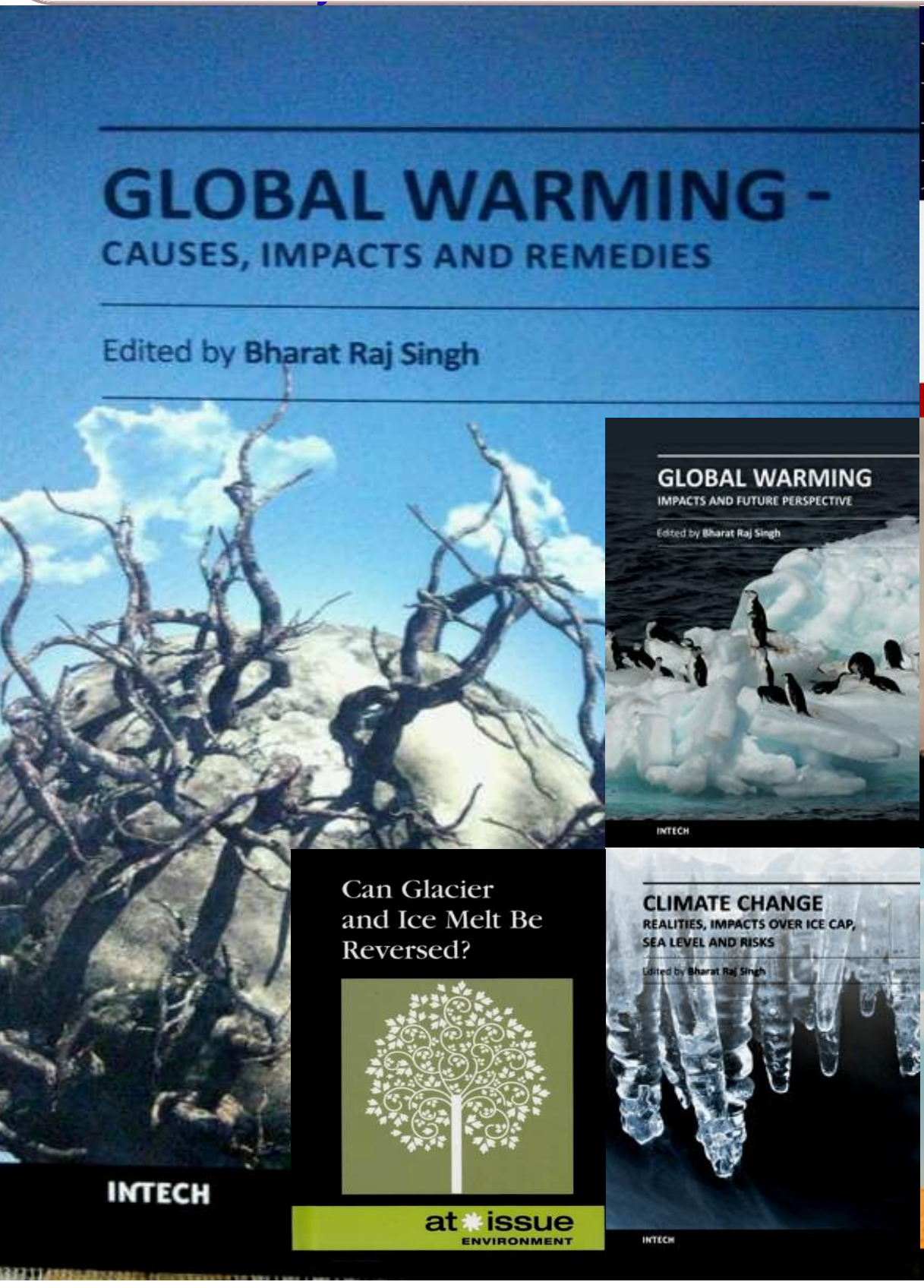
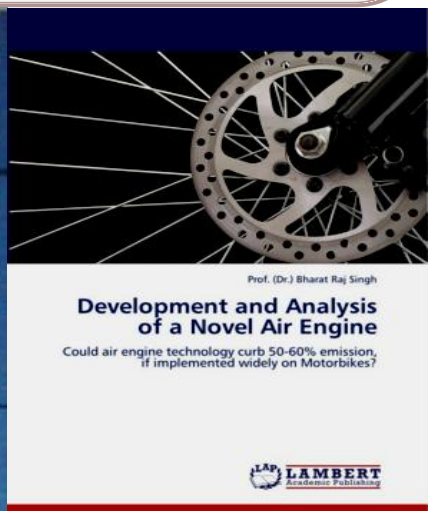
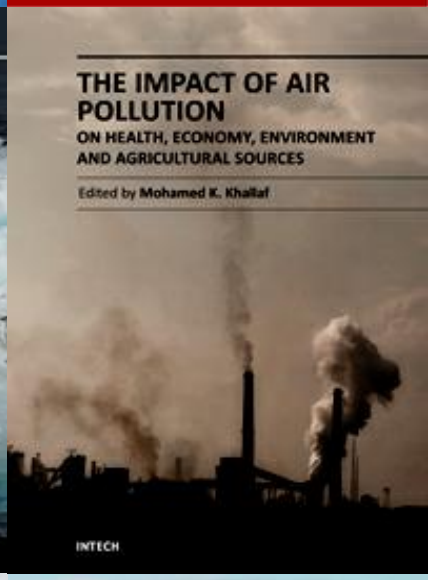
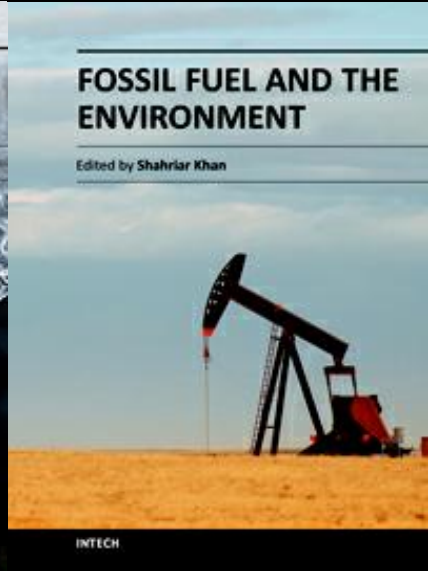
First Indian Scientists Literatures on Environmental Issues Created Impacts Globally

Prof. Bharat Raj Singh
& Prof. Onkar Singh









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2. Claim

First Indian Scientists Literatures on Environmental Issues Created Impacts Globally

2. Claim

2.1 First Indian Scientists Literatures on Environmental Issues Created Impacts Globally

Prof. (Dr.) Bharat Raj Singh, Director of School of Management Sciences, Lucknow, India (*affiliated to UP Technical University*) and **Prof. (Dr.) Onkar Singh**, Head of Department-Mechanical Department, Harcourt Butler Technological Institute, Kanpur (presently, Vice Chancellor, Madan Mohan Malviya University of Technology, Gorakhpur) are the first Indian Scientists who have extensively contributed their work on Environmental Issues, that has been widely acknowledged. Duo Scientists claims that:

- The Air Engine Technology, if widely implemented, may cut down 50-60% of emission being thrown in the atmosphere by light vehicles in June' 2010.
- Also mentioned in Aug' 2011 that, beyond the year 2050, climate change may be the major driver for biodiversity loss globally.
- A serious impact of Global Warming was alarmed in advance in Sep' 2012 that "Heavy Storm could submerge New York City in the next decade" happened just after a month when book was published.
- Climate change effect was sounded in 2013 that the loss of the Arctic sea will cause serious threat to USA, UK and Canada like: Intense storm, Sea level rise, Freezing temperature and extensive human loss. Moreover by giving tips as to how Climate Change could be curbed.
- Recent book on Global Warming published in April 2015, alarms that continuous shrinkage of Arctic sea & Sea level rise can enhance freezing temperature as new challenge to UK & USA and by the end of 21st century there can be change in spinning angle of the Earth due to shifting of huge amount of polar ice to sea-water to the tune of 1100-1450 trillion tonnes. This may cause serious impact on entire creatures of the earth and they may face dire consequences of being end up, provided things are checked and not let go beyond our control today.

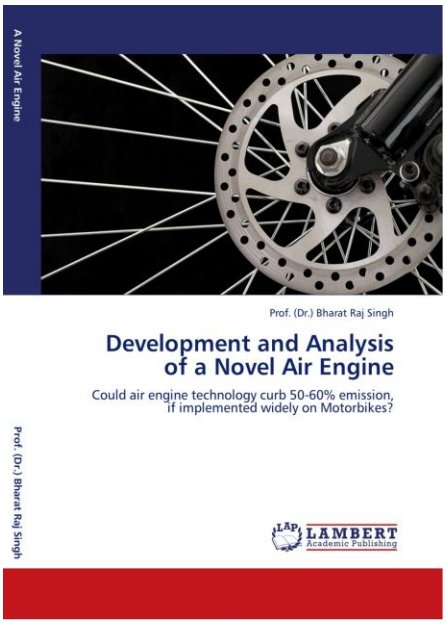
Duo Indian Scientists Prof. Singh & Singh have written 5- books / 7-book chapters; published from Germany, Croatia & USA and more than 100 Technical papers are published in the leading International /National journals and Proceedings of conferences in the last 5 years have greatly helped the society as a whole to act fast and fight against the evil of Climatic Issues on the Earth by changing their living style.

2.2 Supporting Details of Books / Book Chapters

(I). Book: Development and Analysis of a Novel Air Engine

Could air engine technology curb 50-60% emission, if implemented widely on Motorbikes?

By- **Bharat Raj Singh**
Under guidance: **Prof. Onkar Singh**

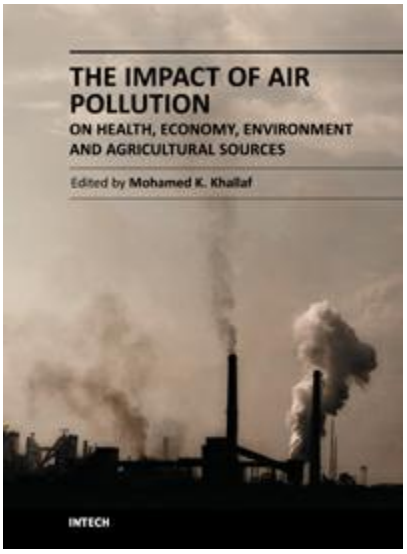


Development and Analysis of Air Engine is an alternative to fossil fuel driven engine for light vehicles. Worldwide focus on search for alternative to fossil fuel has led to emergence of compressed air as one of the potential options. The use of existing compressed air engine technologies are still under development. The novel air turbine considered here works on the reverse working principle of air compressor. The compressed air stored in a cylinder has enough power for running air turbine. The power requirement for running motorbike is considered approx.4-5kW (5.2-6.5HP) and use of such air engine is emission free, though the air is compressed by using electricity. The air powered engine is in infancy & is good alternate to fossil fuel. Thermodynamic modeling includes power output due to flow and expansion power. The performance efficiency of air engine is determined considering the input and output. The investigations and analysis are done by varying the rotor and casing diameters, vane angle, injection angle and injection pressure. The air engine is fabricated for required capacity & experimental setup is carried out for validation of theoretical results.

Duo Indian Scientists claim that if the Air Engine is widely utilized for running light transport vehicles, it will cut down the emission being thrown into the atmosphere by about 50-60% and curb the problems of Global Warming largely.

(II). Book Chapter-8: Influence of the Air Engine on Global Warming Issues - 21stCentury Fuel Technology

Authored by-**Bharat Raj Singh and Onkar Singh**



Global warming or climate change is undoubtedly one of the most important challenges for our future generation, and quite possibly any generation in history. The worldwide scientific community is unanimous in its agreement that global warming is happening, that is our fault, and that the opportunity to stop it is slipping away. If we let it get out of our control, the consequences - which are already evident in most of our lifetimes - will be catastrophic. For example some of the consequences that can be reasonably expected are rising sea levels, frequent and severe natural disasters, large-scale food and water shortages, plagues, massive species extinctions, unprecedented numbers of refugees, intensified ethnic and political tensions, and a global economic depression the likes of which no one has ever seen.

In 1956, the Marion King Hubbert a noted geophysicist predicted that US Fuel reserves may peak by 1975 and fuel crisis will be noticed by 1995. He illustrated the projection with a bell shaped *Hubert Curve* based on the availability and consumptions of the fossil fuel. Large fields are discovered first, small ones later. After exploration and initial growth in output, production plateaus and eventually declines to zero. Thereafter in 2003, Aleklett and Campbell expressed their views that most of the countries will pass through peak oil days by 2010-12 and fuel consumption will reach to 80% by 2020-30 with the current rate of consumption.

In India, vehicular pollution is estimated to have increased eight times over the last two decades. This source alone is estimated to contribute about 70 per cent to the total air pollution. With 243.3 million tons of carbon released from the consumption and combustion of fossil fuels in 1999, India is ranked fifth in the world behind the U.S., China, Russia and Japan. India's contribution to world carbon emissions is expected to increase in the coming years due to the rapid pace of urbanization, shift from non-commercial to commercial fuels, increased vehicular usage and continued use of older and more inefficient coal-fired and fuel power-plants. Thus, peak oil year may be the turning point for mankind which in turn led to the end of 100 year of easy growth, if self-sufficiency and sustainability of energy is not maintained on priority. It may end up a better world as per proceedings of conference held in Architectural Institute, 2004, Concept and Technology- First International Workshop on Sustainable Habitat Systems, at Japan. Presently major thrust is being given to explore wind energy, hydro-power, tidal and nuclear power generation etc. Efforts are also given to energy storage system for the

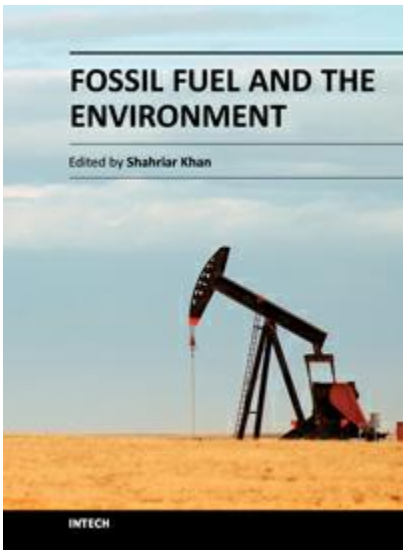
clean energy by conversion system and its better utilization to run prime-moves for light vehicles.

This paper describes about the energy conversion and energy storage system. One of the dominant options is storage of compressed air from easily available atmospheric air which may be compressed by electricity or by alternative energy sources like wind, solar energy etc. or disaster energy sources and stored in the air receiver or storage tanks of suitable size. Such energy could be reutilized as clean energy source for running prime-movers of domestic appliances and light vehicles as a nearly zero pollution fuel sources. The design of air turbine / engine and its different parametric and performance aspect are also elaborated in this article. To maintain sustainability in 21st Century and check the global warming issues to the extent of 50-60%, the storage energy systems and its utilization to run the lighter vehicles or motorbikes by novel and efficient air engine / turbine could be one of the dominant technologies. This may also leads to environmentally and ecologically better future.

Note: *Today's the book is hitting 1,02,864 downloads by readers of all over the world during last 4 years and the chapter-3 alone hits 4311. This chapter is selected for* ***10th anniversary publication*** *by InTech.*

(III). Book Chapter-8: Global Trends of Fossil Fuel Reserves and Climate Change in the 21st Century

Authored by-**Bharat Raj Singh and Onkar Singh**



Today's energy markets are dominated by a substantial increase in energy demand due to the strong economic growth in the developing countries especially in China and India. At the same time it is also observed that the capacity to deliver fossil energy may be limited due to limited production capacity and lack of infrastructure such as pipeline, refining and terminal capacities (CERA, A global sense of energy insecurity). A number of nations are concerned with their security of supply with respect to delivery of power, oil and gas, and we see a development toward more nationalization of energy production and distribution in several nations. Huge investments in production capacity and infrastructure are

needed in many countries to secure necessary access to energy.

Emissions of carbon dioxide due to our use of fossil energy will change the climate and the temperature is estimated to increase by 2 to 6^{o} Celsius within year 2100, which is a tremendous increase from our current average temperature of 1.7^{o} Celsius (IPCC). This will probably cause huge changes to our society, both positive and negative, but the total impact on our society is currently very uncertain.

The global population is expected to increase by 30% the next 25 years, where 80-90% of the increase is expected to be in developing countries (IEA, World Energy Outlook 2004, p 43-46). To be able to establish a sustainable global development, with growth in population and living standard, it will probably be necessary to develop renewable and cleaner energy sources, improved energy efficiency and mechanisms that make it attractive to utilize new technology.

The 30 year update claims that the global system is currently in an un-sustainable situation, and that there are limits to growth on our planet – on resources, food, environment, and also in the population the earth can supply over time. If we do not act soon to establish a sustainable world, we will probably face enormous challenges in providing goods, energy and food to the population and we will probably experience recession, hunger, conflicts, reduced living conditions and maybe a significant reduction in population.

This study describes some of the background for the scenario analysis such as: potential impacts of changes in the energy resource situation, both fossil and renewable, impact on global climate, important geo-political issues and major global trends which can have an impact on the energy as well as climate.

The study concludes that beyond the year 2050, climate change may be the major driver for biodiversity loss globally. The climate problem affects everyone, and everyone has a stake in deciding what should be done. It is for you to decide what actions you should take as an individual (in your home, your car, and so forth). Equally important, as a citizen you must decide which policies to support or oppose and make every one aware about disastrous consequences of the situation.

Note: *Today's the book is hitting 44, 214 downloads by readers of all over the world during last 3 & 1/2 years and the chapter-3 alone hits 7254.*

(IV). Book / Book Chapter-3: Study of Impacts of Global Warming on Climate Change: Rise in Sea Level and Disaster Frequency

Authored by-**Bharat Raj Singh and Onkar Singh**

Book-**Global Warming - Impacts and Future Perspective**

Edited by Bharat Raj Singh, ISBN 978-953-51-0755-2, **DOI: 10.5772/2599,** *364 pages, Publisher: InTech, Chapters published September 19, 2012 under CC BY 3.0 license*

Global warming and climate change refer to an increase in average global temperatures. Natural events and human activities are believed to be main contributors to such increases in average global temperatures. The climate change, caused by rising emissions of carbon dioxide from vehicles, factories and power stations, will not only affects the atmosphere and the sea but also will alter the geology of the Earth. Emissions of carbon dioxide due to our use of fossil energy will change the climate and the temperature is estimated to increase by 2 to 6^{o} Celsius within year 2100, which is a tremendous increase from our current average temperature of 1.7^{o} Celsius as predicted by IPCC. This may cause huge changes to our civilization, both positive and negative, but the total impact on our society is currently very uncertain. Forecasts indicate that major storms could devastate New York City in next decade whereas Gulf countries will get affected badly well before.

Global warming primarily caused by increases in "greenhouse" gases such as Carbon Dioxide (CO_2), Nitrous oxide (NOX), Sulphur dioxide (SO_2), Hydrogen etc.,. A warming planet thus leads to climate changes which can adversely affect weather in different ways. Past decade, according to Scientists in 48 Countries, it was recorded warmest time phase during meeting of National Oceanic and Atmospheric Administration (NOAA), on July 28, 2010. Although since decades, scientists and environmentalists have been warning that the way we are using Earth's resources is not sustainable. Alternative technologies have been called for repeatedly, seemingly falling upon deaf ears or, cynically, upon those who don't want to make substantial changes as it challenge their bottom line and reduces their current profits. Global warming in today's scenario is threat to the survival of mankind. In 1956, an US based Chief consultant and oil geologist Marion King Hubert, (1956) predicted that if oil is consumed with high rate, US oil production may peak in 1970 and thereafter it will decline. He also described that other countries may attain peak oil day within 20-30 years and many more may suffer with oil crises within 40 years, when oil wells are going to dry. He illustrated the projection with a bell shaped Hubert Curve based on the availability and its consumptions of

the fossil fuel. Large fields are discovered first, small ones later. After exploration and initial growth in output, production plateaus and eventually declines to zero.

Crude oil, coal and gas are the main resources for world energy supply. The size of fossil fuel reserves and the dilemma that when non-renewable energy will be diminished, is a fundamental and doubtful question that needs to be answered. A new formula for calculating, when fossil fuel reserves are likely to be depleted, is presented along with an econometrics model to demonstrate the relationship between fossil fuel reserves and some main variables (Shahriar Shafiee et.al. 2009). The new formula is modified from the Klass model and thus assumes a continuous compound rate and computes fossil fuel reserve depletion times for oil, coal and gas of approximately 35, 107 and 37 years, respectively. This means that coal reserves are available up to 2112, and will be the only fossil fuel remaining after 2042.

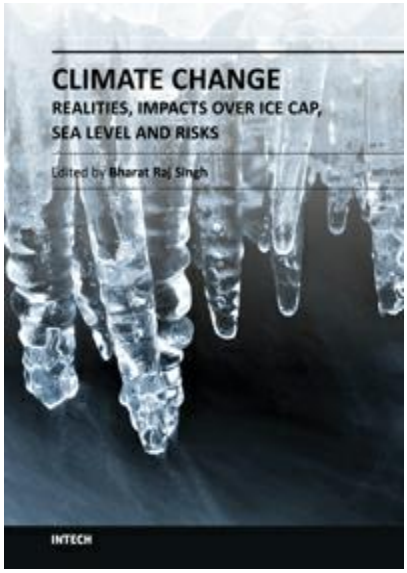
In India, vehicular pollution is estimated to have increased eight times over the last two decades. This source alone is estimated to contribute about 70 per cent to the total air pollution. With 243.3 million tons of carbon released from the consumption and combustion of fossil fuels in 1999, India is ranked fifth in the world behind the U.S., China, Russia and Japan. India's contribution to world carbon emissions is expected to increase in the coming years due to the rapid pace of urbanization, shift from non-commercial to commercial fuels, increased vehicular usage and continued use of older and more inefficient coal-fired and fuel power-plants (Singh, BR, et al., 2010). Thus, peak oil year may be the turning point for mankind which may lead to the end of 100 year of easy growth, if self-sufficiently and sustainability of energy is not maintained on priority. This chapter describes the efforts being made to explore non-conventional energy resources such as: solar energy, wind energy, bio-mass and bio-gas, hydrogen, bio-diesel which may help for the sustainable fossil fuel reserves and reduce the tail pipe emission and other pollutants like: CO_2, NO X etc.. The special emphasis is also given for the storage of energy such as compressed air stored from solar, wind and or other resources like: climatic energy to maintain energy sustainability of 21st century. This may also leads to environmentally and ecologically better future.

This chapter also highlighted through in its sub-section: **3.7.2. Major storms could submerge New York City in next decade,** and book was published on Sep' 2012 and after a month of its public domain **Sandy Hurricane** on 31st Oct' 2012 smashed one third portion of New York and was submerged in water, power supply was disrupted first time in New York, Air plane were grounded for 15 days and about 4 lacks people were rescued and shifted to safer place. The book first time got maximum its reading.

Note: *Today's the book is hitting 27, 433 downloads by readers of all over the world during last 3 years and the chapter-3 alone hits 2360. This chapter is selected for* ***10th anniversary publication*** *by InTech.*

(V). Book/ Book Chapter-2: A Study about Realities of Climate Change: Glacier Melting and Growing Crises

Authored by- **Bharat Raj Singh and Onkar Singh, India**.



Book-**Climate Change - Realities, Impacts Over Ice Cap, Sea Level and Risks**
Edited by Bharat Raj Singh, ISBN 978-953-51-0934-1, DOI: 10.5772/3459, 522 pages, Publisher: InTech, Chapters published January 16, 2013 under CC BY 3.0 license

Climate change has ceased to be a scientific curiosity since long, and is no longer just one of many environmental and regulatory concerns. As the Secretary General of United Nations has said, it is the major, overriding environmental issue of our time, and the single greatest challenge faced by environmental regulators. It is a growing crisis with economic, health and safety, food production, security, and other dimensions.

Climate change is expected to hit developing countries the hardest. Its effects; higher temperatures, changes in precipitation patterns, rising sea levels, and more frequent weather-related disasters-pose risks for agriculture, food, and water supplies. The fight against poverty, hunger and disease, and the lives and livelihoods of billions of people in developing countries are at stake. Tackling this immense challenge must involve both mitigation-to avoid the unmanageable and adaptation- to manage the unavoidable while maintaining a focus on its social dimensions.

Earth's climate changes naturally and such changes in the intensity of sunlight reaching the earth cause cycles of warming and cooling that have been a regular feature of the Earth's climatic history. Some of these solar cycles - like the four glacial-interglacial swings during the past 400,000 years - extend over very long time scales and can have large amplitudes of 5 to 6°C. For the past 10,000 years, the earth has been in the warm interglacial phase of such a cycle. Other solar cycles are much shorter, with the shortest being the 11 year sunspot cycle.

Other natural causes of climate change include variations in ocean currents (which can alter the distribution of heat and precipitation) and large eruptions of volcanoes (which can sporadically increase the concentration of atmospheric particles, blocking out more sunlight). Still, for thousands of years, the Earth's atmosphere has changed very little. Temperature and the balance of heat-trapping greenhouse gases have remained just right for humans, animals and plants to survive. But today we're having problems keeping this balance;

because we burn fossil fuels to heat our homes, run our cars, produce electricity, and manufacture all sorts of products, we're adding more greenhouse gases to the atmosphere. By increasing the amount of these gases, the warming capability of the natural greenhouse effect is enhanced. It's the human-induced enhanced greenhouse effect that causes environmental concern, because it has the potential to warm the planet at a rate that has never been experienced in human history.

Shifting weather patterns, threaten food production through increased unpredictability of precipitation, rising sea levels contaminate coastal freshwater reserves and increase the risk of catastrophic flooding, and a warming atmosphere aids the pole-ward spread of pests and diseases once limited to the tropics. Ice-loss from glaciers and ice sheets has continued, leading, for example, to the second straight year with an ice-free passage through Canada's Arctic islands, and accelerating rates of ice-loss from ice sheets in Greenland and Antarctica.

Combined with thermal expansion—warm water occupies more volume than cold—the melting of ice sheets and glaciers around the world is contributing and an ultimate extent of sea-level rise that could far outstrip those anticipated in the most recent global scientific assessment. Climate feedback systems and environmental cumulative effects are building across Earth systems demonstrating behaviors we cannot anticipate.

On 31st August 2012, Scientists have predicted that the Arctic Ocean could be ice-free in summer months within 20 years, leading to possibly major climate impacts. Scientists also said that the *record melt* this year could lead to a ***cold winter in the UK and Europe*****,** as the heat in the Arctic water will be released into the atmosphere this autumn, potentially affecting the all-important jet stream.

This chapter also highlights in its sub-section, ***3.3.1. Sea level rise poses threat to New York City;*** *it is louded by authors that global warming is expected to cause the sea level along the northeastern U.S. coast to rise almost twice as fast as global sea levels during this century, putting New York City at greater risk for damage from hurricanes and winter storm surge.*

Ten basic tips to help stop climate change

Don't have a lot of times, but want to take action? Here are ten, simple, everyday things each of us can do to help stop climate change. Pick one, some, or all. Every little effort helps and adds up to a whole lot of good.

(i) Change a light- Replacing a regular light bulb with a compact fluorescent one saves 150 pounds of carbon dioxide each year.

(ii) Drive less-Walk, bike, and carpool; take mass transit, and/or trip chain. All of these things can help reduce gas consumption and one pound of carbon dioxide for each mile you do not drive.

(iii) Recycle more and buy recycled- Save up to 2,400 pounds of carbon dioxide each year just by recycling half of your household waste. By recycling and buying products with recycled content you also save energy, resources and landfill space!

(iv) Check your tyres- Properly inflated tyres mean good gas mileage. For each gallon of gas saved, 20 pounds of carbon dioxide are also never produced.

(v) Use less hot water- It takes a lot of energy to heat water. Reducing the amount used means big savings in not only your energy bills, but also in carbon dioxide emissions. Using cold water for your wash saves 500 pounds of carbon dioxide a year, and using a low flow showerhead reduces 350 pounds of carbon dioxide. Make the most of your hot water by insulating your tank and keeping the temperature at or below 120.

(vi) Avoid products with a lot of packaging- Preventing waste from being created in the first place means that there is less energy wasted and fewer resources consumed. When you purchase products with the least amount of packaging, not only do you save money, but you also help the environment! Reducing your garbage by 10% reduces carbon dioxide emissions by 1,200 pounds.

(vii) Adjust your thermostat- Keeping your thermostat at 68 degrees in winter and 78 degrees in summer not only helps with your energy bills, but it can reduce carbon dioxide emissions as well. No matter where you set your dial, two degrees cooler in the winter or warmer in the summer can mean a reduction of 2,000 pounds of carbon dioxide a year.

(viii) Plant a tree- A single tree can absorb one ton of carbon dioxide over its lifetime.

(ix) Turn off electronic devices when not in use- Simply turning off your TV, VCR, computer and other electronic devices can save each household thousands of pounds of carbon dioxide each year.

(x) Stay informed- Use the Earth 911 Web site to help stay informed about environmental issues, and share your knowledge with others. Together, we can and do Make Every Day Earth Day!

From the studies following major issues are noticed:

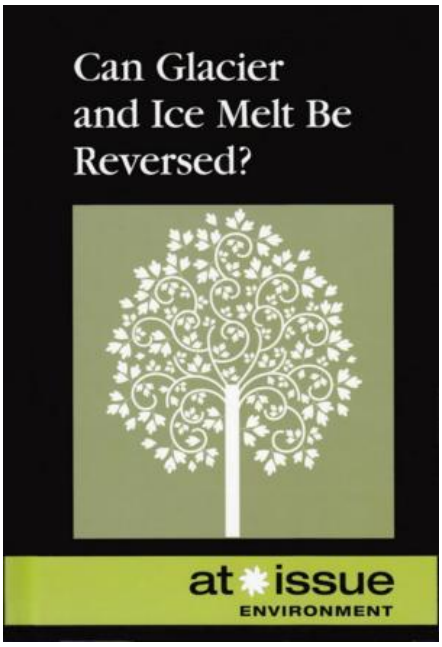
- By the mid-2020s, sea level rise around Manhattan and Long Island could be up to 10 inches, if the rapid melting of polar sea ice continues at same pace.
- By 2050, sea-rise could reach 2.5ft and more than 4.5ft by 2080 under the same conditions.
- Global warming threatens the planet in a new and unexpected way – by triggering earthquakes, tsunamis, avalanches and volcanic eruptions.
- Irene-like storms of the future would put a third of New York City streets under water and flood many of the tunnels leading into Manhattan in under an hour because of climate change.

Climate changes may still be avoided if we transform our hydrocarbon based energy systems and if we initiate rational and adequately financed adaptation programmes to forestall disasters and migrations at unprecedented scales.

Note: *Today's the book is hitting 28,650 downloads by readers of all over the world during last 2 & 1/2 years and the chapter-2 alone hits 2039. This chapter is selected for* ***10th anniversary publication*** *by InTech.*

(VI). Book Chapter-7: The Melting of Glaciers Cannot Be Reversed with Global Warming

Authored by- **Bharat Raj Singh and Onkar Singh, India.**



Bharat Raj Singh is a professor and director of School of Management Sciences, Technical Campus, Lucknow, Uttar-Pradesh, India.
Onkar Singh is a professor at Harcourt Butler Technological Institute, Kanpur, Uttar-Pradesh, India.

Book-**Can Glacier and Ice Melt Be Reversed?"**
At Issue Series;
Authored by- Roman Espejo, ISBN: 978-073-77-6826-8, (2014), Publisher: Cengage Learning Publishing

Ice sheets and glaciers are more vulnerable to climate change than previously estimated. According to a recent study, the Green-land ice sheet may completely melt if a temperature threshold of 1.6 degrees Celsius above preindustrial levels is reached—a rise of 0.8 degrees Celsius has already been recorded. Satellite images also reveal that Arctic sea ice has retreated to a record low in August 2012, and scientists predict that it will disappear during the summers in two decades. Research reveals that 70 percent of sea ice loss in the Arctic results from man-made climate change. These findings are an alarm call for significant reductions in car-bon emissions and a focus on renewable energy sources. Earth's climate changes naturally and such changes in the E intensity of sunlight reaching the earth cause cycles of warming and cooling that have been a regular feature of the Earth's climatic history. Some of these solar cycles—like the four glacial-interglacial swings during the past 400,000 years—extend over very long time scales and can have large amplitudes of 5 to 6°C. For the past 10,000 years, the earth has been in the warm interglacial phase of such a cycle. Other solar cycles are much shorter, with the shortest being the 11 year sunspot cycle. Other natural causes of climate change include variations in ocean currents (which can alter the distribution of heat and precipitation) and large eruptions of volcanoes (which can sporadically increase the concentration of atmospheric particles, blocking out more sunlight). Still, for thou-sands of years, the Earth's atmosphere has changed very little. Temperature and the balance of heat-trapping greenhouse gases have remained just right for humans, animals and plants to survive. But today we're having problems keeping this balance, because we burn fossil fuels to heat our homes, run our cars, produce electricity, and manufacture all sorts of products, we're adding more greenhouse gases to the atmosphere. By increasing the amount of these gases, the warming capability of the natural greenhouse effect is enhanced. It's the human-induced enhanced greenhouse effect

that causes environmental concern, because it has the potential to warm the planet at a rate that has never been experienced in human history....

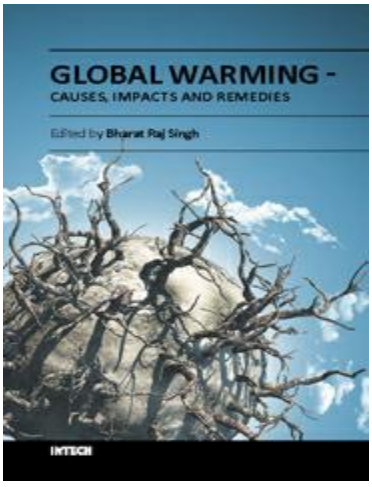
Greenland Ice Sheet May Melt Completely with 1.6 Degrees of Global Warming

The Greenland ice sheet is likely to be more vulnerable to global warming than previously thought. The temperature thresh-old for melting the ice sheet completely is in the range of 0.8 to 3.2 degrees Celsius of global warming, with a best estimate of 1.6 degrees above pre-industrial levels, shows a new study by scientists from the Potsdam Institute for Climate Impact Research (PIK) and the Universidad Complutense de Madrid. Today, already 0.8 degrees of global warming has been ob-served. Substantial melting of land ice could contribute to…

Note: Book-**Can Glacier and Ice Melt Be Reversed?"**
At Issue Series; Authored by- Roman Espejo, **ISBN: 978-073-77-6826-8, (2014),** Publisher: Cengage Learning Publishing, USA is launched on Feb 21, 2014 at New York city as Text book for Students 10-12 standard.
Authors-Prof. Bharat Raj Singh and Prof. Onkar Singh were got opportunity to become "**First Indian Academician Work in US Text Book" and their work included as Chapter-7.**

(VII). Book /Book Chapter-2: Study of Impacts on Continuous Shrinkage of Arctic Sea & Sea Level Rise – Can Glaciers be Growing and Creating New Challenges to UK & USA?

Authored by- **Bharat Raj Singh and Onkar Singh, India.**



Global Warming - Causes, Impacts and Remedies
*Edited by **Bharat Raj Singh** , ISBN 978-953-51-2043-8, 218 pages, Publisher: InTech, Chapters published April 22, 2015 under CC BY 3.0 license, DOI: 10.5772/58506*

Present state of environment and continuous occurrence of natural disasters has made it inevitable for the environmentalists and scientists to extensively study and carry out detailed analysis of the following threats faced by civilization across the entire globe:

• Fast shrinkage of the polar ice and by 2040, there will be no polar ice seen during summer.
• Fast rise in the Sea Level,
• Danger for species like: polar bear etc.
• Ice sheets, where it meets the Atlantic sea, that this area may be affected by cold waves, heavy snow falls and intense storms.
• Permafrost may create further warming which cannot be reversed.

It is evident that the entire Arctic tundra region is melting, the frozen layer of soil known as permafrost is the growing concern and is considered as a threat by the scientists. The permafrost that is formed due to the fossils of the plants is undergoing transformation of being thawed and decomposes under climatic change for the past tens of thousands of years. The continuation of this process is sufficient enough for the releasing of the methane gas causing irreversible global warming. Northern Alaska, USA and some other Arctic regions show the phenomenon of Termokarsts, where the melted permafrost layer lead to the collapse of the ground to hollow.

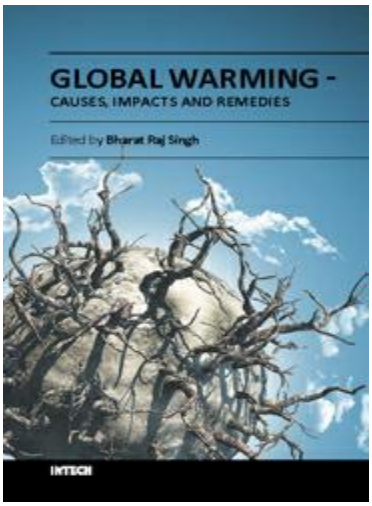
Another consequence is Tundra fires. Studies show that Tundra fires are also being a factor of region warming. The alarming rates of these fires as noted by scientists suggest that the Arctic could turn into a lethal source of methane in not less than a decade. Whole community of the scientists involved, in the research and fieldwork is helping us to understand the growing threat of melting permafrost in the crucial Arctic region. According to Dr. Hansen, our planet is on a dangerous course of passing irreversible tipping points with disastrous consequences. The melting of permafrost in turn releases toxic methane gases, resulting into more warming of the atmosphere. Thus, it is essential to act promptly to avoid further catastrophic warming and stabilize the planet on which all lives depend, as permafrost's melt is a potential source of runaway global warming.
In this paper, authors are focusing mainly on the shrinkage of the polar ice and its serious effects on humanities, especially in January to March in USA and UK as well as on the entire global lively hoods.

- By 2040 only a small amount of sea ice will remain along the north coasts of Greenland, USA and Canada.
- There are possibilities to grow glacier near north coasts due to heavy ice sheets meeting in the Atlantic sea. Ice sheets meeting to Sea-water may not convert quickly into water and create pressure drop, snow fall, extreme temperature drop to minus (-) 60-70 degree centigrade.
- USA & UK northern region may get affected with cold waves, disasters, intense storms, heavy snow falls and living life may not become conducive. The cold waves, extreme temperature drop may force living population in North American and Europeans to find new places for their living.
- Asian region especially India surrounded by three sides from sea and fourth side from Himalayan hills, may also affected badly with cold waves, disastrous intense storms, heavy snow falls nearby Himalayan glacier region; may cause heavy loss to the livelihood.

Note: It is expected that the situation may go bad to burst every year and will continue in till next decade. During winter, New York, Britain and Canada i.e., northern belt, may suffer with extreme weather conditions such as: intense storm, heavy snow fall and power disruption. Since the permafrost melt also confirms as a potential source of runaway global warming due to heavy methane availability, thus it is need of the hour to act very fast to help in stopping Climate Change due to Global Warming by adopting means to ***Save Earth and Save Life*** for happy living.

(VIII). Book / Book Chapter-3: Dire Consequences on Little Shifting of the Earth's Spinning Angle – An Investigation Whether Polar Ice Shrinkage may be the Cause?

Authored by- Bharat Raj Singh and Onkar Singh, India.



Global Warming - Causes, Impacts and Remedies
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Environmentalist and Scientists are now of the opinion that the entire globe may face threats of: fast shrinkage of polar ice due to its melting and may eventually diminish by 2040, fast rise in the sea level, danger for species like: polar bears, penguins etc., northern portion of Canada, USA and UK may be affected by cold waves, heavy snow falls and storms due to shifting and melting of largest ice sheets in the Atlantic sea.

Scientists warn that the warming in the region of Arctic is due to the increment of Permafrost which is also one cause of the Tundra fires. The warming this way cannot be hence reversed and thus the entire Arctic region may turn into a dangerous source of methane from a vast carbon sink in less than a decade.

In view of likely disastrous implications, all the scientists involved, in the research and fieldwork are helping us to understand the growing threat of melting permafrost in the crucial Arctic region. Our Earth planet is on a dangerous course of passing irreversible tipping points with disastrous consequences due to the melting of green land, polar ice and permafrost which in turn releases toxic methane gases, resulting more warming of the atmosphere.

The future of sea level rise cannot be overruled by the ice sheets as they present alarming challenges in predicting their future response. It is calculated by using numerical modeling and

as a result alternative approaches have been explored. A generalized approached is required in this matter to estimate their contribution to the sea level in the future.

In view of better identification and prediction of the melting and rising of the sea level a continuous monitoring via satellite is needed, according to the findings published in Nature Geosciences. According to a survey and readings, the ice sheet covering Antarctica and Greenland contain about 99.5 percent of the earth's glacier ice that has the potential to raise the sea level by 63m (about 200 ft.), if melted completely

Authors have mentioned in the concluding remarks that the planet is on a track to hit 2°C rise in the temperature if major steps to curb climate change aren't taken, and already much of the globe's warming has been absorbed by the oceans.

• Glacier has started a phase of self-sustained retreat and will irreversibly continue its decline. There may be a chance to grow glaciers at northern portion of Canada, USA, UK and may create venerable conditions of snow fall and cold waves in these regions and likely to force for shifting of living population at safer place.

• A calculation shows that between April 2003 and April 2012, the region was losing ice at the rate of 10 billion tons a year.

• By year 2100, if a minimum of 3.6 feet (1.1 Meter) or maximum 10-13 feet (3.4-4 Meters) sea level rise occurs, then it will have a shift of ice melt into water by 397.245 trillion tonnes or maximum 1100-1450 trillion tonnes respectively.

Thus, looking into the weight shift from polar (Northern / Southern coast) to sea, it might create change in the spinning angle of the Earth from 23.43 degree to further (+) or (-). The day may be a dark day on the beautiful planet when the entire living creatures may face dire consequences of their end up, provided things are checked and not to go beyond our control today. Try to imagine the consequences, act fast to "Save Earth; Save Life".

Note: *This entire action may lead to shift of heavy movement of masses of the Arctic sheets to sea and may likely to have an effect on the spinning angle of the earth due to differential changes in masses apart from the above mentioned threats.*

2. Details of Claimant

Name, Date of Birth, Postal Address, Mobile Number & E-mail

2. Details of Claimants:

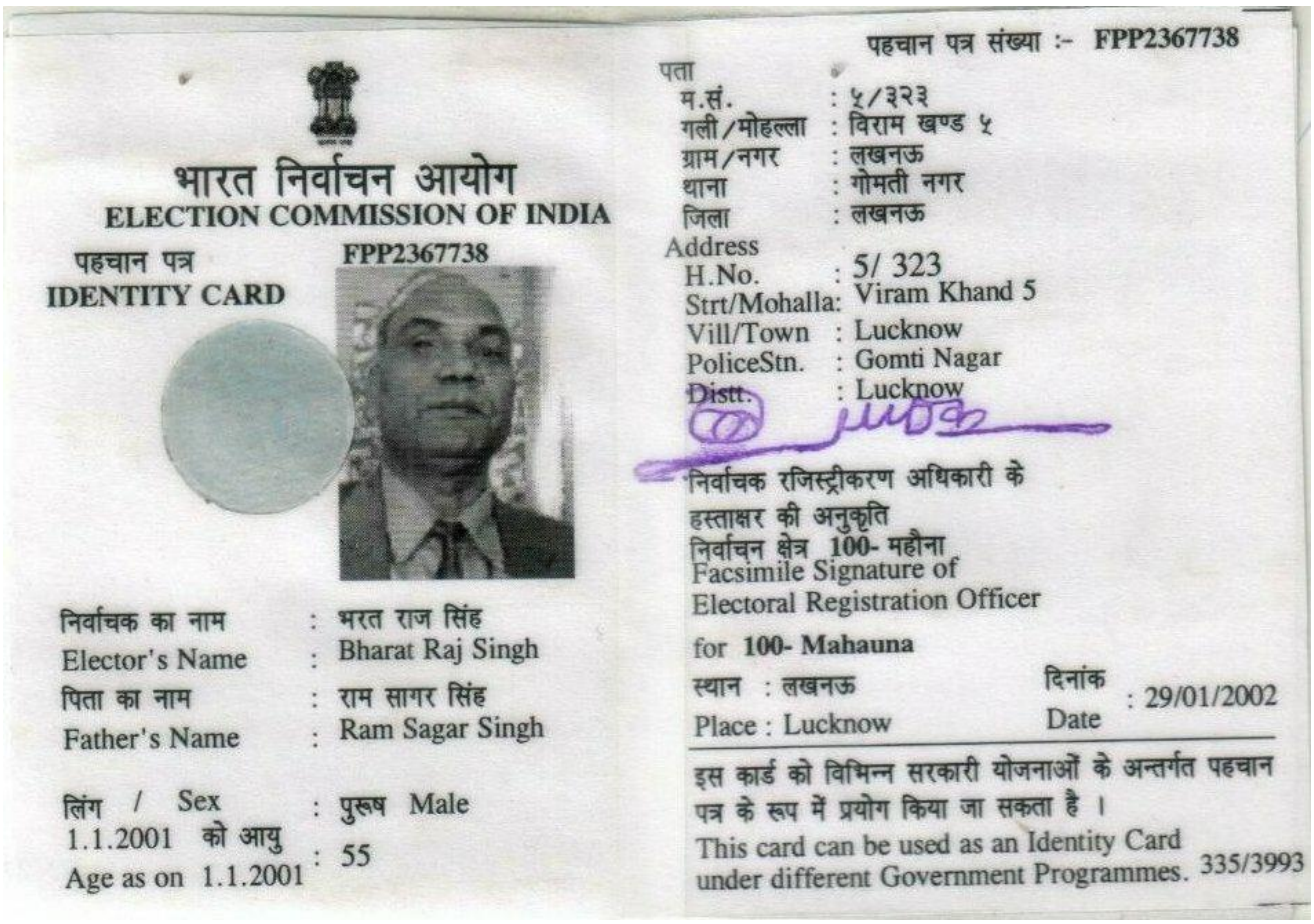
S.No.	Details	Full name of Author-I	Full name of Author-II	Remarks
2.1	Full Names	Prof. Bharat Raj Singh	Prof. Onkar Singh	
2.2	Date of Birth	January 05, 1946	October 08, 1968	
2.3	Postal Addresses	Director, **School of Management Sciences, Technical Campus,** Kashimpur-Biruha, near Gosainganj, Lucknow-226501, UP, India **Residential Address:** 5/323, Viram Khand, Gomti Nagar, Lucknow-226010	Vice Chancellor, **Madan Mohan Malviya University of Technology,** Gorakhpur-**273010** UP, India	
2.4	Mobile Numbers	+919415025825	+919415114011	
2.5	Emails	brsinghlko@yahoo.com	onkpar@gmail.com	
2.6	Copy of Proof of Age & Address	(i) Copy of Passport (ii) Copy of Aadhar Card	-	**Annexure-I**
2.7	Profile of Claimants	(i)Profiles of Prof BR Singh	(ii)Prof. Onkar Singh attached)	**Annexure-II**
2.8	Photographs	i). Photographs with Hon. Governor of Uttar-Pradesh Shri BL Joshi-presenting book: Design & Analysis of Air Engine' on Jan 17, 2012. ii).Photographs with Hon. Governor of Uttar-Pradesh. Shri BL Joshi-presenting book: Climate Change on Jan 27, 2014. iii). Photographs with Prof. Onkar Singh, Vice Chancellor, UP Technical University, Lucknow on May 18, 2015.		**Annexure-III**
2.9	Newspaper cuttings, if any	1. Kalptaru Express Dated: 05-06-2015. 2. City Times, Allahabad, Dated: 05-06-2015. 3. Amar Ujala, Lucknow Dated: 01-06-2015 4. City Times, Lucknow Dated: 23-05-2015. 5. Rashtriya Sahara, Lucknow; Dated: 23-05-2015 6. Hindustan, Lucknow; Dated:22-01-2015 7. Hindustan Times, Lucknow Dated: 22-01-2015 8. Voice of Movement, Lucknow Dated: 02-11-2014 9. Kalptaru Express Lucknow Dated: 30-10-2014. 10. KPCC 89.3, California Dated: 20-01-2011 11. Iran Daily, Iran Dated: 04-07-2010 12. All about Bikes, NY, USA Month: July-2010		**Annexure-IV**
2.10	Television coverage, if any, on a CD	Recorded News–Broadcasted on Doordarshan pertaining to Global Warming		**Annexure-V -**
2.11	A letter from a person of authority, vouching for my record claims			**Annexure-VI**

Annexure-I(i)

Copy of Passport: (Proof of Age)

Annexure-I(ii)

Copy of Voter ID: (Proof of Address)



भारत निर्वाचन आयोग
ELECTION COMMISSION OF INDIA

पहचान पत्र
IDENTITY CARD

FPP2367738

निर्वाचक का नाम : भरत राज सिंह
Elector's Name : Bharat Raj Singh
पिता का नाम : राम सागर सिंह
Father's Name : Ram Sagar Singh

लिंग / Sex : पुरूष Male
1.1.2001 को आयु / Age as on 1.1.2001 : 55

पहचान पत्र संख्या :- FPP2367738

पता
म.सं. : ५/३२३
गली/मोहल्ला : विराम खण्ड ५
ग्राम/नगर : लखनऊ
थाना : गोमती नगर
जिला : लखनऊ

Address
H.No. : 5/ 323
Strt/Mohalla: Viram Khand 5
Vill/Town : Lucknow
PoliceStn. : Gomti Nagar
Distt. : Lucknow

निर्वाचक रजिस्ट्रीकरण अधिकारी के हस्ताक्षर की अनुकृति
निर्वाचन क्षेत्र 100- महौना
Facsimile Signature of Electoral Registration Officer for 100- Mahauna

स्थान : लखनऊ
Place : Lucknow

दिनांक / Date : 29/01/2002

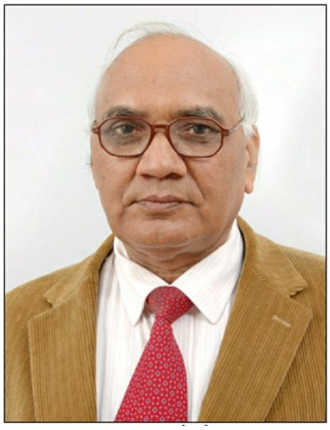
इस कार्ड को विभिन्न सरकारी योजनाओं के अन्तर्गत पहचान पत्र के रूप में प्रयोग किया जा सकता है ।
This card can be used as an Identity Card under different Government Programmes.

335/3993

Annexure-II

(i)Profile of Prof. Bharat Raj Singh, Director,

School of Management Sciences, Technical Campus, Lucknow-227125, Uttar-Pradesh, India.



Dr. Singh was born in 1946 at **Village**: Raibigo, **PO:** Kadipur, District: Sultanpur, UP, India. He received **B.E.** (Mechanical) degree, from SV Regional Engineering College (now SVNIT), Surat, South Gujarat University, India in 1972, **M.E.** (Analysis & Design of Process Equipments), from Motilal Nehru Regional Engineering College (now MNNIT), Allahabad University India in 1988 and **Ph.D.** from U.P. Technical University (now GBTU), Lucknow, India in 2011.

Dr Singh has approx. 4-decades experience pertaining to Industry, Administration and Academics. Served 32 years in various Government Organizations and retired as *Managing Director*, UP Rajkiya Nirman Nigam, Lucknow and has been serving for the last 10 years in academics at various positions and is now working as Professor and **Director-IET, School of Management Sciences, Lucknow**.

Dr. Singh has earned credit for the developmental works in the State of Uttar-Pradesh and has successfully finished projects of about 13-Sugar Mills, 14- Textile Mills, BHEL, Jagdishpur and Varanasi. He had been an instrumental officer in saving of approx. Rs.13 crores from the State Budget of construction works during his tenure as Chief General Manager, UPRNN.

He has set many mile stones in the state of Uttar-Pradesh, while executing projects much before its schedule-period. A few of them are: State Sugar Mill, Rae-Bareilly in 13 months against its schedule of completion period of 48 months (i.e. in January 1980) and BHEL, Jagdishpur insulator plant project in 18-months time against the targeted period of 24 months (i.e. in 1981). For the said achievements, UPRNN was felicitated by the state government for creating new records in the construction field during the year 1981.

Dr Singh is a recipient of many recognitions and awards. A few of them are:

a) ***State scientific award*** by Hon. Governor of Uttar-Pradesh, ***Sri Viswanath Das*** in 1965,
b) ***Best officer award*** for creating land marks in the Project Activities in 1981.
c) ***Samaj Sri National award*** for earth quake relief work in 1994.
d) ***Chief Minister of UP*** recognition in 2003 and
e) ***Shiksha Gaurav -2012 award*** by Uttar Pradesh Award Society.
f) **Year 2012-Certificate of Excellence**- for the Contribution made as **Coordinator (RC-1247), Aakash Workshop organised by IIT-Bombay** at School of Management Sciences, Lucknow held on 10-11 Nov. 2012.
g) **Year 2012-Life Time Achievement Award-2012**-conferred by **International Society of Agile Manufacturing, USA & IIT-BHU, Varanasi** in recognition of illustrious contribution in promoting Engineering & Professional Education on December 16, 2012.
h) **Year 2013-Certificate of Excellence**- for the Contribution made as **Coordinator (RC-1247),** at School of Management Sciences, Lucknow:

(i) **Research Methods in Educational Technology,** held on 2-9 Feb. 2013.
(ii) **Aakash Android Application Programming,** on 23-24th Feb and 2-3rd March' 2013.
(iii) **Database Management System,** held on 21-31st May' 2013.

i) **Limca Book of Award-2014** (edition) launched on March 6, 2014; Entry features: First compressed air-powered bike
j) **Rashtrya Ratan Award-2014**- conferred for outstanding and extra-ordinary achievements and services rendered to promote greater friendship and India-International co-operations by **'Friendship Forum'** New Delhi, on March 29, 2014.
k) **CEE Teacher's Award-2014** -conferred on 6th Sep' 2014 at New Delhi organised by Confederation of Education Excellence, ECON, New Delhi. Felicitated by Padma Vibhusan Prof. Yash Pal & Hon. VC, UPTU, Dr. RK Khandal-Award.
l) **Notable Alumni-**Sardar Vallabhbhai National Institute of Technology, **Surat (SVNIT), South Gujarat University.**
m) **National UP Technical Education Award-2014**-conferred for Excellence in Education to Prof.(Dr.) Bharat Raj Singh, Director, SMS, Lucknow on 29th Nov. 2014-by President, CMAI Association of India, New Delhi.
n) **The Legends of India Award-2014**-conferred for Excellence in Innovation & Education to Prof.(Dr.) Bharat Raj Singh, Director, SMS, Lucknow on 21st Dec. 2014-by President, myGreen Card, Lucknow.
o) **Limca Book of Record-2015(edition)-** featured on January 21, 2015, as: *First academicians' work in US school text book*: Can Glacier & Icemelt be reversed? -Launched on Feb 21, 2014 at New York, United States - for High School Grade (9-12th) Standard**.**
p) **Outstanding Reviewer Status-2015-** conferred by Editor, Energy, Elsevier, Netherland. The status is awarded to Dr. Singh for being the top 10th percentile for completed reviews for Energy in the past two years.

Dr Singh has been a very creative and in depth thinker during his academic career. That is why; he switched over to academic again after his retirement to fulfill the gap of scientific requirements and to serve the society as a whole by imparting his experiences to the future of society (i.e. Students). For the last 10 years, he is working on the burning issues of Global Warming. He has invented an air engine which could run on compressed air releasing zero emission. Its engine size is 4 inches in diameter and produces 5.5 HP (4.1 Kw) power to run any motorbike without releasing Green House Gases. He has achieved this due to his untiring efforts made during 2005 to 2010. His air engine is now patented with Govt. of India patent department and is now tried on motorbike successfully. He has claimed that if this technology is used in two-wheeled vehicles, it can curb carbon emission to about 50-60% and can reduce the effects of higher frequency of Tsunamis, Hurricanes, Rise in sea level, Health hazards due to Global warming and issues related to frequent change in climate.

This invention is considered a utopia and has gathered worldwide acceptance / presence via Radio News, TV Channels, and Print Media in more than 200 countries of the World such as: USA- Colombia, California, Texas and New York; Canada, France, Germany, Kuwait, Iran, Oman, Pakistan, India, China, Taiwan, Thailand (Bangkok), Bulgaria etc..

Dr. Singh has been working on *Carbon Foot Print, Environmental issues and has published* more than 102**-papers** in leading **International/National Journals** and Conferences, Symposium and Seminars.

He has also published **7-Books** and **8-Book Chapters**:

(i) **Development and Analysis of a Novel Air Engine**; **ISBN: 978-3-8443-8171-9;** Lap LAMBERT Academic Publishing, UK.

(ii) The Impact of Air Pollution on Health, Agriculture and Technology; **ISBN: 978-953-307-528-0,** Full Chapter: Influence of the air Engine on Global Warming Issues - 21st Century Fuel Technology; InTech Open Access Publisher, Rijeka, Croatia.

(iii) Fossil Fuel and The Environment; **ISBN: 979-953-307-561-6,** Full Chapter: Global Trends of Fossil Fuel Reserves and Climate Change in the 21st Century; InTech Open Access Publisher, Rijeka, Croatia.

(iv) **A Hand Book on Friction Stir Welding; ISBN: 978-3-659-10762-7,** Lambert Academic Publishing, GmbH & Co. KG, Germany, UK.

(v) **Global Warming - Impacts and Future Perspective" -Book edited by: Prof. Dr. Bharat Raj Singh; ISBN:979-953-307-820-4,** DOI: 10.5772/2599 Publisher: InTech Open Access Publisher; 352 pages, on 19 September 2012.

(vi) **Climate Change - Realities, Impacts Over Ice Cap, Sea Level and Risks" -Book edited by: Prof. Dr. Bharat Raj Singh; ISBN:978-953-51-0934-1;** DOI: 10.5772/3459 Publisher: InTech Open Access Publisher; 508 pages, on 16 January 2013, Rijeka, Croatia.

(vii) **Text Book - Can Glacier and Ice Melt Be Reversed?" - Book Authored by: Roman Espejo; ISBN:978-073-77-6826-8,** Publisher: Cengage Learning Publishing, 104 pages, Price:$35.95 ; Text Book-USA Chapter:7-from Prof. BRSingh .

(viii) **Modeling and Simulation of Dynamics of Half Car Using Bond Graph"**, by Manoj Kumar, Bharat Raj Singh and MA Faruqui; ISBN:978-3-659-61086-8; Publisher-Lambert Academic Publishing, GmbH & Co. KG, Germany, UK, on 23 Sep 2014.

(ix) **Global Warming - Causes, Impacts and Remedies" -Book edited by: Prof. Dr. Bharat Raj Singh; ISBN:**978-953-51-4123-5, **DOI:** 10.5772/58506 Publisher: InTech, Croatia. This book is published on April 22, 2015

Patent:

- **Rotary & Vane Type Air Engine** -Patent office, Govt. of India- Registered on 08-10-2010.
- Dr. Singh's **area of Specialization** is *Unconventional Manufacturing Processes, Industrial Engineering, Thermodynamics and Automobiles* and Research field is in *Sustainable Energy Resources, Environment and Development of Zero Pollution Air Engines.*
- **Dr. Singh is a:**
  a) **Member of Editorial / Advisory Boards** of about **43**- leading International Journals,
  b) **Reviewer** of many **Journals** such as: ASME, USA; IMechE, UK, Elsevier, Journal of Mechanical Engineering, Korea; Academic Journals, Africa; World Academics of Science, Engineering and Technology, Turkey etc. and reviewed about 135- papers
  c) **Member of Technical Expert,** Council of Science & Technology, Govt. of UP-for 3-Years vide OM:CST/D-2330 dated: Dec. 04, 2013 and;
  d) Member of Institution of Engineers (India) in 1978, Chartered Engineer (India) in 1985, Fellow (FIE) in 1985, Member of International Association of Engineers**;** IAENG-105641 (M) in 2010 and Life Member-The Indian Society for Technical Education (ISTE), India-LM94486,in 2014**.**

Mailing address:
Prof. (Dr.) Bharat Raj Singh
5/323, Viram Khand, Gomati Nagar,
Lucknow-226010, **Uttar-Pradesh, India.**
Email:brsinghlko@yahoo.com ; info@brsinghindia.com
Mob: +91-9415025825, +91-9935025825;
(For more details visit: http://www.brsinghindia.com)

(ii)Profile of Prof. Onkar Singh

Dr. Onkar Singh, the founder Vice Chancellor of Madan Mohan Malviya University of Technology, Gorakhpur, is the Professor of Mechanical Engineering at Harcourt Butler Technological Institute (HBTI), Kanpur, an Autonomous Institution of Govt. of Uttar Pradesh.

He completed his B.Tech. with distinction in 1989, M.E. with distinction in 1991 and Ph.D. in 1999. Dr. Singh started his career as Lecturer in Mechanical Engineering Department at Institute of Engg. & Technology, Lucknow and served as Assistant Professor in Mechanical Engineering Department at Harcourt Butler Technological Institute, Kanpur in August 1999 and became Professor in January 2007 in same Department. He served as an Additional Controller of Examination at Uttar Pradesh Technical University, Lucknow during August 2004 to January 2007 on service transfer basis and made unique beginning of use of ICT in U.P. Technical University through innovation of OMR cover type answer books for direct capturing of marks & online marks submission for transparency in tabulation, web based college management system for examination related works.

During his academic career of more than 22 years till now, Dr. Singh has taught various subjects at UG/PG levels and has authored 4 books, edited 04 conference proceedings and written 03 chapters in different books. He has published 45 papers in International journals, 13 papers in National journals and 85 papers in proceedings of International / National conferences. Dr. Singh has guided 07 Ph.D., large no. of Dissertations/Projects at PG/UG level and presently guiding 5 Ph.D. & many PG/UG Dissertation/Projects.

He has completed 07 sponsored projects from different agencies of State & Govt. of India. He successfully commercialized 'Light Weight Motorized Wheel Chair' and obtained its patent in collaboration with Artificial Limbs Manufacturing Corporation (ALIMCO), Kanpur. He is presently engaged in development of 'Solar Powered Tricycle for Handicapped' in collaboration with ALIMCO. He has also filed one patent for development of 'Compressed Air Engine'.

Along with being a good teacher, Dr. Singh has handled a number of administrative assignments successfully and made exemplary contributions to different organizations through his dedicated, committed and innovative approach with high integrity. Some of the major administrative assignments handled are Coordinator, U.P. State Engineering Entrance Examination-2011, Dean of Academic Affairs, H.B.T.I.,Kanpur, Controller of Examination, Head of Mechanical Engineering Department, H.B.T.I.,Kanpur, Additional Controller of Examination, U.P.T.U., Lucknow, Assistant Coordinator, Combined Entrance Examination of UP-1994 & UP State Engineering Admission Test -1999.

Dr. Singh is Member of the Board of Governor of Indian Institute of Technology, Kanpur as U.P. Govt. Nominee , Member of Board of Governors of Kamla Nehru Institute of Technology, Sultanpur, Member of State Steering Committee of TEQIP-World Bank under State Project Facilitation Unit, Lucknow.

Dr. Singh is Fellow of The Institution of Engineers(India), Life Member of Indian Society of Technical Education, Life Member of Oil Technologists Association of India, Member of Indian Society of Heating and Refrigeration Engineers , and has been elected as Member(Mechanical) of Executive Committee of The Institution of Engineers U.P. State Centre Lucknow.

Dr. Singh contributes significantly in different outside academic activities e.g.; he has been the Convener of Board of Studies, Mechanical Engineering, UPTU/GBTU, Lucknow, Member of Research Degree Committees of number of Universities, Expert Member of National Board of Accreditation, AICTE, New Delhi, Expert Member in Public Service Commission of U.P., Uttarakhand & M.P. etc. He has organized 11 National/International conferences and 03 short term course/workshop. He is on the editorial board of different International & National journals. He is the recipient of National Scholarship throughout education up to Bachelor degree and has received AICTE Young Teacher Career Award in year 2000. Dr. Singh has also received Letters of Appreciation for his contributions as Additional Controller of Examination and Coordinator, UPSEE-2011 by the Vice Chancellors of UPTU, Lucknow and MTU, Noida respectively.

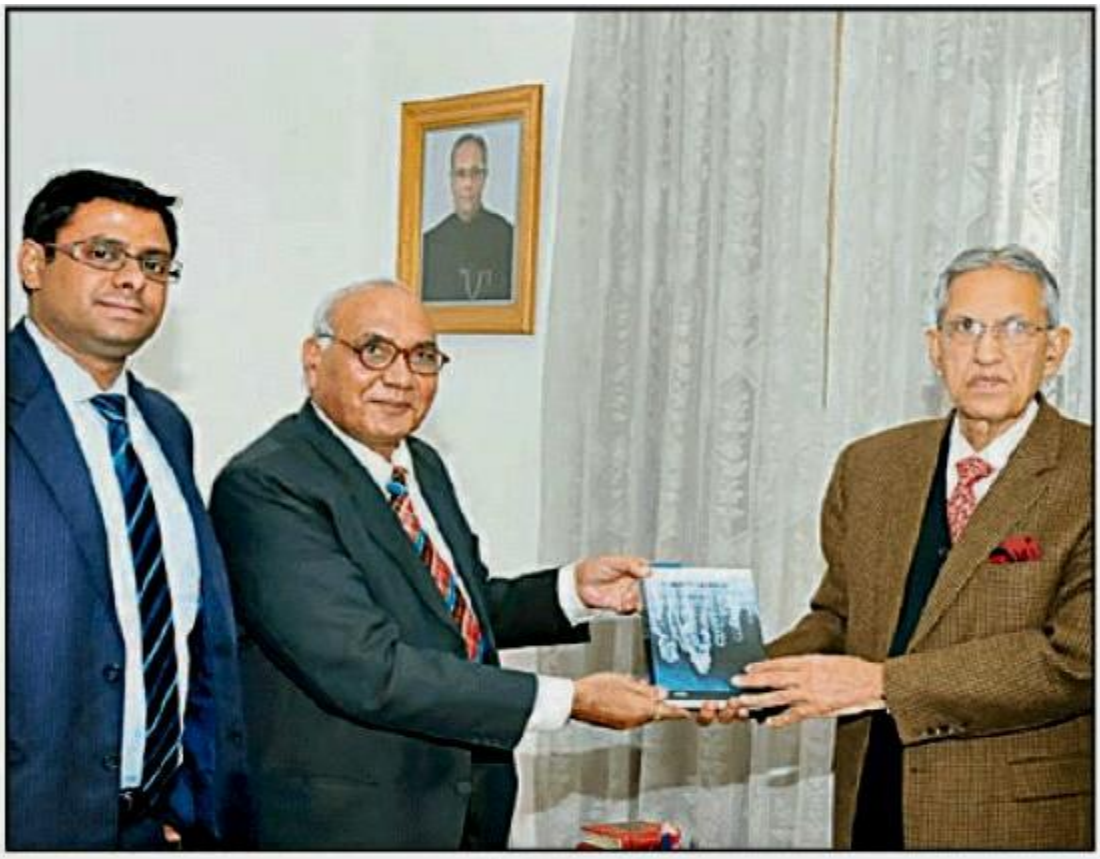
2.7 Photographs

Annexure-III

1. **Book: 'Design & Analysis of Air Engine' being presented to Hon. Governor of Uttar-Pradesh by Prof. Bharat Raj Singh and Prof. Onkar Singh on Jan 17, 2012.**

Dr. Bharat Raj Singh - Professor & Associate Director , School of Management Sciences, Technical Campus, Lucknow presenting his Book on "Development & Analysis of Air Engine" to **Hon'ble Governor of Uttar Pradesh** on **17th January 2012**

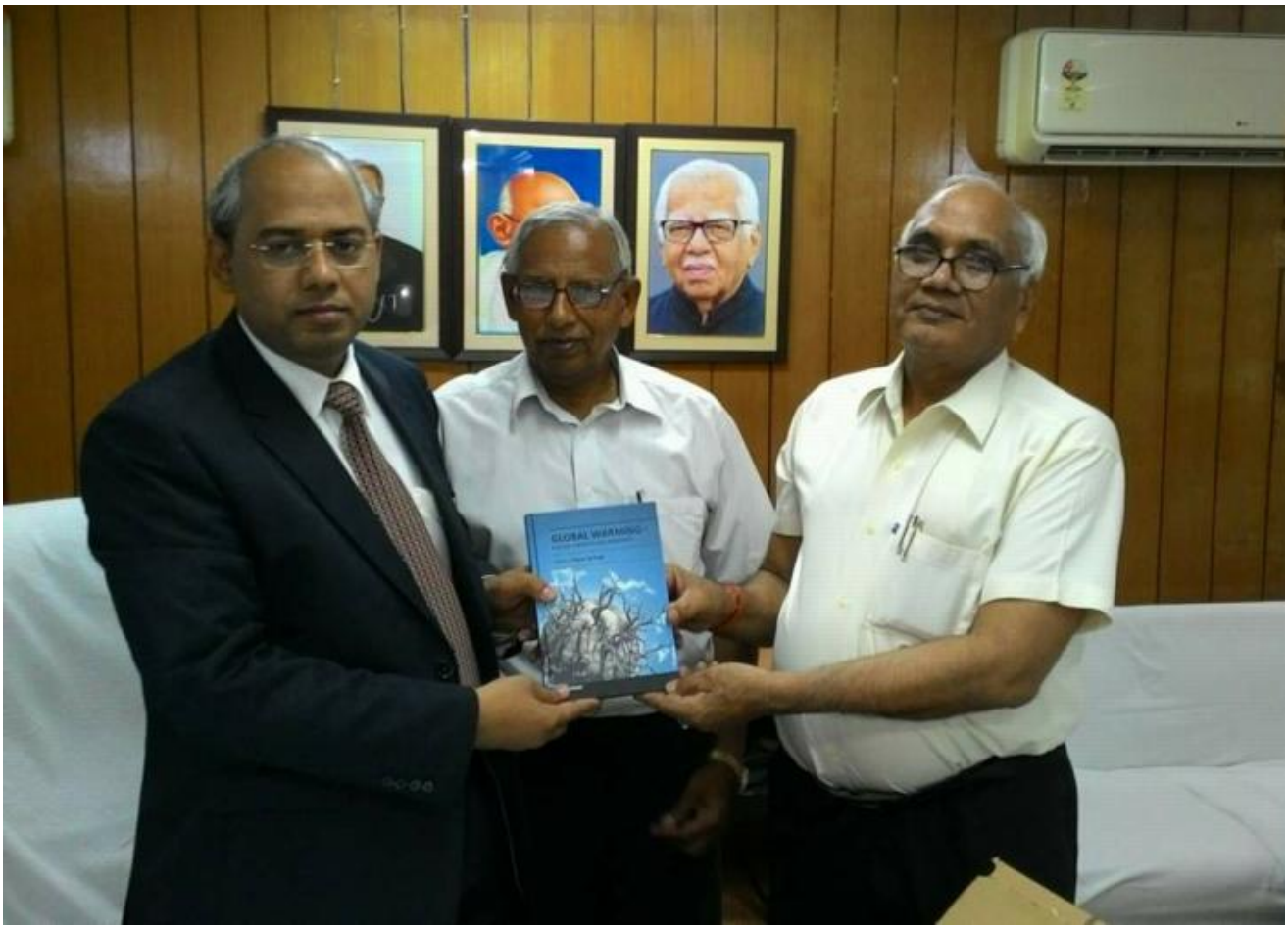
2. Book: 'Climate Change- Realities, Impacts over Ice Cap, Sea Level and Risks' being presented to Hon. Governor of Uttar-Pradesh by Prof. Bharat Raj Singh and Prof. Onkar Singh on Jan 27, 2014.



राज्यपाल से मिले भरतराज

लखनऊ। डा. भरतराज सिंह द्वारा तैयार की गयी एअर-ओ-बाइक के सम्बन्ध में जानकारी हेतु राज्यपाल बीएल जोशी ने उन्हे आमंत्रित किया था। राज्यपाल ने उनसे जनमानस हेतु इसकी उपयोगिता व विकास हेतु जानकारी प्राप्त की। इस मुलकात के दौरा एसएमएस के सचिव मुख्य कार्यकारी अधिकारी शरद सिंह भी उपस्थित थे। इस मौके पर डा. भरत राज सिंह निदेशक स्कूल आफ मैनेजमेन्ट साइन्सेज लखनऊ के द्वारा 'पर्यावरण सुरक्षा' पर लिखित पुस्तक राज्यपाल को भेंट की गयी। क्रोसिया में प्रकाशित हुई है। उक्त पुस्तक के कुछ अंश अमेरिका पाठ्य-पुस्तकों में भी प्रकाशित किये गये हैं। जो अमेरिका पर्यावरण सुरक्षा की अधिकारी हेतु विद्यार्थियों, पुस्तकालयों व शोधकर्ताओं के निर्मित उपयोगी होगी

3. Book: 'Global Warming- Causes, Impacts & Remedies' being presented to Hon. Vice Chancellor, UPTU, Prof. Onkar Singh by Prof. Bharat Raj Singh and on May 18, 2015.



Annexure-IV

2.8 News paper cuttings, if any

S.No.	Print Media / News Papers	Date
i).	Kalptaru Express, Lucknow	05-06-2015
ii).	City Times, Allahabad	05-06-2015
iii).	Amar Ujala, Lucknow	01-06-2015
iv).	City Times, Lucknow	23-05-2015
v).	Rashtriya Sahara, Lucknow	23-05-2015
vi).	Hindustan, Lucknow	22-01-2015
vii).	Hindustan Times, Lucknow	22-01-2015
viii).	Voice of Movement, Lucknow	02-11-2014
ix).	Kalptaru Express, Lucknow	30-10-2014
x).	KPCC 89.3, California	20-01-2011
xi).	Iran Daily, Iran	04-07-2010
xii).	All About Bike, NY	July-2010
xiii).	Press Release, API, NY, USA	08-06-2010

लखनऊ | शुक्रवार | 5 जून 2015

कल्पतरु एक्सप्रेस

सब के साथ हमेशा

लखनऊ, औरैया, मथुरा और आगरा से प्रकाशित वर्ष: 3 अंक: 315 पृष्ठ : 12 मूल्य : 2 रुपये

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कल्पतरु एक्सप्रेस 6 लखनऊ, शुक्रवार, 5 जून 2015 लखनऊ www.kalptaruexpress.com

'विनाश के कगार पर पहुंची सृष्टि'

कल्पतरु समाचार सेवा

लखनऊ। मनुष्य द्वारा पृथ्वी के प्राकृतिक धरोहर के असंयमित ढंग से दोहन के कारण जहॉ इसके तापमान में तेजी से बढ़ोत्तरी हो रही है वहीं मौसम में बदलाव भी अप्रत्याशित रूप से हो रहा है। इससे संम्पूर्ण विश्व में जीवन के अस्तित्व पर खतरा मंड़रा रहा है। ऐसे में पृथ्वी के प्राकृतिक भंडारण को संरक्षित कर तथा अपरम्परागत संसाधनों को अधिक से अधिक उपयोग कर पृथ्वी पर जन-जीवन को बचाया जा सकता है।

डॉ. भरत राज सिंह जो स्कूल ऑफ मैनेजमेंट साइन्सेज, लखनऊ में निदेशक हैं उन्होनें पूर्व में ही अपनी पुस्तक क्लाईमेट चेंज और ग्लोबल वार्मिंग जो इंटेक क्रोसिया से प्रकाशित हुई है, पहले ही आगाह किया था, कि यदि मनुष्य द्वारा प्रकृति के दोहन पर नियंत्रण नहीं किया जायेगा तो भविष्य में प्राकृतिक आपदाओं की भयावाह स्थिति हो सकती है। जैसे विगत वर्षो में उत्तराखण्ड व कशमीर में आयी भीषण आपदाओं से जान-माल की हानि हुई थी, उससे अधिक भयावाह स्थिति पूरे हिमायल श्रृंखला में इस वर्ष भी हो सकती है।

डा. सिंह ने यह भी पुस्तक में अंकित किया था कि पृथ्वी के तापमान में वृद्धि से अमेरिका का न्यूयार्क शहर तूफानों से अगले दशक में तबाह/डूब जायेगा, जिसकी पुष्टि उनकी पुस्तक प्रकाशित होने के डेढ़ माह बाद ही 31 अक्टूबर 2012 को एक तिहाई न्यूयार्क शहर का निचला हिस्सा पानी में डूब जाने से हुई थी। डा. सिंह का सुझाव है कि छोटे-छोटे उपायो से पर्यावरण में परिवर्तन को रोका जा सकता है; विशेष कर बिजली में बचत हेतु एल.ई.डी. का अधिकता से उपयोग, रिसाइकल वस्तुओं का निरन्तर उपयोग और वाहन का कम से कम उपयोग अथवा पूल वाहनो का अधिक उपयोग, पेड़-पौधे को अधिक से अधिक लगाने से तथा लोगों में पर्यावरण के प्रति चेतना जागृत करने से हो सकता है। उनका सुझाव यह भी है कि भारत जैस देश में, जहॉ सौर्य ऊर्जा बहुतायत में उपलब्ध है, नहरो के ऊपर व घरो के छत के ऊपर सौर्य ऊर्जा पैनल लगाकर बिद्युत उत्पन्न की जाये, तथा सभी घरों में सौर्य ऊर्जा का अधिक से अधिक उपयोग कर ताप-विद्युत परियोजनाओं के उत्पादन में कमी की जा सकती है। विद्युत उत्पादन गृहों का नवीनीकरण कर उनकी छमता बढ़ाकर कार्बन के उत्सर्जन में कम से कम 20 से 30 प्रतिशत कटौती की जा सकती है। डा. सिंह ने अपनी अभी प्रकाशित पुस्तक में ग्लोबल वार्मिंग-कॉजेज, इम्पैक्ट एंड रेमिडीज में चेतावनी दी है कि यदि उक्त उपायो पर तेजी से कारगर कार्यवाही नहीं की गयी तो उत्तरी और दक्षिणी ध्रुव के बफीलीं चट्टानें जो तेजी से पिघल रही है समुद्र की सतह को 12-13 फिट जहॉ 21वीं सदी के अन्त तक बढ़ाने से रोका नहीं जा सकता, वहीं पृथ्वी की धुरी जो 23.4 डिग्री पर 24 घंटे में एक चक्कर लगा रही है, उसमें यदि असम्भावी परिवर्तन हो गया, तो पूरी सृष्टी विनाश के कगार पर पहुँच जायेगी। स्कूल ऑफ मैनेजमेंट साइन्सेज, लखनऊ विगत तीन दो वर्ष से विश्व व्यापी अभियान चलाकर लोगों को जागरूक करने में अपनी अग्रणी भूमिका निभा रहा है।

(ii)City Times, Allahabad June 5, 2015

उत्तर प्रदेश, उत्तराखंड एवं दिल्ली से प्रकाशित

विकास सरकार की पहली प्राथमिकताः पवन...05

जिलाधिकारी ने किया महसी क्षेत्र के तटबन्ध का निरीक्षण...08

सूर्योदय 5.13	सूर्यास्त 6.56
तापमान अधिकतम 40.08 डिग्री	न्यूनतम 27.02 डिग्री
सेंसेक्स	27,188
सोना 26,890	चांदी 38,366

हम बनेंगे आपकी आवाज

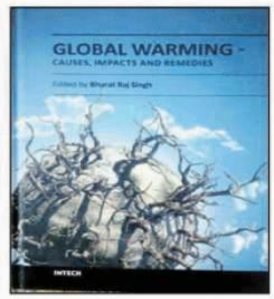
सिटी टाइम्स

सांप जैसी मछली: कैलीफोर्निया में ओरफिश मछली के पास बैठी पर्यावरणविद् एनी मककुले।

नगर संस्करण, इलाहाबाद, शुक्रवार, 5 जून, 2015 www.citytimes.co.in वर्ष 8 अंक : 80, पेज-12, मूल्य : ₹ 2.00, आषाढ़, कृष्ण पक्ष, तृतीया, विक्रम संवत, 2072

www.citytimes.co.in गोरखपुर इलाहाबाद, शुक्रवार, 5 जून, 2015 सिटी टाइम्स 9

जीवन के अस्तित्व पर मंडरा रहा खतरा : डा. भरत राज



कार्यालय संवाददाता, गोरखपुर। मनुष्य द्वारा पृथ्वी के प्राकृतिक धरोहर के असंयमित ढंग से दोहन के कारण जहाँ इसके तापमान में तेजी से बढ़ोत्तरी हो रही है, वहीं मौसम में बदलाव भी अप्रत्याशित रूप से हो रहा है। इससे संम्पूर्ण विश्व में जीवन के अस्तित्व पर खतरा मंड़रा रहा है। ऐसे में पृथ्वी के प्राकृतिक भंडारण को संरक्षित कर तथा अपरम्परागत संसाधनों को अधिक से अधिक उपयोग कर पृथ्वी पर जन-जीवन को बचाया जा सकता है।

उक्त बातें स्कूल ऑफ मैनेजमेंट साइन्सेज, लखनऊ के निदेशक डा. भरत राज सिंह ने कही। उन्होंने कहा कि हमने पूर्व में ही अपनी पुस्तक क्लाईमेट चेंज और ग्लोबल वार्मिंग जो इंटेक क्रोसिया से प्रकाशित हुई है, पहले ही आगाह किया था, कि यदि मनुष्य द्वारा प्रकृति के दोहन पर नियंत्रण नहीं किया जायेगा तो भविष्य में प्राकृतिक आपदाओं की भयावाह स्थिति हो सकती है। जैसे विगत वर्षों में उत्तराखण्ड व कश्मीर में आयी भीषण आपदाओं से जान-माल की हानि हुई थी, उससे अधिक भयावाह स्थिति पूरे हिमायल श्रृंखला में इस वर्ष भी हो सकती है। डा. सिंह ने यह भी पुस्तक में अंकित किया था कि पृथ्वी के तापमान में वृद्धि से अमेरिका का न्यूयार्क शहर तूफानों से अगले दशक में तबाह/डूब जायेगा, जिसकी पुष्टि पुस्तक प्रकाशित होने के डेढ़ माह बाद ही 31 अक्टूबर 2012 को एक तिहाई न्यूयार्क शहर का निचला हिस्सा पानी में डूब जाने से हुई थी।

डा. सिंह का सुझाव है कि छोटे-छोटे उपायो से पर्यावरण में परिवर्तन को रोका जा सकता है; विशेष कर बिजली में बचत हेतु एल.ई.डी. का अधिकता से उपयोग, रिसाइकल वस्तुओं का निरन्तर उपयोग और वाहन का कम से कम उपयोग अथवा पूल वाहनो का अधिक उपयोग, पेड़-पौधे को अधिक से अधिक लगाने से तथा लोगों में पर्यावरण के प्रति चेतना जागृत करने से हो सकता है। उनका सुझाव यह भी है कि भारत जैस देश में, जहाँ सौर्य ऊर्जा बहुतायत में उपलब्ध है, नहरों के ऊपर व घरो के छत के ऊपर सौर्य ऊर्जा पैनल लगाकर विद्युत उत्पन्न की जाये, तथा सभी घरों में सौर्य ऊर्जा का अधिक से अधिक उपयोग कर ताप-विद्युत परियोजनाओं के उत्पादन में कमी की जा सकती है। विद्युत उत्पादन गृहों का नवीनीकरण कर उनकी छमता बढ़ाकर कार्बन के उत्सर्जन में कम से कम 20 से 30 प्रतिशत कटौती की जा सकती है।

डा0 सिंह ने अपनी अभी प्रकाशित पुस्तक में ''ग्लोबल वार्मिंग-कॉजेज, इम्पैक्ट एंड रेमिडीज में चेतावनी दी है कि यदि उक्त उपायो पर तेजी से कारगर कार्यवाही नहीं की गयी तो उत्तरी और दक्षिणी ध्रुव के बर्फीली चट्टानें जो तेजी से पिघल रही है समुद्र की सतह को 12-13 फिट जहाँ 21वीं सदी के अन्त तक बढ़ाने से रोका नहीं जा सकता, वहीं पृथ्वी की धुरी जो 23.4 डिग्री पर 24 घंटे में एक चक्कर लगा रही है, उसमें यदि असम्भावी परिवर्तन हो गया, तो पूरी सृष्टी विनाश के कगार पर पहुँच जायेगी। ऐसे में 'पृथ्वी बचाओं व जीवन बचाओं' का नारा सार्थक करना अति आवश्यक है जिसके लिए स्कूल ऑफ मैनेजमेंट साइन्सेज, लखनऊ विगत तीन दो वर्ष से विश्व व्यापी अभियान चलाकर लोगों को जागरूक करने में अपनी अग्रणी भूमिका निभा रहा है।

My City

लखनऊ अमर उजाला

सोमवार । 1 जून 2015 VI

न्यूज डायरी

2040 तक उत्तरी ध्रुव पर नहीं बचेगी बर्फ

लखनऊ। तेजी से बढ़ रहा वैश्विक तापमान ग्रीनलैंड और उत्तरी ध्रुव पर जमने वाली बर्फ के लिए खतरा बन गया है। राजधानी से जुड़े वैज्ञानिक डॉ. भरतराज सिंह और यूपीटीयू के वीसी प्रो. ओंकार सिंह की नई किताब 'ग्लोबल वार्मिंग-कॉजेज, इम्पैक्ट एंड रेमिडीज' में ग्लोबल वार्मिंग से पृथ्वी के अस्तित्व को खतरा बताया गया है। किताब में दावा किया गया है कि इसी तेजी से गर्मी बढ़ती रही तो 2040 तक ग्रीनलैंड और उत्तरी ध्रुव पर नाममात्र को ही बर्फ रह जाएगी। यह बर्फ भी केवल गर्मियों में ही देखने को मिलेगी।

उत्तर प्रदेश, उत्तराखंड एवं दिल्ली से प्रकाशित

गुरुजी ने धर्म एवं सत्य की रक्षा के लिए अपना बलिदान दिया : नाइक...03 नवागत डीआइजी के दरबार में पहुंचा अवैध बालू खनन का मामला...05

हम बनेंगे आपकी आवाज

सिटी टाइम्स

सूर्योदय 5.16 सूर्यास्त 6.50
अधिकतम 40.04 डिग्री न्यूनतम 25.04 डिग्री
बैंकोक 27,809
सोना 27,206 चांदी 39,230

परीक्षा परिणाम निकलने के बाद खुशी का इजहार में सेल्फी लेती दो सहेलियां।

नगर संस्करण, लखनऊ, शनिवार, 23 मई, 2015 www.citytimes.co.in वर्ष 16 अंक : 244, पेज-12, मूल्य : ₹ 3.00, ज्येष्ठ, शुक्ल पक्ष, पंचमी, विक्रम संवत, 2072

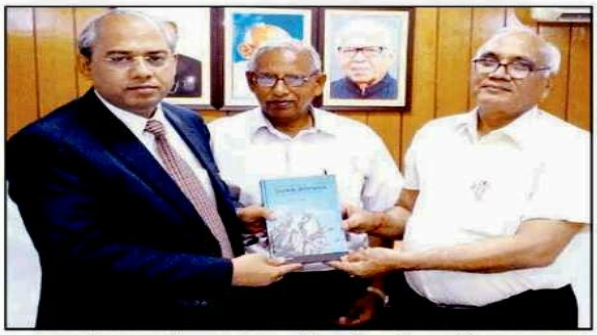
ग्लोबल वार्मिंग से पृथ्वी के अस्तित्व को खतरा

शिक्षाविद प्रो. भरतराज सिंह व प्रो. ओंकार सिंह की क्रोएशिया से प्रकाशित पुस्तक में दावा

अखिलेश श्रीवास्तव

गोरखपुर। ग्लोबल वार्मिंग से पृथ्वी के अस्तित्व को खतरा उत्पन्न हो गया है। ग्रीष्म ऋतु में अमेरिका, कनाडा और यूके के उत्तर तटीय क्षेत्रों में रहना मुश्किल हो जाएगा। नतीजा लोगों को वहां से पलायन करना पड़ेगा। वहीं समुद्र का जल स्तर बढ़ने से पृथ्वी के घूर्णन कोण में भी परिवर्तन होने का खतरा है। यह दावा जाने-माने शिक्षाविद स्कूल ऑफ मैनेजमेंट साइंसेज लखनऊ के निदेशक प्रो. भरत राज सिंह और मदन मोहन मालवीय प्रौद्योगिकी विश्वविद्यालय के कुलपति प्रो. ओंकार सिंह की क्रोएशिया के इन्टेक प्रकाशन द्वारा प्रकाशित पुस्तक 'ग्लोबल वार्मिंग-कॉजेज, इम्पैक्ट एण्ड रेमिडीज' में यह दावा किया गया है। यह पुस्तक अप्रैल माह में प्रकाशित हुई और पूरे विश्व के साथ भारतीय बाजारों में इस पुस्तक की मांग बढ़ गई है। दोनों शिक्षाविदों ने पर्यावरण और ग्लोबल वार्मिंग से संबंधित शोध, अध्यायों

शेष पेज 11 पर



पुस्तक के साथ प्रो. भरत राज सिंह, प्रो. ओंकार सिंह व अन्य।

अमेरिका, कनाडा और यूके के उत्तर तटीय क्षेत्रों में रहना होगा मुश्किल

समुद्र का जलस्तर बढ़ने से पृथ्वी के घूर्णन कोण में होगा जाएगा परिवर्तन

ग्लोबल वार्मिंग...

एवं पुस्तकों द्वारा इस विश्व को पृथ्वी पर होने वाले तापमान वृद्धि एवं तीव्र वातावरणीय परिवर्तन से सम्बन्धित समय-समय पर होने वाले खतरों से अवगत कराया है। पुस्तक में 'स्टडी आफ इम्पैक्ट्स आन कंटीन्यूअस श्रिंकेज ऑफ आर्कटिक सी एण्ड सी लेवल राइज' अध्याय के भाग कैन ग्लेशियर्स बी ग्रोइंग एंड क्रिएटिंग न्यू चैलेन्जेज टू यूके एण्ड यूएसए एवं दूसरे अध्याय 'डायर कॉन्सीक्वेन्सज ऑन लिटिल शिफ्टिंग ऑफ दी अर्थस् स्पिनिंग एंगल' के भाग 'एन इनवेस्टिगेशन वेदर पोलर आईस श्रिंकेज में बी दें कॉज' अध्यायों के माध्यम से विश्व को एक बार फिर अवगत कराया है कि उत्तरी ध्रुव की बर्फ ग्लोबल वार्मिंग के चलते पिछले एक दशक में बहुत तेजी से पिघली है और आगे भी इसके पिघलने की रफ्तार तेज होने से असम्भावित खतरों की पुनरावृत्ति बढ़ रही है। पुस्तक के इन अध्यायों में यह भी बताया गया है कि किस प्रकार ग्लोबल वार्मिंग के कारण उत्तरी आर्कटिक क्षेत्र के जीवों विशेषतयः पोलर बियर एवं पैंग्विन आदि का अस्तित्व व उनके विलुप्त होने का खतरा आ गया है।

पुस्तक में यह भी वर्णित किया गया है कि पिछले एक वर्ष में समुद्र के जल स्तर में 3.2 एमएम की दर से आस्वभाविक बढ़ोतरी की औसत दर व 20 सेंटीग्रेट विश्व तापमान बढ़ने पर गहन चिंतन अति आवश्यकता है, अन्यथा इसके भयावह परिणाम भुगतने पड़ सकते हैं। उन्होंने विश्व को चेतावनी दी है कि अगर इस दिशा में सक्रिय कदम नहीं उठाए गए तो संभवतः 2040 तक ग्रीनलैण्ड व उत्तरी ध्रुव पर नाम मात्र की ही बर्फ ग्रीष्म ऋतु में दिखने को मिलेगी। उसके फलस्वरूप अमेरिका, कनाडा और यूके के उत्तर तटीय क्षेत्रों में बर्फीली चट्टानें जमा हो जायेंगी, जिससे जनमानस का वहां रहना कठिन हो जाएगा। पुस्तक में दावा किया गया है कि उत्तरी आर्कटिक सागर की बर्फ की मोटी परत समाप्त होने के साथ ग्लोबल वार्मिंग की अधिक तीव्रता को भी नकारा नहीं जा सकता है। उत्तरी ध्रुव की बर्फ की परत में निरन्तर क्षरण की प्रक्रिया थमी नहीं, तो बर्फ की चट्टानें समुद्र में मिल जायेगी और समुद्र का जल स्तर बढ़ने से उसकी मात्रा में 1300-1450 ट्रिलियन टन की बढ़ोत्तरी हो जायेगी तथा ध्रुव से यह भार कम हो जायेगा। यदि ऐसा हुआ तो पृथ्वी के घूर्णन कोण 23.43 डिग्री में कुछ न कुछ परिवर्तन आ जाएगा। परिणामस्वरूप अगली शताब्दी तक सम्पूर्ण पृथ्वी से मानव व जीवों का अस्तित्व खतरे में पड़ जाएगा।

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सहारा युवा 7
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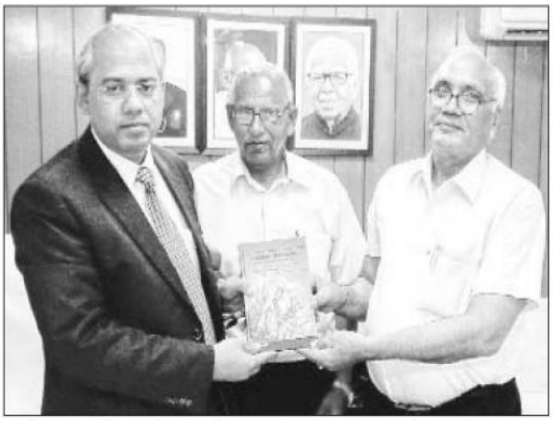
ग्लोबल वार्मिंग से पृथ्वी के अस्तित्व को खतरा : प्रो. भरतराज

लखनऊ (एसएनबी)। ग्लोबल वार्मिंग पर समय रहते ध्यान नहीं दिया गया तो पृथ्वी का अस्तित्व खतरे में पड़ जाएगा। इस खतरे का आभास स्कूल ऑफ मैनेजमेन्ट सांइसेज (एसएमएस) के निदेशक प्रो. भरत राज सिंह ने अपनी पुस्तक 'ग्लोबल वार्मिंग-कॉजेज, इम्पैक्ट एंड रेमिडीज' में कराया है। पुस्तक अप्रैल माह के अन्तिम सप्ताह में क्रोएशिया से इंटेक प्रकाशन में प्रकाशित हुई। पुस्तक का लोकार्पण जल्द देश में भी किया जाएगा। प्रो. भरतराज सिंह ने पुस्तक की एक प्रति व मदन मोहन मालवीय तकनीकी विश्वविद्यालय, गोरखपुर के कुलपति यूपीटीयू के प्रभारी कुलपति प्रो. ओंकार सिंह को भेंट की। पुस्तक में वह सह लेखक हैं।

पुस्तक के अध्याय 'स्टडी ऑफ इम्पैक्ट्स ऑन कंटीन्यूअस शिंकेज ऑफ आर्कटिक सी एंड सी लेवल राइज- कैन ग्लेशियर्स बी ग्रोइंग एंड क्रिएटिंग न्यू चैलेन्जेज टू यूके एण्ड यूएसए? एवं 'डायर कॉन्सीन्सज ऑन लिटिल शिफ्टिंग आफ दी अर्थस् स्पिनिंग एंगल-एन इनवेस्टिगेशन वेदर पोलर आईस शिंकेज' में विश्व को अवगत कराया है कि उत्तरी ध्रुव की बर्फ ग्लोबल वार्मिंग के चलते पिछले एक दशक में बहुत तेजी से पिघली है और आगे भी इसके पिघलने की रफ्तार तेज होने से खतरों की पुनरावृत्ति बढ़ रही है। पुस्तक के इन अध्यायों में यह भी बताया गया है कि किस प्रकार ग्लोबल वार्मिंग के कारण उत्तरी आर्कटिक क्षेत्र के जीवों विशेषकर पोलर बियर व पैनग्विन आदि का अस्तित्व व उनके विलुप्त होने का खतरा बढ़ गया है। डा. सिंह ने पुस्तक में यह भी वर्णित किया है कि पिछले एक वर्ष में समुद्र के जल स्तर में 3.2 एमएम की दर से अस्वभाविक बढ़ोतरी की औसत दर व 20 सेंटीग्रेट विश्व तापमान बढ़ने पर गहन चिंतन की अति आवश्यकता है। इसके नजरअंदाज पर भयावह परिणाम भुगतने पड़ सकते हैं।

पुस्तक 'ग्लोबल वार्मिंग-कॉजेज, इम्पैक्ट एंड रेमिडीज' के अध्यायों में उन्होंने विश्व को चेतावनी दी कि अगर हम सक्रिय कदम इस दिशा में नहीं उठाते तो संभवतः 2040 तक ग्रीनलैण्ड व उत्तरी ध्रुव पर नाम मात्र को ही बर्फ ग्रीष्म ऋतु में दिखने को मिलेगी तथा उसके फलस्वरूप अमेरिका, कनाडा और यूके के उत्तर तटीय क्षेत्रों में बर्फीली चट्टानें जमा हो जायेंगी। इससे जनमानस को वहां रहना कठिन होगा। उन्हें अन्यत्र स्थानान्तरित करना ही अनिवार्य होगा। परमाफ्रास्ट के चलते उत्तरी आर्कटिक सागर की बर्फ की मोटी परत समाप्त होने के साथ ग्लोबल वार्मिंग की अधिक तीवता को भी नकारा नहीं जा सकता है। उन्होंने विश्व को यह भी चेताया है कि अगर उत्तरी ध्रुव की बर्फ की परत में निरन्तर क्षरण की प्रक्रिया थमी नहीं तो बर्फ की चट्टानें समुद्र में मिल जाएंगी। समुद्र के जल स्तर बढ़ने के साथ-साथ उसकी मात्रा में 1300-1450 ट्रिलियन टन की बढ़ोतरी हो जायेगी तथा ध्रुव से यह भार कम हो जायेगा।

इसके कारण पृथ्वी के घूर्णन कोण '23.43' डिग्री में परिवर्तन से रोका नहीं जा सकता है, जिसके फलस्वरूप अगली शताब्दी तक सम्पूर्ण विश्व के जनमानस व जीवों का अस्तित्व खतरे में पड़ सकता है।



'ग्लोबल वार्मिंग-कॉजेज, इम्पैक्ट एंड रेमिडीज' पुस्तक की प्रति प्रो. भरतराज सिंह मदन मोहन मालवीय तकनीकी विश्वविद्यालय, गोरखपुर के कुलपति यूपीटीयू के प्रभारी कुलपति प्रो. ओंकार सिंह को भेंट करते हुए।

(vi) Hindustan, Lucknow January 22, 2015

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अमेरिकी छात्र पढ़ेंगे प्रो. भरत का लेख

उपलब्धि

लखनऊ | कार्यालय संवाददाता

शहर के वैज्ञानिक प्रो. डॉ.भरत राज सिंह और प्रो. ओंकार सिंह ने एक नया कीर्तिमान दर्ज किया है। अमेरिकी विद्यालयों में कक्षा 9 से 12 के पाठ्यक्रम में लागू पुस्तक ''कैन ग्लेशियर एण्ड आइसमेल्ट बी रिवर्सड'' में इनके द्वारा लिखित अध्याय को शामिल किया गया है।

सह लेखक के रूप में दोनों पहले भारतीय शिक्षाविद् बने जिनका अध्याय ''द मेल्टिंग ऑफ ग्लेशियर कैन नॉट बी रिवर्सड विद् ग्लोबल वार्मिंग'' अमेरिकी स्कूल पाठ्यक्रम में लागू किया गया।

प्रो. डॉ.भरत राज सिंह

इसके लिए इस पुस्तक को लिम्का बुक ऑफ रिकार्ड-2015 में शामिल किया गया है। इसका प्रकाशन बुधवार से शुरू किया गया है।

वैज्ञानिक प्रो. (डॉ.) भरत राज सिंह स्कूल ऑफ मैनेजमेंट साइंसेस, लखनऊ के निदेशक है। प्रो. ओंकार सिंह वर्तमान में कुलपति मदन मोहन मालवीय तकनीकी विश्वविद्यालय गोरखपुर की जिम्मेदारी संभाल रहे हैं। शहर के डॉ. भरत राज सिंह इससे पहले भी लिम्का बुक में जगह पा चुके हैं। एयर-ओ-बाइक के अविष्कार के लिए उन्होंने लिम्का बुक ऑफ रिकार्ड-2014 में प्रथम अविष्कारक के रूप में शामिल किया गया था।

कीर्तिमान

- 9 से 12 कक्षा के पाठ्यक्रम में लागू पुस्तक 'कैन ग्लेशियर एण्ड आइसमेल्ट बी रिवर्सड'
- डॉ.भरत राज सिंह के साथ गोरखपुर के प्रो. ओंकार सिंह ने भी बनाया नया कीर्तिमान

(vii)Hindustan Times January 22, 2015

HINDUSTAN TIMES, LUCKNOW
THURSDAY, JANUARY 22, 2015

hindustantimes | metro | 03

UP faculty give US students a lesson on climate change

HT Correspondent
lkoreportersdesk@hindustantimes.com

LUCKNOW: A chapter penned by two academicians from Uttar Pradesh is now being taught to students in the US.

The lesson, tilted 'The melting of glaciers cannot be reversed with global warming' forms chapter 7 of the textbook, 'Can Glacier and Ice Melt Be Reversed?' for students of Classes 9 to 12 in American schools.

The author, prof Bharat Raj Singh, director of the School of Management Sciences in Lucknow and co-author, prof Onkar Singh, vice chancellor of Gorakhpur's Madan Mohan Malaviya University of Technology, claim they have become the first Indian academicians whose work has made it to a US school textbook.

Prof Onkar Singh said the lesson was submitted to the publisher last year and its acceptance was a matter of pride for them.

"This credited work by Indian authors features in the Limca Book of Records-2015 under the literature category, launched on January 21, 2015," academician Bharat Raj Singh claimed. The publisher of the textbook, Cengage Learning, has given a certification on inclusion of the Indian faculty's lesson.

The lesson begins by informing students that 'Ice sheets and glaciers are more vulnerable to climate change than previously estimated..' and points out that satellite images show the Arctic sea ice retreating to a record low in August 2012. Scientists predict it will disappear during the summers within two decades. Research reveals that 70% of loss of sea ice in the Arctic results from man-made climate change. These findings, the authors say, call for significant reductions in carbon emissions and a focus on renewable energy sources.

Singh is also the inventor of 'Air-O-Bike', which featured in last year's edition of 'Limca Book of Records'.

Cover of the textbook

PROUD MOMENT

Author Bharat Raj Singh, director of School of Management Sciences, Lucknow and co-author, prof Onkar Singh, V-C of Gorakhpur's Madan Mohan Malaviya University of Technology, claim to be the first Indian academicians whose work is part of a US schoolbook.

The lesson, tilted 'The melting of glaciers cannot be reversed with global warming' is chapter 7 of the textbook, 'Can Glacier and Ice Melt Be Reversed?' for students of Classes 9 to 12 in American schools.

राष्ट्रीय हिन्दी दैनिक

वॉयस ऑफ मूवमेंट

तथ्य से सत्य तक

महानगर * नगर संस्करण

लखनऊ, शनिवार, 2 नवम्बर 2013, वर्ष : 4, अंक : 338, पृष्ठ 16, मूल्य : ₹ 3

यूरोपीय देशों के पाठ्यक्रम में शामिल भारतीय पुस्तक

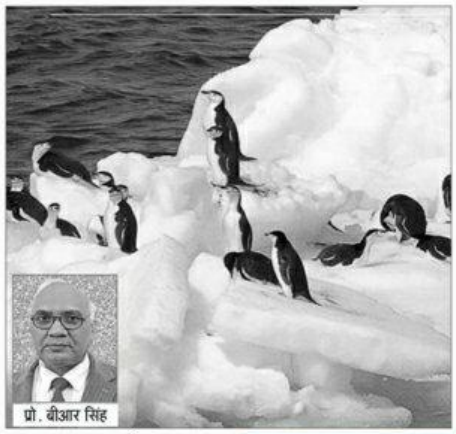
लखनऊ (कासं)। ग्लोबल वार्मिंग तथा भविष्य में इसके प्रभाव नामक पुस्तक प्रकाशन के लगभग एक महीने बाद अमेरिका में सैंडी तूफान ने कहर बरपा दिया।

स्कूल ऑफ मैनेजमेंट साईंसेज के निदेशक प्रो. बीआर सिंह द्वारा सितम्बर, 2012 में दैवीय आपदाओं के आने के कारणों का इस पुस्तक में वर्णन किया गया है। जिसके बाद इस पुस्तक को यूरोपीय देशों के कुछ कालेजों के पाठ्यक्रम में भी शामिल किया गया है। पुस्तक में भयंकर सूखा, चक्रवात आदि की संभावना में 66: वृद्धि की आशंका जतायी गई है। पुस्तक का प्रकाशन इटली में हुआ। पुस्तक में बताया गया है कि मनुष्य द्वारा ऊर्जा का अनियंत्रित उपयोग वायुमण्डलीय ताप वृद्धि फाईलीन जैसे चक्रवातों के आने का एक मुख्य कारक है। धरती के बढ़ते हुए तापमान के कारण आज पहाड़ों पर ग्लेशियर पिघल रहे हैं तथा समुद्र के जल स्तर में लगातार बढ़ोतरी हो रही है, इस जलवृद्धि के कारण ही दुनिया में सबसे सुरक्षित समझे जाने वाले अमेरिका के न्यूयार्क शहर को सैंडी जैसी प्राकृतिक आपदा का सामना करना पड़ा।

(ix)Kalptaru Express, Lucknow October 30, 2013

कल्पतरु एक्सप्रेस
www.kalptaruexpress.com
प्रादेशिक
मथुरा, बुधवार, 30 अक्टूबर 2013
9

यूरोपीय पाठ्यक्रम में भारतीय पुस्तक



प्रो. बीआर सिंह

कल्पतरु समाचार सेवा

- 'ग्लोबल वार्मिंग तथा भविष्य में इसके प्रभाव' नामक पुस्तक के लेखक हैं प्रो. बीआर सिंह
- प्रो. सिंह स्कूल ऑफ मैनेजमेंट साइंसेज, लखनऊ के हैं निदेशक
- प्रकाशन के एक महीने बाद अक्टूबर 2012 में अमेरिका में सैंडी तूफान आने से बढ़ी पुस्तक की महत्ता

लखनऊ। ग्लोबल वार्मिंग तथा भविष्य में इसके प्रभाव नामक पुस्तक प्रकाशन के लगभग एक महीने बाद 31 अक्टूबर, 2012 को अमेरिका में सैंडी तूफान ने कहर बरपा दिया। प्रोफेसर बीआर सिंह, निदेशक स्कूल ऑफ मैनेजमेंट साइंसेज, लखनऊ द्वारा सितम्बर, 2012 में दैवीय आपदाओं के आने के कारणों का इस पुस्तक में वर्णन किया गया है। इसके बाद इस पुस्तक को यूरोपीय देशों के कुछ कालेजों के पाठ्यक्रम में शामिल कर लिया गया।

पुस्तक में भयंकर सूखा, चक्रवात जैसी प्राकृतिक आपदाओं की सम्भावनाओं में 66 प्रतिशत वृद्धि की आशंका जतायी गई है। यह पुस्तक इटली में प्रकाशित हुई है। पुस्तक में बताया गया है कि मनुष्य द्वारा ऊर्जा का अनियंत्रित उपयोग वायुमण्डलीय ताप वृद्धि फाइलीन जैसे चक्रवातों के आने का एक मुख्य कारक है।

धरती के बढ़ते हुए तापमान के कारण आज पहाड़ों पर ग्लेशियर पिघल रहे हैं तथा समुद्र के जल स्तर में लगातार बढ़ोत्तरी हो रही है, इस जलवृद्धि के कारण ही दुनिया में सबसे सुरक्षित समझे जाने वाले अमेरिका के न्यूयार्क शहर को सैंडी जैसी प्राकृतिक आपदा का सामना करना पड़ा। वैश्विक तापवृद्धि से आश्चर्यजनक रूप से भूकंप तथा ज्वालामुखी फटने की घटनाओं में वृद्धि होगी। पृथ्वी पर जीवन एक अप्रत्याशित खतरे से घिर जायेगा। मानव जनित इस संभावित विभीषिका से निपटने में पूवार्नुमान सहायक सिद्ध होंगे। प्रो सिंह के इन आकलनों की उपयोगिता को विश्व के कई देशों ने स्वीकार किया है।

सचिव एवं मुख्य कार्यकारी अधिकारी, स्कूल ऑफ मैनेजमेंट साइंसेज, शरद सिंह ने पर्यावरण वैज्ञानिकों का आह्वान करते हुए उन्हें एकजुट होकर ऐसी प्राकृतिक आपदाओं से भविष्य में निपटने के लिए विकल्प की तलाश करने को कहा है।

89.3 KPCC Southern California Public Radio LISTEN LIVE NEWS

Air-O-Cycles

THE LOH DOWN ON SCIENCE

Jan 20, 2011

Easy riding, on air.

And now for a trick Evil Knievel *couldn't* do!
This is Sandra Tsing Loh with the Loh Down on Science.

Meet Bharat Singh, from the SMS Institute of Technology in India. Singh tweaked the design of the typical motorcycle combustion engine to replace the *gas* tank with, yes . . . an *air* tank.
Gas motors work like this: Spray aerated fuel into the cylinder. Add spark. Boom! The explosion - a rapidly expanding volume of hot gas - pushes the motor parts that turn the wheels. The toxic leftovers are tooted out the tailpipe.

Compressed air does exactly the same thing--minus the fireworks and pollution. Cranking the throttle injects extremely dense air into the chamber. It violently expands and you're off to the motocross!

But . . . road trippin' Harley Heads beware: The tank would last about 20 miles before running out of steam. Fixing that's the next step.

Singh estimates that, in areas where Motorcycles Rule - like in most less-developed countries - his *air*-o-cycle could cut total vehicle emissions by up to *sixty* percent.
In short, Houston, we have a wheelie! Or, at least, New Delhi, we have a wheelie. Rock on.

The Loh Down on Science, online, at lohdown.org. Produced by 89.3 KPCC and the California Institute of Technology, and made possible by TIAA-CREF.

(xi)Iran Daily, Iran July 4, 2010

IRAN DAILY

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All Contents: 93
Today Newspaper: Select date

IRAN DAILY Sunday 4 July 2010

08 July 4, 2010

IRAN DAILY » Science

Motorbikes Could Run on Air

Motorcycles powered by a compressed air engine could cut vehicular emissions in developing countries by more than half, according to Indian researchers.

According to LiveScience, the engine, which uses a compressed air tank to power a turbine, could be available to consumers within a year, said Bharat Raj Singh, a researcher at the SMS Institute of Technology in Lucknow, India, and one of the developers of the engine.

A prototype, modeled in a paper published in May in the Journal of Renewable and Sustainable Energy, is capable of running a motorcycle at speeds of up to 50 mph (80 kph) for 30 minutes.

Motorcycles are the primary form of transportation in much of India.

"The bikes are responsible for more than 77 percent of pollution in some areas," Singh said, which could be slashed to almost nothing by swapping gas-guzzling engines for bikes powered by air.

"If we can cut down total pollution in developing countries by 50 to 60 percent, that may be a major quantity which can definitely reduce global warming," Singh said.

Compressed air tanks can be recharged with pumps running off solar or other renewable energy, making them a cheaper, eco-friendly alternative to hybrid electric vehicles, he added.

The engine works by pushing compressed air into a small turbine. The air expands and turns the turbine, powering the motorbike. No fossil fuels are required, and the only waste product is the expanded air.

The major challenge, Singh said, is to develop a compressed air tank that can stand up to long journeys. The current prototype can hold air pressurized to 20 bars, or about 20 times normal air pressure. The researchers are now working to develop a high-pressure tank that can sustain up to 300 bars of pressure. That would boost the running time of the motorbike from 30 minutes to six hours enough to go 155 miles (250 kilometers) without swapping tanks.

If these challenges are overcome, compressed air could power more than motorbikes, Singh said.

The turbine could even be scaled up to power a small car. Similar turbines could be used by individual households to run domestic appliances like vacuums and emergency generators. Families could use wind, solar or electric energy to pressurize their own air tanks, turning homes into miniature power plants, Singh said.

THE FUTURE OF AIR

Air Powered Motorcycles Coming Sooner Than You Think

By Dan Evon

Alternative fuels have been all the craze ever since we started burning a hole in our Ozone layer.

We've seen electric motorcycles, bio-diesel bikes, and prototypes for bikes that run on everything from wind to thunder...yes thunder. But now, a group in India says that they have a new solution to pollution. Air power.

Two scientists in India have designed an engine that uses compressed air to turn a small air turbine. Bharat Raj Singh, one of the scientists, says that his new engine could generate enough power to run a motorcycle for up to 40 minutes at a whopping 11 mph.

Pretty impressive right? No? Well take this into consideration. An air powered motorcycle would have virtually no negative impact on the environment, would have an endless supply of fuel, and would be as cheap as dirt, or air. But there are still a lot of hurdles in the way of an eco-friendly air powered motorcycle.

Right now, the benefits of running a bike on air are canceled out by the energy that is required to compress the air. Singh is currently working on a natural way to compress air so that running the bike wouldn't require the use of any fossil fuels. Also, storing the compressed air can be a problem. The tanks have to be extremely strong, and they have to hold enough air so that you don't run out of breath in just a few miles.

But Singh and his team are on the right track, and in a highly populated and polluted place like India, these bikes could really make a difference. Singh says that emissions could be cut by 60% if his bikes become widely used.

Singh, however, is not the only air power pioneer. Edwin Yi Yuan has designed a concept air-fueled bike named the Green Speed Air Powered Motorcycle. Yuan's bike was designed to break the speed record for an air-powered bike, which right now is at about 18 mph.

The Green Speed machine uses an engine designed by Angelo di Pietro, which revs up to 1000 RPM's, allowing the bike to only need

one gear. Yuan says that once the bike is mass-produced, it will use solar energy to fill the air tanks.

The Green Speed Machine and India's solution to pollution are great, but if you want to see a real Air-powered motorcycle, you have to visit Jem Stansfield, who built his bike in his garage. Yes, Stansfield has a degree in Aeronautics, and has many inventions to his name, but he still made the bike in his garage. Stansfield's bike gets 7 miles before it needs to be refilled, which according to Stansfield, takes just a few seconds. He can reach 18 mph on his bike, but still faces the problem of using electricity or other fuels to compress the air in his tanks.

It isn't likely that you will see a new air-powered Harley Sportster, or a Goldwing floating on air, but air-powered motorcycles are coming, and they will be here sooner than you think.

Annexure-V

2.9 Television coverage, if any, on a CD

Annexure- VI

2.10 Two letters of verification (from people of some standing, who are not part of your organization or related to you)

(i) **Prof. Jagbir Singh,** Principal, College of Architect, UP Technical University, Lucknow.

(ii) **Dr. D. K. Singh,** Department of Social Works, University of Lucknow, Lucknow.

Annexure-VI (i)

Prof. Jagbir Singh, Principal, College of Architect, UP Technical University, Lucknow.

UttarPradeshTechnical University
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वेबसाइट: www.foauptu.ac.in,ई.मेलdean@foauptu.ac.in

Dated: 19th June, 2015

Letter of Verification

This is to inform that Prof.(Dr.) Bharat Raj Singh, Director, School of Management Sciences, Lucknow is well known to me. He is energetic, academically very sound and an erudite persona in the arena of Science & Technology.

He is very instrumental in pervading awareness to the global community specifically in Global Warming and Environmental Pollution. He has been taking incessant pains and has been very industrious for special contribution in the field of "Energy & Environment" for the last 5 years.

I wish Dr.Singh that he continues helping, promoting and catering his veteran experience for improving and consolidating Science & Technology and receiving more laurels in his future endeavors'.

(Prof.Jagbir Singh)
Principal & Dean.
Mob: 918005495522
E-mail: jagbirsingh_arch@yahoo.co.in

Annexure: VI (ii)

Dr. D. K. Singh, Department of Social Works, University of Lucknow,

Mobile : +91-9415105062
Office : +91-522-2740017

Department of Social Work

University of Lucknow, Lucknow-226007 (U.P.) India

Dr. D. K. Singh
Professor & Head

Ref. No. SW/HoD/41/15
Date 22-06-2015

Letter of Verification

This is to inform that **Prof. (Dr.) Bharat Raj Singh**, Director, School of Management Sciences, Lucknow is well known to me. He is energetic, academically very sound and an erudite persona in the arena of Science & Technology.

He is very instrumental in pervading awareness to the global community specifically in Global Warming and Environmental Pollution. He has been taking incessant pains and has been very industrious for special contribution in the field of "Energy & Environment" for the last 5 years.

I wish Dr. Singh my best wishes that he continue helping, promoting and catering his veteran experience for improving and consolidating Science & Technology and receiving more laurels in his future endeavours.

(Dr. D. K. Singh)

Annexure-VII

2.11 A letter from a person of authority, vouching for my record claim:

Press Note **email, Date**: 14th June 2010, 8.40 PM **from JRSE, AIP, USA**

****

New Design for Motorcycle Engines Powered by Compressed Air

Most motorcycles in the world today use engines that bur n gasoline, contributing to greenhouse gasses and adding air pollution to the surrounding area. Now two scientist s in India have conceptually designed a new, cleaner motorcycle engine that uses compressed air to t urn a small air turbine, generating enough power to r un a motorcycle for up to 40 minutes.

Their design, described in a recent issue of t he Journal of Renewable and Sustainable Energy, could be combined with a compressed air cylinder as a replacement for traditional internal combustion engines. In areas where motorcycles are a major source o f public transportation, such a technology could cut emissions substantially if widely implemented.

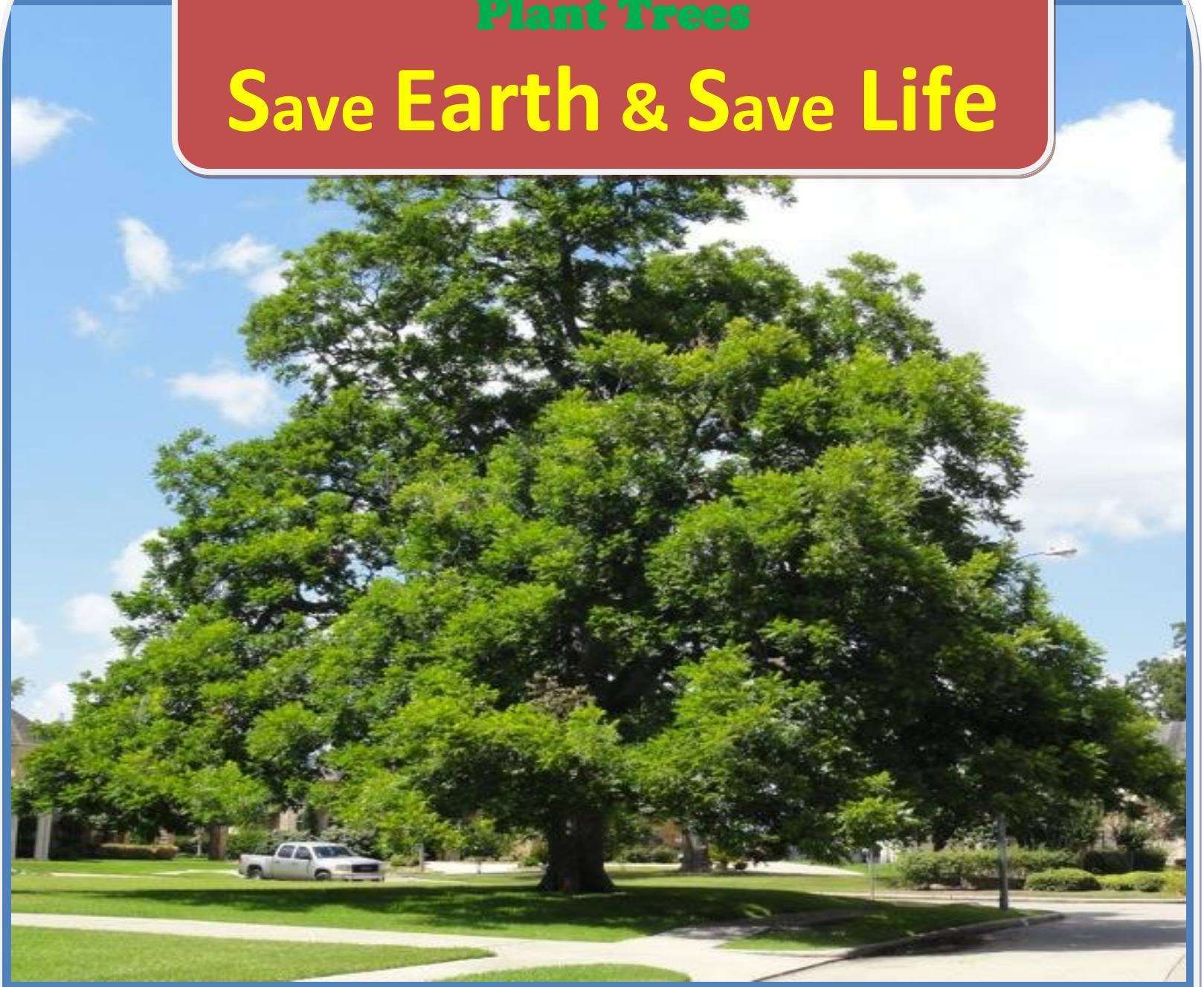
According to ***Bharat Raj Singh,*** one of the two authors on the paper and ***a researcher at the SMS Institute of Technology in Lucknow, India,*** some 50 to 60 percent of present emissions in some areas could be reduced with the new technology, though a number of technical challenges remain. Designing a compact but high-capacity air tank to store sufficient "fuel" for long rides is a major hurdle. Existing tanks would require someone to stop about every 30 km (19 miles) to swap tanks.

The article, "Study of the influence of vane angle on shaft output of a multi-vane air turbine" by Bharat Raj Singh and Onkar Singh was published May 6, 2010 in the Journal of Renewable and Sustainable Energy.

See: http://jrse.aip.org/resource/1/jrsebh/v2/i3/p033101_s1
- JB, JRSE, ENG, CHN
Date: 14th June 2010, 8.40 PM

Plant Trees

Save Earth & Save Life



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