

# Dynamic Universe Model Based on Newtonian Gravitation Giving Results Well from Universe Level to Galaxy Level to Solar System Level to Earth Level to Electron Level to Energy Level and to Nanobio Particle Level Now

Satyavarapu Naga Parameswara Gupta

**Abstract** — Dynamic universe model's SITA simulations can be used to solve many problems in physics, chemistry, Biology etc. The Dynamic Universe Model is based on Newtonian gravitation and finds the total attractive force of all masses in a combined way on any single mass. This SITA approach provides accurate results from the Universe level down to the Galaxy, Solar System, Earth, Electron, Energy, and even Nanobio Particle levels. Our thinking and exploration should not be limited to just 2-body problem and Universe model limited to cosmology in Physics. A small software program (SITA) takes your thinking to:

- What are the inherent properties of inter-molecular attraction forces?
- How does the Galaxy balance its rotations of stars?
- Why did the Pioneer satellite have an irregular movement?
- Why there are so many blue shifted Galaxies in the universe?
- What is the structure of Galaxy center which will be stable and can support full Galaxy?
- How insoluble contaminations in water or in any other liquids diffuse?
- What happens to all the energy emitted by sun and other stars and Galaxies?
- How local system of Galaxies balance each other?
- How are electrons or positrons generated in the universe?
- Exploring galaxy rotation curves
- Can these be explained...the Origin, Propagation and Uniformity of CMB?
- How hydrogen atoms and other atoms are formed?
- How are three states of water (H<sub>2</sub>O) formed?
- How astronomical Jets are formed?
- How are the mathematical equations proved?
- What about SINGULARITIES in the software and in the Model?

**Keywords** — Dynamic Universe Model, SITA Simulations Multi Molecule Theory.

## I. INTRODUCTION

This paper gives a bird's eye view of about 45 years research done on SITA simulations of Dynamic Universe Model. Let us see the following sub heads.

## II. WHAT IS AN N-BODY PROBLEM?

Let's delve into the important features of each point mentioned in the abstract, which will be categorized into different subheadings. It is not feasible to provide keywords for such an extensive coverage, so kindly refer to the individual papers for each subheading. The order in which we discuss the subheadings is not significant since each point is distinct and independent of the others in this discussion. According to this model, there was no Big Bang singularity, so the question "What happened before the Big Bang?" does not arise. Instead, it suggests that our universe is neither expanding nor contracting, and is not infinite but a closed, finite universe. Moreover, our universe is not isotropic or homogeneous, but rather, it is "lumpy". However, it is not empty and does not contain an infinite sink at infinity to hold all the escaped energy. This is a closed universe, and no energy will escape from it. It is not a steady-state universe in the sense that it does not require matter generation through empty spaces, nor does it require a starting point of time.

---

Submitted on March 26, 2023.

Published on June 04, 2023.

S. N. P. Gupta, Bhilai Steel Plant, Chhattisgarh, India.  
(corresponding e-mail: snp.gupta@gmail.com)

Time and spatial coordinates can be chosen as required, and no imaginary time perpendicular to the normal time axis is necessary. In addition, there are no baby universes, black holes, or wormholes in this model. The universe exists now in its present state, existed earlier, and will continue to exist in a similar way in the future. All physical laws will work at any time and place. Evidence for the three-dimensional rotations or the dynamism of the universe can be seen in the streaming motions of the Local Group and Local Cluster. In this dynamic universe, both red-shifted and blue-shifted galaxies coexist simultaneously. Additionally, we will provide references for each point discussed in the abstract.

### III. INTER-MOLECULAR ATTRACTION FORCES

What are the inherent properties of inter-molecular attraction forces? This question was not explored by earlier peers much. We can find many papers that found the value of this Inter-molecular attraction force, but not on its basic nature. Previously this inter-molecular attraction force was taken as Newtonian Gravitation and found that it was not sufficient and very weak. We can see papers on that.

In this proposal I took it as combined vector sum of all Newtonian attractions of all the other atoms in the group under consideration. Published in SCIREA Journal of Mathematics (2022 Jan), for acceptance of mathematics.

### IV. PIONEER ANOMALY

#### A. *Why did the Pioneer Satellite have an Irregular Movement?*

According to Wikipedia, the Pioneer anomaly, also known as the Pioneer effect, refers to a deviation from expected trajectories of unmanned spacecraft that have visited the outer solar system, such as Pioneer 10 and Pioneer 11. As these spacecraft escape from the solar system, they are being influenced by the Sun's gravity and experiencing a slowdown.

The Dynamic Universe model of cosmology offers an explanation for the Pioneer anomaly. It suggests that the acceleration due to gravity of the Sun increases towards the Sun, specifically beyond certain celestial bodies such as Mercury, the Moon, Mars, Jupiter, Saturn, Uranus, and Neptune. The corresponding values are approximately  $-4.44202E-07$  m/sec<sup>2</sup>,  $-2.11409E-08$  m/sec<sup>2</sup>,  $-2.11E-08$  m/sec<sup>2</sup>,  $-2.30844E-05$  m/sec<sup>2</sup>,  $-2.44565E-06$  m/sec<sup>2</sup>,  $-8.91522E-08$  m/sec<sup>2</sup>, and  $-4.3E-09$  m/sec<sup>2</sup>, respectively. The negative sign indicates that the force is acting towards the Sun, in the same direction as the Sun's acceleration due to gravity. However, these values are approximate and may depend not only on the distance between the Sun and the test particle, but also on the overall gravitational effects of nearby stars, the Milky Way and its center, globular clusters, and the Local system.

### V. BLUE SHIFTED GALAXIES

#### A. *Why are There So Many Blue Shifted Galaxies in the Universe?*

The universe contains many blue-shifted galaxies. The Dynamic Universe Model proposes that the universe is rotating, with electrons rotating around nuclei, moons rotating around planets, planets, asteroids, and comets rotating around stars, and stars rotating around the center of their galaxies. Galaxies themselves rotate around the common center of local systems, and systems rotate in ensembles, aggregates, conglomerations, galaxy clusters, and so on. Galaxies that are approaching appear blue-shifted, while those that are moving away appear red-shifted. This paper examines simulations that predict the formation of orbits, with some galaxies coming near (blue-shifted) and others moving away (red-shifted).

The simulations presented in this paper place point masses at different distances in a 3D Cartesian coordinate grid and allow them to move on the universal gravitation force acting on each mass at that moment. The output pictures depict the three-dimensional orbit formations of point masses after a series of iterations. The simulations predict the existence of a large number of blue-shifted galaxies in an expanding universe, a prediction that was proven true in 2009 when over 8,300 blue-shifted galaxies were discovered extending beyond the Local Group by the Hubble Space Telescope.

### VI. STRUCTURE OF GALAXY CENTER

#### A. *What is the Structure of Galaxy Center which will be Stable and Can Support Full Galaxy?*

Dense mass stars are at the Galaxy center. They rotate with each other and maintain its solidarity and support stars in whole Galaxy.

## VII. DIFFUSION

### A. *How Insoluble Contaminations in Water or in Any Other Liquids Diffuse?*

Here in this paper, we show that the primary reason for this diffusion is SITA forces on molecules Multi Molecule Theory. Some pairs of molecules hit each other, bounce like rubber balls, and diffuse because of these SITA forces. Here some of the molecules are going to higher distances from the hitting centers. We detected intermolecular hits happened in an iteration. We collected addresses of inter-molecular hits in a chosen area in the spreadsheet. The overall shape of area where hits are stored, is changing with inter molecular distances. We experimented by changing all the inter molecular distances proportionally without changing the relative positions of molecules with each other and captured the screenshots. After we detected above mentioned hits, we observed some pairs of molecules travelling longer distances from the center of the used molecules set. This is 'Diffusion'. Clearly this is happening after the hit, so this diffusion is not bulk flow. There will be some more results to answer some further questions like Brownian motion and Navier-stokes equations etc.

### B. *Intermolecular Attraction Forces*

We know the Van Der Waals Forces (London dispersion forces), which can be observed in all types of molecules. See EJ Physics and Acta Scientific for full papers.

## VIII. FREQUENCY UPSHIFT

### A. *What Happens to All the Energy Emitted by Sun and Other Stars and Galaxies?*

When a light ray or electromagnetic radiation passes near a star or sun, its frequency shifts to a higher frequency. The Dynamic Universe Model studies show that when light rays and other electromagnetic radiation pass near a gravitating mass, their frequency changes. The amount of change in frequency depends on the relative direction of movement between the mass and radiation. It is important to note that particles such as neutrinos, positrons, electrons, protons, and neutrons also behave like waves. This means that frequency enhancement is possible, and the change in frequency can even convert radiation into micro particles of matter, as mentioned above. It is essential to remember the wave-particle duality in this context.

Possible applications are: All element formations, Cosmic Rays Formations, GRB (Gamma ray Bursts) Formations, Transient Phase-space activities, Multi-messenger Processes, Cosmic Dust Formation, Ionised ISM (Inter Stellar Materials) etc.

## IX. LOCAL SYSTEM

### A. *How Local System of Galaxies Balance Each Other Galaxies?*

The local system of galaxies, which includes the Milky Way and its neighboring galaxies, balance each other through a combination of gravitational forces and orbital motion. The gravitational pull of each galaxy affects the others in the local group, and this interaction helps to stabilize their relative positions and velocities.

For example, the Milky Way and the Andromeda galaxy are the two largest members of the Local Group, and they are held in a delicate balance by their mutual gravitational attraction. As they orbit around a common center of mass, their gravitational forces cause them to tug on each other, slowing down each other's motion and preventing them from colliding.

Smaller galaxies within the Local Group also contribute to this gravitational balance. For instance, the Large and Small Magellanic Clouds are two dwarf galaxies that orbit around the Milky Way, and their gravitational pull helps to stabilize the motion of the Milky Way and other nearby galaxies.

Overall, the local system of galaxies is a complex and dynamic system, with each galaxy contributing to the gravitational balance that keeps the entire system in equilibrium.

Simple one sentence answer is, Galaxies rotate about each other to keep themselves in Dynamic Equilibrium.

## X. MATTER GENERATION (NUCLEOSYNTHESIS)

### A. *How Electrons or Positrons are Created in the Universe?*

How hydrogen atoms and other atoms are formed?

This paper builds upon the studies of the Dynamic Universe Model, which state that when light rays and other electromagnetic radiation pass close to a massive object, their frequency changes. The degree of this frequency change depends on the relative direction of movement between the radiation and the mass.

It is important to note that particles such as neutrinos, positrons, electrons, protons, and neutrons also exhibit wave-like behavior due to the wave-particle duality. Therefore, frequency enhancement can also lead to the conversion of radiation into micro-particles, as mentioned above.

This paper delves further into the formation of various elements and explores possible electrochemical reactions that can occur at high temperatures and pressures to create these elements.

## XI. MISSING MASS

### A. Exploring Galaxy Rotation Curves

Observationally, a galaxy appears as a single entity, but with high-resolution telescopes, the individual stars that make up the galaxy can be seen. The more stars a galaxy has, the more massive it is. However, by the early 1960s, there were indications that something was amiss with this theory. The first indication that there is a significant fraction of missing matter in a galaxy came from studies of our own Milky Way.

The Dynamic Universe Model, which does not include dark matter, was presented in a theoretical paper at OMEG05 in Japan, PHYSTAT05 in the UK, and HELAS in Greece in 2005. These papers can be found in Book 1 on page 238. These predictions were confirmed in October 2013.

This paper discusses the theoretical non-requirement of dark matter, meaning there is no missing mass in galaxies. The simulation of inter-intra-galaxy tautness and attraction forces (SITA) calculations of the Dynamic Universe Model were used to determine the theoretical circular velocity curves of stars in a galaxy. Five cases are presented, and it is shown that when a huge mass is assumed at the center of the galaxy, along with sun-like stars and external galaxies, the resulting graph of circular velocities versus radius looks exactly like the observations made by astronomers. In all other cases where either the central mass or external galaxies are missing, the resulting graphs look different.

It can be inferred that the theoretical requirement of dark matter is a calculation error, and that no dark matter (missing mass) is required according to the Dynamic Universe Model. This prediction was first presented at Tokyo University in 2005 and was later confirmed by the findings of the Large Underground Xenon (LUX) experiment in 2013.

## XII. CMB

### A. Can these explain the Origin, Propagation and Uniformity of CMB?

This is a new theoretical approach to explaining the origin and uniform propagation of the Cosmic Microwave Background (CMB) in the dynamic universe. It is well known that the Sun, planets, asteroids, stars, and galaxies emit radiation in the microwave range, which covers all the frequencies in the Microwave range including the K, Ka, Q, V, and W bands as measured in the WMAP mission. In this paper, we attempt to theoretically measure the radiation and temperature received in a square degree solid angle at Earth, which we find to be remarkably uniform. This uniformity may represent the averaging done by the main lobe of the dish antenna of a few degree's diameters. We also analyze the side lobe pickup of bright sources in the sky, which depends on the three-dimensional gain pattern of the dish, resulting in large angle multipole- $l$  systematic errors. The dynamic moment of astronomical bodies around Earth will result in small ripples of CMB, which can serve as evidence for the Big Bang-based cosmologies that show the CMB as relics of the Big Bang. In this paper, we explore how the CMB is generated from stars and galaxies around us, and we show that no microwave background radiation has been detected so far after excluding radiation from stars and galaxies.

## XIII. THREE STATES OF MATTER

### A. How are Three States of Matter Formed?

This is a significant discovery. As we all know, water can exist in three fundamental states: ice, water, and vapor. But what causes these changes? What is the fundamental nature of the intermolecular forces that drive these state changes? These questions were not previously explored in detail. While temperature is often cited as a factor in state changes, we delved deeper into the more fundamental aspects of intermolecular attraction forces and distances between molecules. To learn more about our findings, please refer to the publication titled "Three States of H<sub>2</sub>O," which was published by ACTA Scientific in 2021.

#### XIV. ASTRONOMICAL JETS (ASTROJETS)

##### A. *How Astronomical Jets are Formed?*

Astronomical jets have been observed emanating from the centers of many galaxies, including our own Milky Way. The formation of such jets is explained using SITA simulations of the Dynamic Universe Model. In this study, the path traced by a test neutron is calculated and depicted using a setup consisting of a Dense mass equivalent to the mass of the Galaxy center, 90 stars with similar masses to those near the Galaxy center, mass equivalents of 23 Globular Cluster groups, 16 Milky Way parts, and Andromeda and Triangulum galaxies at appropriate distances. Five different types of theoretical simulations were conducted, all of which yielded positive results.

It was found that the path traveled by the test neutron was an astronomical jet that emerged perpendicularly from the Galaxy plane at the Galaxy center. In this paper, the simulation of the Milky Way's galactic center, along with ninety Wolf-Rayet stars, is discussed. This entire setup is under the continuous and dynamic influence of twenty-three globular cluster groups, sixteen Milky Way parts, and Andromeda and Triangulum galaxies, comprising a total of 133 masses in this work. The dynamical gravitational effect of all these masses on a test neutron is calculated and depicted in graphs. The output section discusses various cases of simulations and their corresponding graphs.

For any N-body problem calculations, the accuracy of the input data is crucial to obtaining precise results. Therefore, extreme care should be taken when collecting input data. When a neutron is moving parallel to the Galaxy plane towards the center, it turns abruptly perpendicular to the Galaxy plane at the center. This also occurs with small masses, neutral atoms, or light photons. For further details, please refer to the paper on astronomical jets.

#### XV. SINGULARITIES

##### A. *What About Singularities in the Software and in the Model?*

In the first book titled "Dynamic Universe Model: A Singularity-free Solution to the N-Body Problem", a solution to the N-body problem is presented using the Dynamic Universe Model (SITA), which is free from singularities, inter-body collisions, and dynamically stable. The book discusses the history and provides a general introduction, including the reason for considering anisotropic density distributions. The mathematics involved and the final tensor formation are also covered, followed by numerical outputs. To demonstrate that singularities do not exist in this model, three cases were considered: 1) non-zero velocity position vector cross product, 2) non-zero polar moment of inertia, and 3) non-zero internal distances between all pairs of point masses. The results of these calculations are shown. The book also discusses and compares chaotic results with the earlier large astrophysical N-body problem, exponential divergence, and various types of errors such as input and output errors, with those in this model. This N-body problem solution can be used by anyone with a PC to solve currently unsolved applications, such as the Pioneer anomaly, New Horizons satellite trajectory at the Solar system level, missing mass due to star circular velocities, and galaxy disk formation at the galaxy level, among others.

#### XVI. FORMATION OF THREE STATES OF WATER

##### A. *How are Three States of Water (H<sub>2</sub>O) Formed?*

We conducted simulations to determine the combined vector force between H<sub>2</sub>O molecules using Newtonian Gravitation as the binding force. Our goal was to explain the basic nature of intermolecular attraction forces, and we used the example of H<sub>2</sub>O to illustrate the formation of the three states of water using SSMMT at the nanoparticle level. Our simulations yielded various results, including the finding that the experimental value of intermolecular attractive forces is similar to Newtonian gravitation, with any discrepancies being accounted for by SITA simulations. For more information on SSMMT and related papers and books, please refer to our webpage listed in the references.

#### XVII. MATH

##### A. *How are the Mathematical Equations and Derivations Proved?*

We have published pure theoretical papers in various mathematical journals in the USA, India, and nanobio math journals. There were no queries or objections raised. Please see our references or contact the author for more information. Some examples include: 1) "NONLINEAR STUDIES", a mathematical journal based in the USA, which published Dynamic Universe Model's Pioneer anomaly, and 2) "SCIREA Journal of Mathematics" (January 2022), which accepted our paper for publication.



### XVIII. MODEL OF UNIVERSE PROPOSED BY DYNAMIC UNIVERSE MODEL

In this discussion, we will explore various processes happening in the Universe based on experimental evidence. To simplify matters, we will focus on Part 1, which concerns the life cycle of galaxies and the birth and death of these celestial bodies. We will also consider whether the Universe provides guidance for the movement of galaxies and ask whether it is a thinking and reproducing universe or a mindless one. As we observe the Sun, stars, and galaxies dissipating enormous amounts of energy in the form of radiation through the fusion of hydrogen into helium, it raises the question of whether the Universe will eventually die once all its hydrogen is spent. However, the Dynamic Universe Model suggests another process, where energy in the form of electromagnetic radiation passing near any gravitating mass changes in frequency and ultimately converts into neutrinos (mass). Thus, energy is converted back into matter, and the cycle of energy to mass to energy continues, sustaining the Universe and maintaining its present status forever, like a steady-state model without any expansion. This process will be explored in Part 2: Energy-Mass-Energy Cycle. Once energy is converted into mass, the question arises as to how various elements are formed and where they are formed. The Dynamic Universe Model suggests that these particles change into higher massive particles or may get bombarded into stars or planets, resulting in the formation of various elements. We will discuss the formation of elements in six processes, including elementary particles and elements generated in frequency-changing processes, cosmic rays, small stars, large stars, supernovae, and man-made elements by neutron stars. This will be explored in Part 3: Nucleosynthesis.

### XIX. CONCLUSION

Why thinking should be limited to solving two body problem? Probably because Newton solved the two body problem fully. Can we just limit to only two body problem and solve all the problems in Physics? Or in other words shall we apply only the two body problem principles to all the known Physics?

The Dynamic Universe model is a math model based on tensors that is free of singularities. The linear tensors used do not require the use of differential or integral equations, resulting in a single set of calculated output values. This data includes the properties of each point mass such as its three-dimensional coordinates, velocities, accelerations, and mass. In contrast, the Newtonian two-body problem uses differential equations, while Einstein's general relativity utilizes tensors that ultimately lead to differential equations. The Dynamic Universe Model employs tensors that generate simple equations with interdependencies, providing a unique solution for positions. On the other hand, differential equations will not yield distinct solutions.

Continuity of the paper's sake, the following foundational concepts were reproduced from my blog. Dynamic Universe Model is based on the following foundational concepts:

- No Isotropy,
- No Homogeneity,
- No Space-time continuum,
- Non-uniform density of matter, universe is lumpy,
- No singularities,
- No collisions between bodies,
- No blackholes,
- No warm holes,
- -No Bigbang,
- No repulsion between distant Galaxies,
- Non-empty Universe,
- No imaginary or negative time axis,
- No imaginary X, Y, Z axes,
- No differential and Integral Equations mathematically,
- No General Relativity and Model does not reduce to GR on any condition,
- No Creation of matter like Bigbang or steady-state models,
- No many mini Bigbangs,
- No Missing Mass / Dark matter,
- No Dark energy,
- No Bigbang generated CMB detected,
- No Multi-verses.

Here,

- Accelerating Expanding universe with 33% Blue shifted Galaxies.
- Newton's Gravitation law works everywhere in the same way,
- All bodies dynamically moving,
- All bodies move in dynamic Equilibrium,
- Closed universe model no light or bodies will go away from universe,
- Single Universe no baby universes,
- Time is linear as observed on earth, moving forward only,
- Independent x,y,z coordinate axes and Time axis no interdependencies between axes,
- UGF (Universal Gravitational Force) calculated on every point-mass,
- Tensors (Linear) used for giving UNIQUE solutions for each time step,
- Uses everyday physics as achievable by engineering,
- 21000 linear equations are used in an Excel sheet,
- Computerized calculations use 16 decimal digit accuracy,
- Data mining and data warehousing techniques are used for data extraction from large amounts of data.

Present day UNSOLVED problems, solved:

- Explains Formation of Astronomical Jets and their high Velocities at Galaxy centers,
- Predicts Frequency shift in electro-magnetic radiation near huge gravitating masses,
- Galaxy Disk formation: Densemass Equations,
- Explains gravity disturbances like Pioneer anomaly,
- Non-collapsing large scale mass structures,
- Offers Singularity free solutions,
- Solving Missing mass in Galaxies, and finds reason for Galaxy circular velocity curves,
- Blue shifted and red shifted Galaxies co-existence, in an Accelerating Expanding Universe,
- Explains the force behind expansion of universe,
- Explains the large voids and non-uniform matter densities,
- Predicts the trajectory of New Horizons satellite,
- Withstands 105 times the Normal Jeans swindle test,
- Explains VLBI variations,
- Explains Formation of Astronomical Jets and their high Velocities at Galaxy centers,
- Predicts Frequency shift in electro-magnetic radiation near huge gravitating masses.

There are many accomplishments of the Dynamic Universe Model's SITA simulations, such as energy formation and element creation. These simulations to find the combined vector force using Newtonian Gravitation as the binding force between different masses. Its latest is to establish that Inter-molecular forces are also SITA forces.

Hence, we can say that:

This method solved many unsolved problems earlier like existence of blue shifted galaxies galaxy at universe level, non-collapsing large scale mass structures at Universe level, pioneer anomaly and new horizons satellite trajectory predictions solar system level, an explanation of missing mass due to star circular velocities and galaxy disk formation at the galaxy level, Conversion of energy to matter at the energy level, Recent publication Of Nano particle and larger molecular results at Molecular level Simulations etc., are of the Dynamic Universe model. many questions are answered in different papers over the last forty years using a single set of equations.

Hence a small software program called SITA takes us beyond science giving us all these results!

Our thinking and exploration should not be limited to just 2-body problem and Universe model limited to cosmology in Physics.

In this paper consolidation of most of the work done in the last 45 years on Dynamic Universe Model SITA simulations.

#### ACKNOWLEDGMENT

I thank Mother Vak for the continuous guidance and encouragement for the last 45 years, for solving these totally unknown situations and helping us pass through all the hurdles to attain the victory of solving this problem.

## REFERENCES

- [1] Gupta SNP, Murty JVS, Krishna SSV. Mathematics of Dynamic Universe Model explain Pioneer Anomaly. *NONLINEAR STUDIES*, 2014; 21(1).
- [2] Gupta SNP. *Distances, Locations, Ages and Reproduction of Galaxies in our Dynamic Universe*. FQXi Essay contest, 2016-2017. Retrieved from: <http://fqxi.org/community/forum/topic/2726>.
- [3] Gupta SNP. *Dynamic Universe Model: A singularity-free N-body problem solution*. VDM Publications: Saarbrucken, Germany; 2010.
- [4] Gupta SNP. *Dynamic Universe Model: SITA singularity free software*. VDM Publications: Saarbrucken, Germany; 2011.
- [5] Gupta SNP. *Dynamic Universe Model: SITA software simplified*. VDM Publications: Saarbrucken, Germany; 2011.
- [6] Gupta SNP. Dynamic Universe Model Predicts the Live Trajectory of New Horizons Satellite Going to Pluto. *Applied Physics Research*, 2015; 7(4): 63.
- [7] Gupta SNP. Dynamic Universe Model Explains the Variations of Gravitational Deflection Observations of Very-Long-Baseline Interferometry. *Applied Physics Research*, 2014; 6(4): 1-16.
- [8] Gupta SNP. *SITA: Dynamic Universe Model: Blue Shifted Galaxies Prediction*, Lap Publications, Germany.
- [9] Gupta SNP. Model of Universe as Described by Dynamic Universe Model. *Open Journal of Modelling and Simulation*, 2019; 7(1): 41-78. DOI: 10.4236/ojmsi.2019.71003.
- [10] Gupta SNP. Basic Nature of Three States of Water Explained by “Multi Molecule Theory”. *Acta Scientific MEDICAL SCIENCES*, 2022; 6(4). DOI: 10.31080/ASMS.2022.06.1223.
- [11] Gupta SNP. Energy to Mass Conversion in Dynamic Universe Model. *SciFed Journal of Nuclear Science*, 2018; 2: 2.
- [12] Gupta SNP, Satyavarapu KKSM, Krishna SSV. The Basic Nature of Intermolecular Attraction Forces Newtonian Gravitation Shown by Deriving ‘Diffusion’. *European Journal of Applied Physics*, 2021; 5(1). DOI: <http://dx.doi.org/10.24018/ejphysics.2023.5.1.217>.
- [13] Gupta SNP. *SITA Simulations Rotating Universe and Simultaneous Existence of Red and Blue Shifted Galaxies in Dynamic Universe Model*.
- [14] Gupta SNP. No Dark Matter’ Prediction from Dynamic Universe Model Came True! *Astrophysics & Aerospace Technology*, 2015; 3(1). DOI: 10.4172/2329-6542.1000117.



**Satyavarapu Naga Parameswara Gupta** was born 7 Aug, 1954 in Kakinada, Andhra Pradesh, India. University second rank holder and passed out from College of Engineering, Anantapur, JNTU in 1976 July. Joined Bhilai steel plant in 1977 March, Retired from Bhilai Steel Plant on Aug 31, 2014, as Assistant General Manager.

Developed Dynamic Universe model in the subject of Astrophysics and Cosmology with God’s grace and was working on it since 1980’s. He started presenting papers from 1982 onwards. He visited many countries and met many stalwarts and Noble prize winners in physics including Stephen Hawking and Sir Rojer Penrose. His photos came in National papers and Scientific papers came in many national and international journals. 5 books were published in Germany on this Dynamic Universe model.

Off late for the last few years he developed interest in Nanobiotechnology in Physics portion, Nanobiotechnology is a wonderful multidisciplinary budding science have its roots in four main branches of science viz, Particle Physics, Nano Biology, and Micro chemistry and Engineering. Until today the behavior of fluid particles in Brownian motion are explained using Single molecule theory. But many questions remained for the last 400 years or so, how this Brownian motion happens? Why collisions happen between the Molecules? How is the momentum generated in the starting place? What are the are the trajectories of individual particles or molecules? The Physics and the calculations behind the force and individual velocities of molecules with relevant theoretical analysis were published in five different papers. For the Multi Molecule Theory (MMT) Subbarao Simulations (SSMMT) were developed in the last two years. There we discussed the basic theory, Excel implementation, simulation results of using, and four attached Excel files which confirmed the proposition that the Gravitation is the binding force between molecules in all different cases. Main finding that Gravitation is the binding force between Molecules to explain Brownian Motion, Diffusion.