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Expression of Deconstructivism in Museum Architecture

Shruti Jha[1], Vandana Sehgal[2]
[1]*M. Arch. Student, Faculty of Architecture, Dr APJ Abdul Kalam Technical University, Lucknow,* [2]*Dean, Faculty of Architecture, Dr APJ Abdul Kalam Technical University, Lucknow*

Abstract: ***This paper tries to investigate the different aspects of Deconstructivist philosophy of architecture in museum architecture. In this paper, knowledge is extracted through analyzing three case studies of Dec construction buildings. Museums are decoration based buildings hence less performing on structure or functionality. The paper concludes by drawing inferences which can be used to make future recommendations about the expression of deconstructivism in Museum architecture.***
The research will be conducted in various steps: A thorough literature review will be done by which some points will be extracted through which case studies are evaluated. Deconstructivism is a form of modernism which opposes modernism. The form of Deconstruction Museums varies according to the Design process adopted by Architect. Only asymmetry must not be a parameter to analyze a Deconstructivist building. Natural elements present in the surrounding plays a major role for enhancement of the entire project.
Keywords: Deconstruction, Style, Follies, Form, Strategy of Deconstruction.

I. INTRODUCTION

A. Post Modernism

Post Modernism is a movement that emerged in the late 20th century across the world. It functioned as the reaction against Modernism and was the agglomeration of many other movements. In Post-Modernist Science, the focus is on synthesizing parts into their interacting wholes. [2]

B. Deconstructivism

Deconstruction comes to light mainly from the work of a renowned French philosopher, Jacques Derrida in 1960s. Deconstructivism in architecture wasn't formed based on nihilism, but instead it is created to specifically show that there is intrinsic meaning in the negatives and incoherence of architecture. The Museum of Modern Art's 1988 Deconstructivist Architecture exhibition in New York, organized by Philip Johnson and Mark Wigley, helped to further cement the foundation of a brand new architectural movement.

C. Deconstructivism Style

Deconstructivism is an architectural movement that emerged in Post Modernism. It was an idea against the idea of minimalism in form of the modern architecture. Basic features of the movement included:

1) *Absence of harmony*
2) *Asymmetry*
3) *Non continuity in design*

A sense of incompleteness in the design is seen in the buildings made during the movement. [11]

II. ARCHITECTS CONCEPTS, PHILOSOPHY AND WORKS

Deconstructivist Architect Peter Eisenman converged on concepts of presentness and trade, Daniel Libeskind centralized on concept of absence and Frank Owen Gehry concentrated on binary oppositions and free play.

A. Design Process and Philosophy of Frank Owen Gehry

1) *Personal Vocabulary:* Gehry considers Architecture present around us as modernist and box-like structures. He brings this dry, cold, and unfriendly architecture into question and pursues a new language. He disassembles the boxes into pieces, reassembles them into new shapes, and confronts the sense of order. Gehry's approach towards architecture was through his personal articulation of concepts.
2) *Design Process:* Gehry's concept approach is extremely exploratory and creative. Via slow, careful design studies, he produces his buildings. Once Gehry starts a project, he works from the inside out to understand the problem. Spontaneous, bold drawings are drawn by him before he discovers his sculptural shapes. Sketches gradually develop into a series of models.

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B. Design Process and Philosophy of Daniel Libeskind

1) *Personal Vocabulary:* Libeskind assumes that buildings must be designed as functional as well as poetic spaces that represent contemporary life and the greater cultural sense. Libeskind's design reflects his strong interest in philosophy, art, literature and music.
2) *Design Process:* Libeskind uses uncommon symbols of architecture. The entrance to the Jewish Museum extension. He wants to illustrate here that Jewish history is not shallow or solitary, but it is part of the history of Berlin and that it cannot be separated. "Lines" are other important means for Libeskind to express his symbolism.

III.PARAMETERS EXTRACTED THROUGH LITERATURE STUDIES FOR ANALYSING OF CASE STUDIES

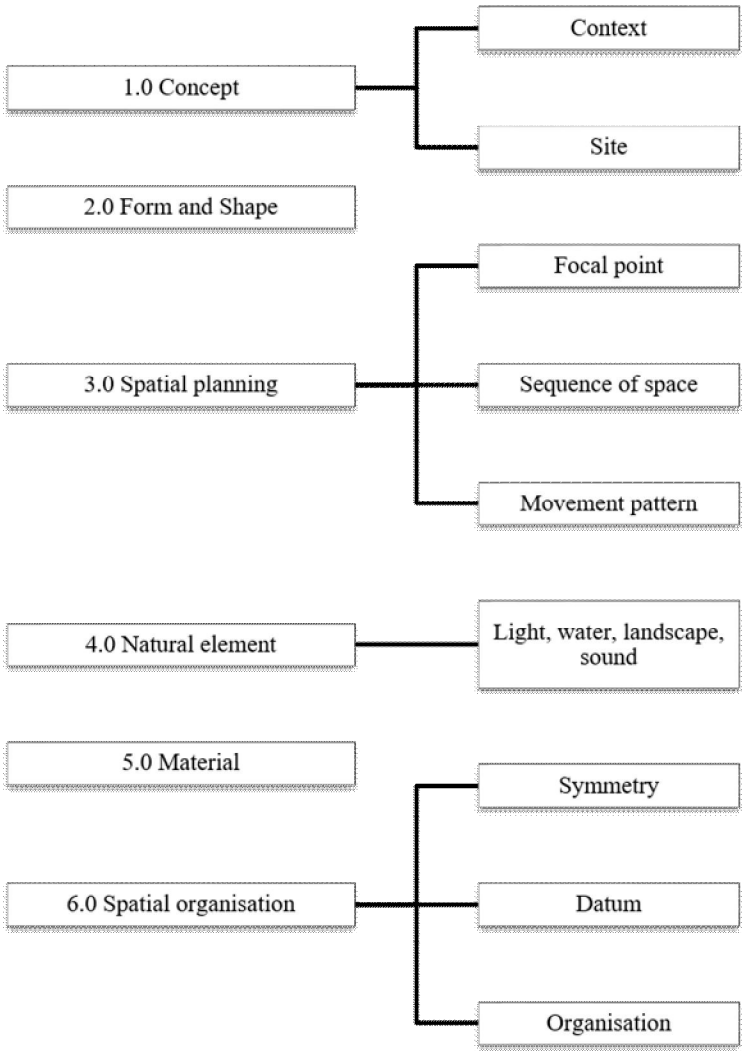

Fig. 1 Extracted Parameters

A. Elaborating Parameters

1) *Concept*

a) *Context and Site:* The context of the building affects the design as it forms a premise for the concept.

2) *Shape and Form:* The shape of an object is determined not only by its boundaries may, in turn, influence the way boundaries are seen. The shape of an object is depicted by spatial features that are considered essential. Perceptual shape may change considerably when it's spatial orientation or environment changes. Certain memories or experiences with a particular object are the factors on which shape depends. Form covers the modulations of solids and their transformed properties such as tapering, twisting, concavity and convexity. A shape of two dimensions becomes a form of three dimensions. In a design the form of the surface plays a crucial role in defining the experience of the place.

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3) *Spatial planning*

a) *Focal Point:* The focal point becomes the feature that attracts one focus when moving through a built space. The numerous spaces of a building have several focal points. Sometimes a single space has several focal points. So the pause point is actually dominated by a Focal Point, since it is the reason behind the pause. When seen from the point of pause, the focal point is nothing but the view.

b) *Sequence of Spaces:* The space sequence is nothing more than the layering of spaces. The movement sequence depends on the division or the sequence of spaces. Generally, a threshold space marks the bifurcation between two spaces. This becomes an intermediate space marker between two spaces

c) *Movement Pattern:* The pattern of movement varies in accordance with the function of the building and the socio-cultural construct revolving around it. The movement sequence depends on the pattern of the movement.

4) *Natural Element (Light, water, landscape, sound)*

a) *Natural Light:* Natural light brings a different sense to the space and is fluid as the quality of light varies according to the day and weather.

b) *Landscaping:* Landscaping gives the built space a human touch.

c) *Water:* In addition to cooling the wind, water body helps in relaxing the mind.

d) *Sound:* Sound pitch gives the feeling of sorrow or thrill.

5) *Spatial Organisation*

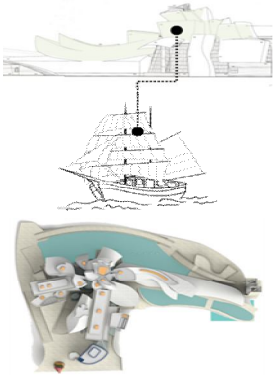
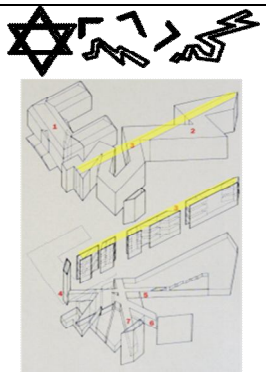
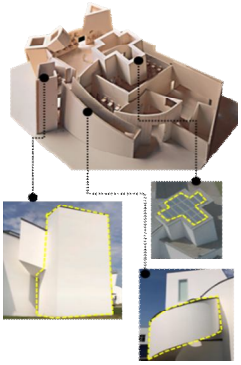
a) *Symmetry:* The symmetry is the visual balance maintained through a particular axis. The focus is constant in symmetrical compositions hence are easily readable.

b) *Datum:* A datum refers to a line, plane, or volume of reference to which other elements in a composition can relate. It organizes a random pattern of elements through its regularity, continuity, and constant presence. It is a form which binds other spatial elements.

c) *Organisation:* They basically comprise of Axis, Hierarchy, Rhythm, Transformation

IV. CASE STUDIES AND INFERENCES

Expression can be in many ways but in this Research work Concept, Form and Shape, Spatial Planning, Natural Element, Material and Spatial Organisation of the Museum architectures is taken.

Parameters	Guggenheim Museum	Jewish Museum	Vitra Design Museum	Inference
Concept	 Fig. 2 conceptual figures Nautical Image on Elevation, Guggenheim Museum	 Fig. 3 Distorted Star of David taken as design concept Jewish Museum	 Fig. 4 Vitra Design Museum	The historical depiction along with functionality can be taken as concept of the Museum architecture
	The nautical imagery is given as city's history and industrialized maritime Centre whose early fortune were derived from its 19th century ship building industries.	Distorted star of David is seen throughout the building as a symbolic form generator. Sequence of 60 sections continuous that are along the zig zag represents Stations of the Star'	Frank O Gehry used simple geometric shapes against a cubic volume in the case of Vitra Museum Design, unifying them all with white plaster surfaces and zinc roofing.	

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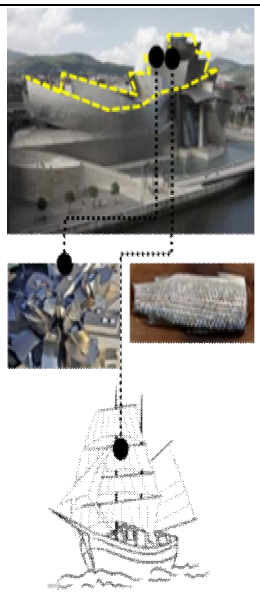
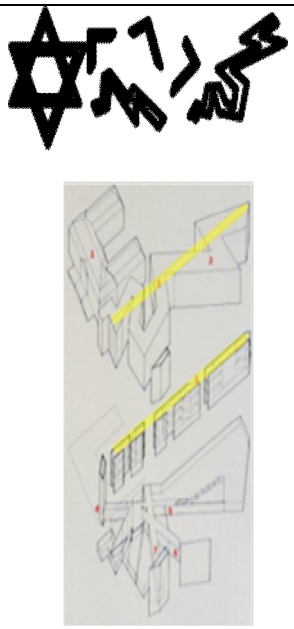
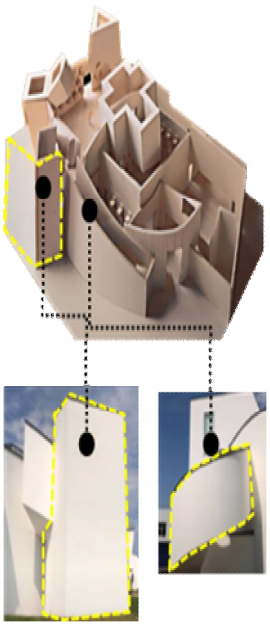
Form and Shape				Historical depiction is showed through the form of the structure. In some of the cases form can be in harmony with the plan.
	The analogy of the fish with head and tail chopped off is built on nautical theme of ship and dynamism of river. From above it resembles a flower. It is a monumental sculpture having chaotic abstract look to it.	Distorted star of David is seen throughout the building as a symbolic form generator. Sequence of 60 sections continuous that are along the zig zag represents Stations of the Star'	A functional mix of towers, ramps and cubes, the volumes of the building are determined by lighting and programming of space necessities	
Spatial Planning	 Fig. 5 movement pattern of Guggenheim Museum	 Fig. 6 movement pattern of Jewish Museum	 Fig. 7 movement pattern of Vitra Design Museum	In museum building the movement pattern can vary according to the user's movement and pauses.
	Movements throughout the building follow the radial path as the Ground Floor. Although the movement pattern may be rigid but changes due to interplay of passages and corridors	There is a Composite path for circulation. Three linear axes lead to different design elements Exhibition Space, Holocaust Tower and Garden of Exile	There is a Composite path for circulation to the other parts of the building. Entrance is further channelized to other parts of the building.	

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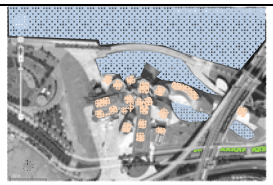
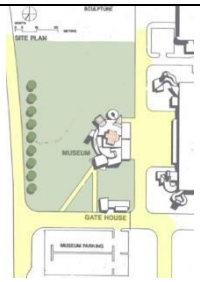
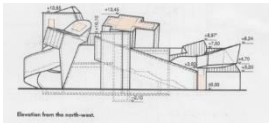
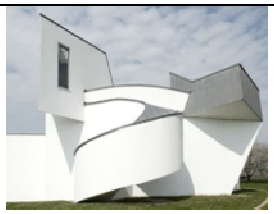
Natural Element	 North elevation Fig. 8 Natural Elements Water, Landscape, Light	Section cc' Fig. 9 Natural Elements Landscape, Light, Sound	  Fig. 10 Natural Elements Landscape, Light	Careful design of light can change the experience of the same space. Light also encourage the visitor to contemplate the space well.
	Through Light wells in upper galleries, daylight is bought into square shaped lower galleries. Mobil filters are installed that are removed in winters and can be reinstalled against strong sunlight of summer. Natural filter light is installed to Soften the glare	Element of light is used create experience within the building. Plan of city Berlin was projected to create a haphazard pattern by the Architect whose effect inside is totally astonishing.	Vitra Campus offers plenty of openness and context of a free built environment. Cross shape serves three main rooms of the museum	
Material	In Atrium stairs and lifts are hidden behind large glass scales reminiscent of a moving fish. Fig. 11 Material used in Guggenheim Museum	Fig. 12 Material used in Jewish Museum	 Fig. 13Material used in Vitra Design Museum	Materials can give specific notion of feelings or occurred event.
	Scale of fish shown by titanium plates. The shallow dents created by fixing clip for each of the panels enhance shimmering effect as the surface appears to reflect sunlight. The textural play of titanium against glass and stone makes the entire building live.	Floor Slab is made of reinforced concrete are supported by the concrete beams The main building covered completely in zinc. The voids are cast with concrete and exterior cladded with zinc it is the result of superimposition of two different schemes	Usual mix of materials was not opted, but limitation of white Plaster and a Titanium-Zinc alloy was seen on the entire structure.	

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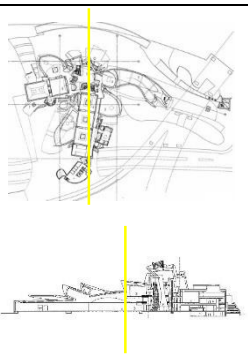
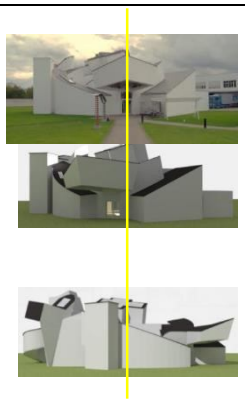
Spatial Organization	 North elevation Fig. 13 Asymmetry on façade and Section	Fig. 14 Symmetry on internal axis	 Fig. 15 Asymmetry on Facade	Only asymmetry must not be a parameter to analyse a Deconstructivism building
	Asymmetry can be seen throughout the building plan and elevation	Though symmetry is negligible outside the building but it can be seen in some parts of Interior of the building.	Symmetry is negligible from outside forming a basic factor of deconstruction buildings.	

V. CONCLUSION

A. Concept

One of the bases for germination of design idea into design is context which forms a pillar for concept. Interpretation of context and historical association can be the factor to use certain materials. The emotion, fascination etc. are depicted through the deconstruction museum architecture.

B. Form And Shape

Erratic proportion in deconstruction buildings is seen, as a result of which absence of geometry and proportion is visible throughout creating extreme human experience. The form of Deconstruction Museums varies according to the Design process adopted by Architect and is taken as a paramount thing opposing modernism structures.

C. Spatial Planning

Element of surprise is used for an efficient movement in space, there should be flexibility in spatial planning so that the people are allowed to pause, change direction, examine things present in the surrounding. The corridors can be broken into small parts through haphazard and chaotic circulations. This movement leads to certain different ways addressing different things or displays and engage visitors mind.

D. Natural Element

Natural elements present in the surrounding plays a major role for enhancement of the entire project. It not only plays a role for aesthetics rather gives a meaning to the entire project in any ways either symbolically or for direction. Light can be used as a prime reason for involuntarily pauses throughout the structure. By careful articulation of natural elements we can have different experiences within the same enclosure.

E. Material

Materials have ability to define the user's experience, so in these structures these can be used accordingly. Eg- Reinforced concrete can seem unfriendly, mirror glass offers a sense of impenetrability (separateness), and glass is a sign of twentieth century. In order to create different experiences, the use of different materials can be applied.

F. Spatial Organization

By introducing physical barriers monotonicity of structure can be broken. Continuation of similar material can enhance visitor's experience. Sometimes it also symbolises a specific event or emotion. Deconstruction Architecture unlike other does not follow any of the set patterns thus neglecting any other conventional theories so there can be scope for innovation.

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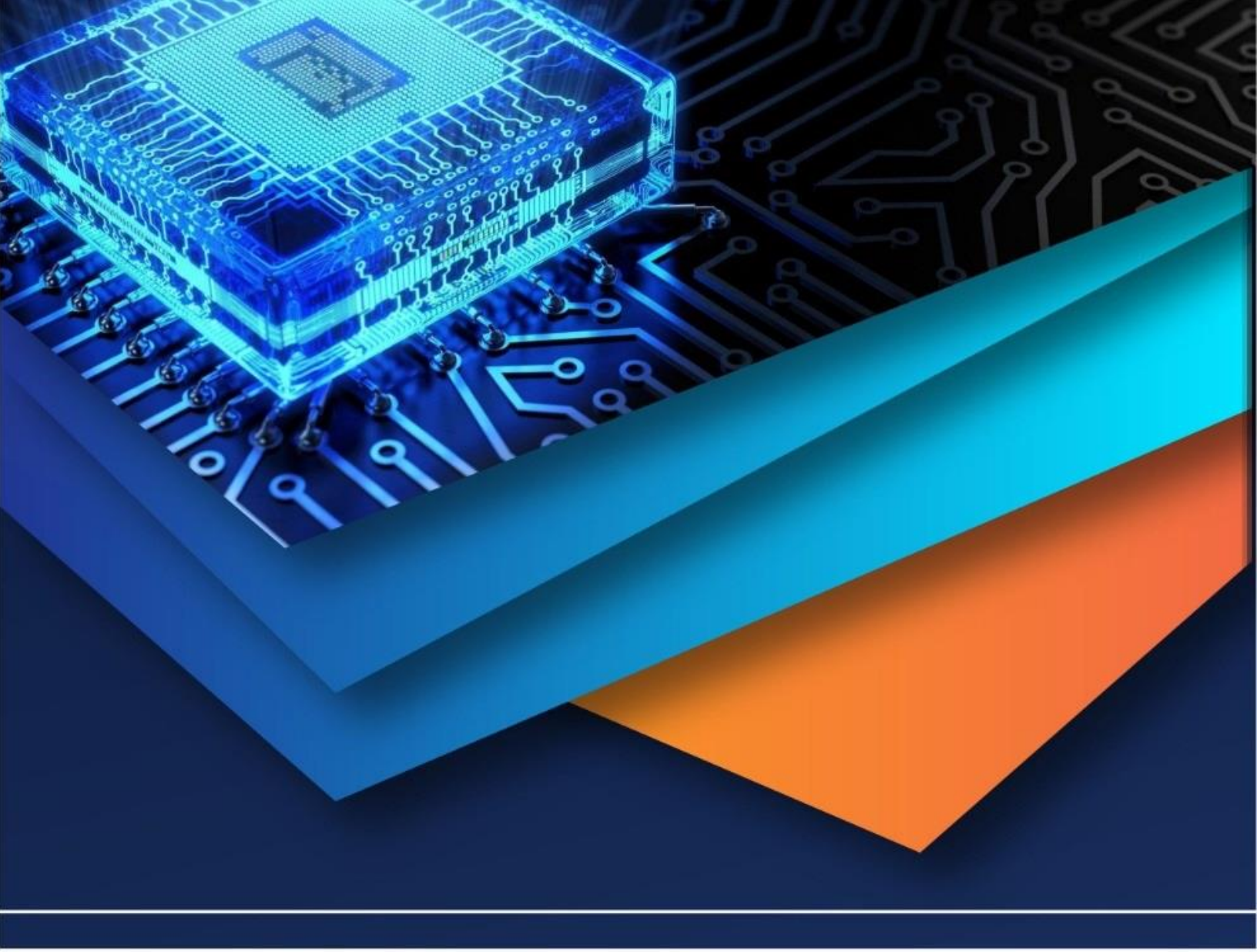

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