

NEW TECHNOLOGY

How about an air-run bike?

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LUCKNOW: How about a motorcycle that uses compressed air as fuel? It may sound unbelievable but it is true.

An engineer from Lucknow has conceptualised a motorcycle engine, which he claims can use compressed air to generate power to run a motorcycle at least for 40 minutes.

The design by Bharat Raj Singh—an engineer from the state capital was recently published in an issue of *Journal of Sustainable Energy*.

Simply put, the paper puts forth a design that can be combined with a compressed air cylinder as a replacement for traditional internal combustion engines.

“Some 50% to 60% of the 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



■ Bharat Raj Singh being awarded a PhD degree at the GBTU convocation ceremony on Wednesday.

long rides is a major hurdle,” said Singh who is a researcher at the SMS Institute of Technology in Lucknow. He was awarded a PhD degree at the GBTU convocation on Wednesday. He co-authored the paper with another engineer Onkar Singh.

According to Singh, the technology has already been patented and would

find a mention in the gazette next year. Two companies from Thailand and Canada have already approached him to adopt the technology.

For obvious reasons the invention assumes significance in areas where motorcycles are a major mode of public transport as such a technology if widely implemented, could cut

emissions substantially.

“The existing tanks would require the driver to stop at every 30 km to change tanks,” he adds.

The concept that the two engineers describe in the research paper is—a mathematical model of a small capacity compressed air driven air turbine, but one can think of to see it in future in reality.