE Law:	213

7	What is the increased circumference of the Earth since 250 mn years ago.	214
8	Increase in the Earth's Circumference, one bn years ago to now:	215
9	How do we calculate the Earth's increase in circumference when the west coast of Africa and the east coast of South America were closest to each other, forming a supercontinent?	215
10	How do we calculate $58^{\circ}43'00''$ how much drift is in km?	215
11	Comparison of Tectonic theory with the LOU-NUE Law theory:	216
12	The questions and queries need to be answered by the Tectonic theory.	218
13	Proof of how the Earth is physically expanding?	221
14	Earth's expansion indicators: Earthquakes, Volcanoes, and landslides occur globally per annum at various places all over the Earth's surface.	221
15	The proof of Earth's expansion calculated from the slowing down of the Earth's rotation period:	223
16	Why is the quantum of slowdown calculated by Nu constant, more accurate than by NASA at $47/1000s' / 3200$ yrs.	224
17	How much is the increase in the radius per year of the Earth when the Earth's rotation slows down at the rate $8.656 \mu.s/yr$?	225
18	Is Earth's slowing down because of lunar tidal friction?	226
19	Can we calculate the Earth's expansion directly from Nu Constant?	226
20	How does it prove that the LOU-NUE's Expansion Theory is correct, authentic, indisputable and overrides the Tectonic Theory?	227
21	Conclusion: The LOU-NUE Expansion Theory proves that it overrides the Tectonic Theory:	229

“A Critical Examination of Hubble's Law and Its Limitations”

'Analysis of Its Flaws and Implications'.

CHAPTER-1; Abstract :

"A Critical Examination of Hubble's Law and its Limitations" provides a detailed analysis of Hubble's Law and the introduction of the NUE Law as a solution to its flaws. Hubble's Law, first proposed in 1929, showed the Universe is expanding, and the Hubble Constant (H_0) became the foundation for measuring the age and expansion rate of the Universe.

However, since its inception, numerous measurements of H_0 have produced inconsistent values, ranging from 500 km/s/Mpc to the current NASA-accepted 70 km/s/Mpc, causing doubts about the accuracy of distance measurements and the recession velocity of the Celestial bodies.

Techniques and methods to determine distance and recession velocities such as the Doppler effect, brightness method, red giant stars, and gravitational waves are examined for their contributions and limitations in determining H_0 . Additionally, the CHAPTER highlights that Hubble's Law does not account for the accelerated expansion observed in distant galaxies, suggesting that non-linear factors are missing.

Theories such as dark energy, dark radiation, and dark matter are explored as potential explanations for this accelerated expansion. The NUE Law is proposed as a more precise mathematical solution to address these inconsistencies and enhance our understanding of the Universe's expansion.

1. Introduction:

1-a-i. Why NUE LAW:

NUE LAW is a path-breaking presentation, a natural evolution that will complete the work left incomplete by Edwin Hubble, his colleagues, astronomers, cosmologists, and other scientists since 1929.

1-a-ii. Limitations and Shortcomings in Hubble's Constant:

Before we present this NUE Law, it's essential to explain the current shortcomings in evaluating Hubble's Constant and how the NUE Law provides a practical and algebraic mathematical solution.