# **Effect of Geopathic Stress on Pavement Distresses** B.H.Chafekar<sup>1</sup>, G.P. Jarad<sup>2</sup>, S.S. Pimplikar<sup>3</sup> N.P. Dharmadhikari<sup>4</sup>, A.G.Kharat<sup>5</sup>, R.R.Sorate<sup>6</sup>

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**ABSTRACT:** This paper deals with the investigation of Geopathic Stress Zones along the road. The energy from the earth at specific locations that have the ability to change the normal functioning of human system is called Geopathic Stress. Detection of geopathic location has been done by Experimental investigations on road alignment of one KM, performing distresses survey, dowsing and by magnetic field detector to investigate the Geopathic Stress. Due to such energies emitted by the earth distresses occurs on road pavements. It is found that, inside geopathic stress a copper L rod gets deflected, also get abrupt changes in magnetic field where the distresses occurs.

Key word: Pavement distresses, Geopathic Stress, Dowsing, and magnetic field detector.

#### 1. INTRODUCTION

The word Geopathic is derived from two Greek words: "geo" means" "of the earth" and "pathos" means "suffering" or "disease". The word "geopathic" literally means suffering or disease of the earth.

Energies from earth at specific locations which are have an ability or power to change the function of normal body which working, are often known as negative energies.

Geopathic Stress is the Earths vibrations which rise up through the Earth and are distorted by weak electromagnetic fields created by subterranean running water, certain mineral concentrations, fault lines and underground cavities. The vibration distorted becomes abnormally high and harmful to living organisms.

The reasons for GS are disturbances caused not only by underground water (either flowing or stagnant), but also natural calamities like earth quakes, geological structures such as ore deposits and man-made structures such as mining or large buildings, foundations, sewage and water pipes, underground transport systems. These things create harmful radiations and generate heat which affects the person's health that sleeps on GS. The electro-magnetic pollution in the form of overhead or underground cables, phone masts and electricity generating stations or sub-stations also has a harmful impact on human body and mind.

The inner earth vibrations are 8Hz (Lamda) as it rotates. But the vibration of the place where the GS locates has much higher frequencies. If the inner earth's vibration of 8Hz (Lamda) crosses a water vein 80 - 160 meters underground,

Stress lines are created which vibrate up to 250Hz. Such frequency anomalies are said to cause disturbances in the

immune system, behavioral pattern and cell structure of a person similar to the effects of EMFs.

The water rapidly flowing through rock gives rise to an electromagnetic field which can affect the health of those living above it.

#### 2. EFFECT OF GEOPATHIC STRESS

#### 2.1 Human health.

Grman scientist and a talented dowser, who published a book called "Earth Currents-causative factor of cancer and other diseases" has concluded that 2.5% of the earth's surface is affected by geopathic stresses i.e. illness causing stresses from the earth.

Tromp (1949) hypothesized that the human system passing at high speeds through a field would undergo changes on approaching conductor such as a groundwater stream of water and the body skin potential will decrease. He postulated that the relative conductivity of soil and the groundwater stream, along with the speed of movement, conductivity of the atmosphere would affect initial skin resistance. This hypothesis is of specific importance as it relates to the movement of human system with speed over underground water veins. This may throw more light on the aspect of accidents on mysterious spots on highways



Figure 1

Following Symptoms may be associated with the Geopathic Stress

Headaches, sinus ache, Depressed, anxious/nervy, no zest for life, Irritable, short fuse, Poor appetite, food problems, allergies, Often get static shocks, Insomnia, restless, wake up feeling tired, Vivid dreams, nightmares, Muzzy headed memory loss, Feel the cold especially hands & feet, the baby continually cry or infants wet bed, sleep walk ,Ear problems, tinnitus

Research shows that chronic disease like arthritis, cancer is associated with Geopathic stress.

2.2 Plants and Animals

Cats, Ants, Bees, Fungi, Bacteria attracted to negative energies,

As shown in figure2.



figure 2

Above in figure 3 these animals sleep in good energy places.

Trees are not properly grown up in stress zones. Trees may bend leaves to save from the negative energies. 2.3 Road Accidents

During the detail investigation of whether the Geopathic Stress is a major cause of road accidents

at typical black spots, S.S.Pimplikar (2010) observed that severe pavement distresses were visible at the accident locations, particularly even in newly constructed pavements.

These included both the pavement type's i.e. concrete pavements and Bituminous Pavements

Bradna (2002), based on a research examining the causes of traffic accidents in relation to groundwater zones carried out in western Europe and in the Czeck. Republic has summed up in his work "The Influence of Hydro pathogenic zones on Drivers". The work is based on long-term statistics of accidents in concrete localities

The inferences are that the frequency of sensitive drivers reacting strongly to the influence of the ground waters, geological faults and mineral ore veins range from 15 to 20%. This has been one of the causes of accidents accepted in foreign countries.

## **3. GEOPATHIC STRESS AND ROAD ENVIRONMENT**

Matter and energy are universal. Both of them can be converted from one form into another. The D.N.A. molecule is the basis of the biological species while the atom is the basis of the physical bodies. The "Chaitanya", the vital force, exists in the biological species, which is absent in the physical bodies. Nevertheless, stored form of energy does exist in the physical bodies. Except the difference as mentioned above, physical bodies as well as biological species can be considered similar. In fact modern science is discussing concept of "Universal consciousness", at large.

Extensive research on geopathic stress has shown that when human bodies, are continuously exposed to the stress, cancerous growth occurs. Also, draining out of energy is another symptom. Mag (1995) has reported existence of spiraling energy at the crossing of underground water veins. He further reports that trees which receive this corkscrew energy have exhibited un-natural growth. Assa (2004) has attributed that the intersection of water veins may be either "Yang" with a charging energy or "yin" with a discharging energy. "Yang" causes cell enlargement and cell proliferation whereas "yin" causes inflammation and immune problems. At the particle physics level, all objects, animate or in animate are ultimately photoning.

Road infrastructure is very important for any country. Expressways and highways are assets. User safety and economy are fundamental to any transportation planning process. The fatality rate in the country needs to be reduced. In the planning process the location aspect of the roads has been given significant importance. However, the effect of the earth radiations arising from the nadir direction has not been adequately considered. This has resulted in attributing the cause

of accidents occurring at typical locations, where engineering parameters normally considered do not exist, as mysterious or unknown.

The effect of the earth radiations on the human being as well as the pavement surface needs to be carefully determined in the early planning phase of any transportation system. This will enable to identify a few feasible alternatives, and then select the best one.

Geopathic stress should be considered as an additional design parameter. Professional bodies like the Indian Road's Congress (IRC) should investigate into this aspect.

Empirical evidence of severe distresses in pavements on geopathically stressed locations has opened up an emerging area of research; the structural evaluation of distresses at accident spots. Whether the distresses themselves significantly contribute in causing the accidents may be a further area of investigation.

## 4. PAVEMENT DISTRESSES

Now a day's government authority consider as assets to the pavements. Because of large investments is made for pavements. Also that investment is for long term. Generally the

Pavements fails to give the service to its lifespan of pavement, one of the reason is due to distresses in pavements.

There are two types of pavements as Flexible pavements and rigid pavements.

The discussions of problems related to pavement distress are generally based on whether the pavement has a concrete or bituminous surface type. Common distresses are identified from this literature as Longitudinal cracking, corner cracks, spalling, patching, surface deteriorations, joint condition, map cracking, transverse cracks etc. Some of the distresses photographs shown in Fig. 3 to Fig. 8.as Corner crack (Fig.3, 4&7), pumping in action (Fig. 5), polished aggregate (Fig.6), surface deterioration (Fig.8).







figure 3 Corner crack figure 4 Corner crack figure 5Pumping in action figure 6 polished aggregate





figure7Corner crack

figure 8 surface deterioration

## **5. NEED FOR THE STUDY**

After carefully going through above reasons a curious question therefore arises that does the Geopathic stress affect the pavement Materials and cause them to deteriorate?

## 6. OBJECTIVES

To detect the geopathic stress zone along the road. Study the geopathic stress affects on pavements or not? Also to find, is there any relation of geopathic stress and distresses in pavements.

## 7. METHODOLOGY

7.1 Distresses in pavements

# Along with above all possible distresses that occur on pavements, GEOPATHIC STRESS also affect on the pavements is the aim of study of the project.

1. One KM of MDR has been selected which represent the concrete pavement type.

Section of road which is selected which exhibited severe distresses were visually observed at 50m changes recorded and pavement condition rating is done.

After preparation of survey as per 50 m interval chainage, locating the spots or chainage that having the low, moderate and high distresses.

All the observations are recorded in the pavement condition rating form shown in below table.

| Distress Severity and Rating Form |       |   |       |   |    |        |      |       |        |       |    |       |     |       |   |       |       |   |     |          |    |   |   |   |   |
|-----------------------------------|-------|---|-------|---|----|--------|------|-------|--------|-------|----|-------|-----|-------|---|-------|-------|---|-----|----------|----|---|---|---|---|
|                                   | LONGI |   | CORNE |   | ΙE | SPALLI |      | SHATT |        | SURFA |    | CONDI |     |       |   |       | TRANS |   | IS  | Severity |    |   |   |   |   |
|                                   | TUDIN |   | R     |   | NG |        |      | ERED  |        | CE    |    | TION  |     | MAP   |   | EVERS |       | S |     |          |    |   |   |   |   |
| OBSERVATIO                        | AL    |   | CRACK |   |    |        | SLAB |       | DETAR  |       |    |       |     | CRACK |   | ľK    | E     |   |     |          |    |   |   |   |   |
| NS                                | CRACK |   | S     |   |    |        |      |       | IORATI |       |    |       | ING |       |   |       |       |   |     |          |    |   |   |   |   |
| CHAINAGE                          | ING   |   |       |   |    |        |      |       |        | ON    |    |       |     |       |   |       |       |   |     |          |    |   |   |   |   |
| IN M                              |       |   |       |   |    | T M TT |      |       | Ŧ      |       | ** | T M T |     |       |   |       |       |   | TMT |          | ** |   |   |   |   |
|                                   | L     | Μ | Н     | L | Μ  | Н      | L    | Μ     | Н      | L     | Μ  | Н     | L   | Μ     | Н | L     | M     | Н | L   | Μ        | Н  | L | Μ | Н |   |
| 0 TO 50 M                         | 1     |   |       |   | 2  |        | 1    |       |        | 1     |    |       | 1   |       |   |       | 2     |   | -   |          |    | 1 |   |   | 1 |
| 51 TO 100 M                       | 1     |   |       | 1 |    |        | 1    |       |        |       | 2  |       |     | 2     |   |       | 2     |   |     |          |    |   | 2 |   | 2 |
| 101 TO 150 M                      | 1     |   |       | 1 |    |        | 1    |       |        |       | 2  |       |     | 2     |   |       | 2     |   |     |          |    | 1 |   |   | 1 |
| 151 TO 200 M                      |       | 2 |       | 1 |    |        | 1    |       |        | 1     |    |       |     | 2     |   |       | 2     |   |     |          |    |   | 2 |   | 2 |
| 201 TO 250 M                      | 1     |   |       |   | 2  |        |      | 2     |        | 1     |    |       | 1   |       |   | 1     |       |   |     |          |    | 1 |   |   | 1 |
| 251 TO 300 M                      |       | 2 |       | 1 |    |        | 1    |       |        |       | 2  |       | 1   |       |   |       | 2     |   | 1   |          |    |   |   | 3 | 2 |
| 301 TO 350 M                      |       | 2 |       | 1 |    |        | 1    |       |        | 1     |    |       | 1   |       |   | 1     |       |   | 1   |          |    |   |   |   | 1 |
| 351 TO 400 M                      | 1     |   |       | 1 |    |        | 1    |       |        |       | 2  |       |     | 2     |   | 1     |       |   |     |          |    | 1 |   |   | 1 |
| 401 TO 450 M                      |       |   | 3     | 1 |    |        | 1    |       |        |       | 2  |       |     | 2     |   | 1     |       |   | 1   |          |    |   |   | 3 | 2 |
| 451 TO 500                        | 1     |   |       | 1 |    |        | 1    |       |        | 1     |    |       |     | 2     |   |       | 2     |   |     | 2        |    |   | 2 |   | 2 |
| 501 TO 550 M                      |       | 2 |       | 1 |    |        |      | 2     |        | 1     |    |       |     | 2     |   | 1     |       |   |     |          |    | 1 |   |   | 1 |
| 551 TO 600 M                      | 1     |   |       | 1 |    |        |      | 2     |        |       | 2  |       |     | 2     |   | 1     |       |   |     |          |    | 1 |   |   | 1 |
| 601 TO 650 M                      | 1     |   |       |   | 2  |        |      | 2     |        | 1     |    |       |     | 2     |   | 1     |       |   |     |          |    | 1 |   |   | 1 |
| 651 TO 700 M                      |       | 2 |       |   | 2  |        |      | 2     |        |       | 2  |       |     | 2     |   |       | 2     |   |     |          |    |   | 2 |   | 2 |
| 701 TO 750 M                      |       | 2 |       | 1 |    |        | 1    |       |        |       | 2  |       |     | 2     |   | 1     |       |   | 1   |          |    | 1 |   |   | 1 |
| 751 TO800 M                       |       | 2 |       | 1 |    |        | 1    |       |        |       | 2  |       | 1   |       |   | 1     |       |   |     | 2        |    |   | 2 |   | 2 |
| 801 TO850 M                       | 1     |   |       |   | 2  |        | 1    |       |        |       | 2  |       |     |       | 3 | 1     |       |   |     |          |    |   |   | 3 | 2 |
| 851 TO 900 M                      |       | 2 |       | 1 |    |        |      | 2     |        | 1     |    |       |     | 2     |   |       | 2     |   | 1   |          |    |   | 2 |   | 2 |
| 901 TO 950 M                      | 1     |   |       | 1 |    |        |      | 2     |        | 1     |    |       | 1   |       |   | 1     |       |   |     |          |    | 1 |   |   | 1 |
| 951 TO1000 M                      | 1     |   | 3     | 1 |    |        |      | 2     |        | 1     |    |       | 1   |       |   | 1     |       |   |     |          |    | 1 |   |   | 1 |

#### From above observations condition rating is 70. It is likely that an overlay will be necessary.

7.2 Dowsing Method-

Table 1

This technique has been using survived for more than a thousand years. The practice is not restricted to any specific work area. Through the world people use it for finding ground water.

In England British society of Dowser has been established in 1993. Similarly in 1961

The American society of Dowser has been established. Both these society's present journals have information on various aspects of Dowsing. Dowsing has used for locating ground water, underground tunnels and also used in medicine field. Photographs are given below about Dowsing in Figure 9 to 12.



#### figure 9

figure 10

f

figure 10

L -COPPER RODS L- COPPER RODS IN STAIGHT L- RODS IN SWINGS AND NEAR TREE BENDS L- RODS TURNS IN CROSS NEAR TREE

figure 9

L –rods are the copper rods of 'L 'Shape is used to detect the ground water veins. Two L rods are held parallel one in each hand. When the dowser is on the edge of a ground water vein the rod swings outwards. The direction of flow can be inferred by positioning oneself on the vein and holding the rod in search position. From chainage 0.00m, these L-rods are

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held in parallel in each hand, and walking as usual along the alignment of the road up to one KM i.e. 1000.00 m chainage.During this survey we locate the various locations where the L-rods abruptly swings *Following are the observation that shows the L- rods positions.* 

| Chainage | POSITION OF L- ROD                         | Visual Clues Recorded                           |
|----------|--|---|
| In M     | (At Nodal Points)                          |   |
| 20.00    | Straight                                   |   |
| 50.00    | Swing (cross each other rod)               |   |
| 70.00    | Straight                                   | Good, free from Geopathic stress                |
| 120      | Swing (cross each other rod)               |   |
| 160      | Swing (turn about 60 degree)               | Ant hill, no plant, road satisfactory condition |
| 188      | Swing (cross each other rod)               | No plant, distresses to road                    |
| 205      | Straight                                   | Good, free from Geopathic stress                |
| 260      | Straight                                   | Good, free from Geopathic stress                |
| 270      | Straight                                   | Good, free from Geopathic stress                |
| 295      | Turn each rod in 900 in opposite direction |   |
| 312      | Swing (turn about 60 degree)               |   |
| 350      | Swing (turn about 60 degree)               |   |
| 375      | Straight                                   | Good, free from Geopathic stress                |
| 400      | Straight                                   |   |
| 420      | Straight                                   | Good, free from Geopathic stress                |
| 470      | Swing (turn about 60 degree)               |   |
| 500      | Turn each rod in 900 in opposite direction |   |
| 580      | Swing (turn about 60 degree)               |   |
| 660      | Straight                                   | Good, free from Geopathic stress                |
| 730      | Swing (turn about 45 degree)               |   |
| 750      | Turn each rod in 900 in opposite direction |   |
| 765      | Turn each rod in 900 in opposite direction |   |
| 833      | Turn each rod in 900 in opposite direction | Tree, temple at Phulenagar                      |

7.3 By Magnetometer

An independent magnetic field survey has been done using a magnetometer to determine the existing magnetic fields along the alignment of the road at 5.00 m interval chainages Readings are taken. The following graph shows the intensity of the magnetic field at the Chainages. Thus from these we locate the Geopathic stress zones. Following is the graph which shows the intensity of magnetic field at different chainages.

For convinence graph divided in 250m chainages as below, Graph 1 to 4.



Graph 1



Graph 2



Graph 3



Graph 4

## 8. Result

From comparative study it seen that there may be exists the geopathicstress along the road pavement where the distresses occurs.

| Chainage   | Locations/chai | Locations         | Locations/chainages where the   | Visual Clues         |  |  |
|------------|----------------|-------------------|---------------------------------|----------------------|--|--|
|            | nages that     | /chainageswhere   | abrupt changes in magnetic      | Recorded             |  |  |
| in M       | detect the     | the L-rods detect | field.                          |                      |  |  |
|            | maximum        | the stresses      |                                 |                      |  |  |
|            | distresses     |                   | (By Magnetic field Detector)    |                      |  |  |
|            |                | (By Dowsing)      |                                 |                      |  |  |
|            | (By Distress   |                   |                                 |                      |  |  |
|            | Survey)        |                   |                                 |                      |  |  |
| 0 TO 50    | Distresses     | Geopathic Stress  | Geopathic Stress Ocuurs         | Trees at 30 m and 60 |  |  |
|            | occurs         | Ocuurs(50 m)      |                                 | m on either side     |  |  |
| 50 TO 100  | Low            | Satisfactory (70  | Very low magnetic field detect  |                      |  |  |
|            | distresses     | m)                | as in between 15 to 22 µTesla.  |                      |  |  |
| 100 TO 150 | Low distresses | Satisfactory      | Very high magnetic field detect |                      |  |  |
|            |                |                   | as in 150m nodal point as 185   |                      |  |  |
|            |                |                   | µTesla.                         |                      |  |  |
| 150 TO 200 | Distresses     | Geopathic Stress  | Very high magnetic field detect | Ant Hill, no plants, |  |  |

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|             | occurs(        | Ocuurs(160 m)     | as in 155&175 m nodal point as   |                      |
|-------------|----------------|-------------------|----------------------------------|----------------------|
|             | Moderate)      | ,                 | 170 & 171 µTesla                 |                      |
| 200 to 250  | Low distresses | Satisfactory (    | Very high magnetic field detect  | Temple, overhead     |
|             |                | 205m)             | as in 240 m nodal point as 180   | water tank both at   |
|             |                |                   | μTesla                           | 50m on either side   |
| 250 TO 300  | Distresses     | Geopathic Stress  | low magnetic field detect as in  |                      |
|             | occurs         | Ocuurs(295m)      | between 30 to 36 µTesla          |                      |
| 300 TO 350  | Distresses     | Geopathic Stress  | Very high magnetic field detect  | Drainage line        |
|             | occurs         | Ocuurs(312m,350   | as in 325,330,335,&340 m         | cross,Ant Hill at    |
|             |                | m)                | nodal point as                   | 340m CH., Trees of   |
|             |                |                   | 165,167,160,170µTesla            | babhul at 50 m       |
| 350 to 400  | Low distresses | Geopathic Stress  | Very high magnetic field detect  | Trees of babhul at   |
|             |                | Ocuurs(400m)      | as in 385&390m nodal point as    | 60m                  |
|             |                |                   | 175 &147µTesla                   |                      |
|             |                | 375m good         |                                  |                      |
|             |                | condition         |                                  |                      |
| 400 TO 450  | Distresses     | Geopathic Stress  | low magnetic field detect as in  | Water pumping        |
|             | occurs         | Ocuurs(470m)      | between 11 to 34 µTesla          | stationat ch.415     |
|             |                |                   |                                  |                      |
|             |                |                   | At 415 ch. Magnetic field detect |                      |
|             |                |                   | as 11 µTesla                     |                      |
| 450 TO 500  | Distresses     | Geopathic Stress  | Very high magnetic field detect  |                      |
|             | occurs         | Ocuurs(500m)      | as in 490&495m nodal point as    |                      |
|             |                |                   | 170 & 163µ Testa                 |                      |
| 500 TO 550  | T 1.           |                   |                                  | 0. 1                 |
| 500 10 550  | Low distresses | Satisfactory      | low magnetic field detect as in  | Straight trees at ch |
| 550 TO 600  | Distrassas     | Georgethia Stragg | low magnetic field detect as in  | Drainaga lina grass  |
| 550 10 000  | Distresses     | Ocuurs(580m)      | between 28 to 35 uTesla          | Dramage mile cross   |
|             | occurs         | Ocuurs(50011)     | between 20 to 55 µ resia         |                      |
|             |                |                   |                                  |                      |
| 600 TO 650  | Distresses     | Geonathic Stress  | Normal magnetic field in         |                      |
| 000 10 050  | occurs         | Ocuurs            | between as 32 to 42 uTesla and   |                      |
|             | Moderate)      | ocuuis            | low as 20 µTesla at ch 650m      |                      |
| 650 TO 700  | Distresses     | Geopathic Stress  | low magnetic field               | Drainage line        |
|             | occurs         | Ocuurs            |                                  |                      |
| 700 TO 750  | Distresses     | Geopathic Stress  | low magnetic field detect as 705 |                      |
|             | occurs         | Ocuurs(730m,750   | to 720m & high 725 to 745 m      |                      |
|             |                | m)                |                                  |                      |
| 750 TO 800  | Distresses     | Geopathic Stress  | low magnetic field               |                      |
|             | occurs         | Ocuurs(765m)      |                                  |                      |
| 800 TO 850  | Distresses     | Geopathic Stress  | Normal magnetic field in         | temple               |
|             | occurs         | Ocuurs            | between as 32 to 42 µTesla       |                      |
| 850 TO 900  | Distresses     | Geopathic Stress  | High magnetic field at ch. 855   |                      |
|             | occurs         | Ocuurs            | to 865m and then very low in     |                      |
|             |                |                   | between as 23 to 29 µTesla       |                      |
| 900 TO 950  | Distresses     | Geopathic Stress  | low magnetic field               |                      |
| 050 50 1000 | occurs         | Ocuurs            | <b>TT1</b> (* 1 1                |                      |
| 950 TO 1000 | Low distresses | Satisfactory      | High magnetic field              |                      |

## 9. FUTURE STUDY

These includes that

- 1. Placing a concrete slab (1:2:4) on geopathic stress and non geopathic stress zones to study the effect of ----
- a) Temperature b) structural NDT evaluations
- 2. Laboratory Evaluation by exploring to powerful radio waves or infrared waves.

## **10. CONCLUSION**

From the comparative study of Distresses survey, L-rod dowsing and Magnetic field detector help us to investigate the Geopathic Stress on road pavement. The variation of stresses are occurs where the pavements have more distresses. Also in that zone trees are also bend their leaves and save them from these energies. At some chainages the L-rod dowsing gets deflected and magnetic field detector gives abruptly lower or higher readings due to the overhead water tanks, temple (at chainage 201 to 250).

Thus there is an also presence of geopathic stress and it affects on soils and also road pavements.

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[ 10]9\_7 Pavement Evaluation - Flexible Pavement Distress.mht.

[11]9\_8 Pavement Evaluation - Rigid Pavement Distress.mht.

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Effects on Health.mht

[13]Geopathic Stress video\ggggg\Geopathic Stress and Animals - Environment - Zimbio.mht.